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Editorial Board

W1– Assessing the evidence for diagnostic imaging guidelines: Going beyond accuracy

Martin H. Reed, MD (Winnipeg, Manitoba, Canada)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Two types of guidelines are being developed for diagnostic imaging, those designed primarily for diagnostic imaging and others for diagnostic imaging as part of more comprehensive clinical practice guidelines. In assessing the evidence for these guidelines, the usual focus is on studies of the accuracy of different diagnostic imaging modalities.

However, in 1991, Fryback and Thornbury published a hierarchical model of the efficacy of diagnostic imaging. They described six levels of efficacy. Accuracy is only the second level in this hierarchy. The third and fourth levels address the effect of diagnostic imaging on the physician's diagnostic confidence and on patient management. The fifth and sixth levels consider the effect of diagnostic imaging on patient outcomes and the societal cost benefits of diagnostic imaging. It is generally possible to assess only interventional radiology and imaging used as a screening technique at the fifth and sixth levels of diagnostic efficacy.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Introduce the hierarchical model of diagnostic imaging efficacy.
2. Show the importance of going beyond the level of accuracy.
3. Illustrate methods of assessing diagnostic imaging beyond the level of accuracy.

DESCRIPTION: The workshop will begin with an introductory talk describing the hierarchical model of diagnostic imaging efficacy and discussing the importance of assessing diagnostic imaging at levels beyond accuracy. Case studies of assessing diagnostic imaging efficacy will then be used to involve the participants in a discussion of methods of assessing diagnostic imaging beyond the level of accuracy.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses.
2. Guideline developer.
3. Health care policy analyst/policy-maker.

W2– Evidence tables III: Prognostic and economic evaluation

Najoua Mlika-Cabanne, MD (Haute Autorité de santé [HAS], Saint Denis La Plaine, France); Robin Harbour, BSc (Scottish Intercollegiate Guidelines Network (SIGN), Edinburgh, Scotland, United Kingdom); Hans de Beer, PhD (Dutch Institute for Healthcare Improvement [CBO], 3502 LB UTRECHT, Netherlands); Rob Cook, MBBS (Bazian Ltd, London, England, United Kingdom); Andreas Gerber, MD (Institute for Quality and Efficiency in Health Car, Cologne, Germany); Sara Twaddle, PhD (Scottish Intercollegiate Guidelines Network (SIGN), Edinburgh, Scotland, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence sharing
BACKGROUND (INTRODUCTION): As part of the effort to meet GIN (Guidelines International Network) objectives in facilitating information sharing and avoiding duplication of efforts, a working group was set up to define a minimum dataset for summarizing the appraised literature (i.e., templates). These standards would be the first step to the goal of encouraging information sharing and avoiding duplication of work. To date, two templates for intervention and diagnostic have been developed by the GIN Evidence Tables Working Group, and two new templates to summarize single studies of prognostic questions and single economic evaluations are currently under development.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify items for summarizing specific studies.
2. Synthesizing evidence.

DESCRIPTION: Short description of the workshop.
THIS WORKSHOP WILL PRESENT: 1) the survey of current templates on prognostic and economic evaluation used by GIN members; 2) a literature search on standards/formats for prognostic and economic evaluation. The presentations will be followed by a discussion of these results.

Main goals of the workshop. The expected outcomes from the workshop are:
- To present and discuss the results.
- To receive the attendees' feedback on it.
- To improve participants' understanding of what is required in a minimum data set for summarizing these studies.
- To take forward the work in defining a potential list of items to be included in each template (i.e., prognostic, economic evaluations).

TARGET GROUPS: This workshop will be of most interest for guidelines or HTA developers, researchers dealing with literature reviews and concerned by evidence-based health care.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products

W3– A new clinical appropriateness tool for practice guidelines: Item generation and refinement

Melissa C. Brouwers, PhD (McMaster University,

Hamilton, Ontario, Canada); Julie Makarski, BSc (McMaster University, Hamilton, Ontario, Canada); Lisa D. Durocher, MSc (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Other evidence generation and synthesis
BACKGROUND (INTRODUCTION): AGREE II targets the methodological rigor in which practice guidelines (PG) are developed and how they are reported as a function of the PG evaluation. Rigorous development and explicit reporting, while necessary, are not sufficient to ensure acceptability and uptake of PG recommendations. Currently, there exist no reliable or valid tools to facilitate the development, reporting, or evaluation of the clinical appropriateness of PG recommendations. Further, there is no consistency in the operational definition or terminology used to label the clinical appropriateness concept. The AGREE Application, Appropriateness, and Action (AGREE A3) Research Team is undertaking a project to 1) define and articulate the concept of clinical appropriateness (CA), and 2) develop a CA tool. The proposed workshop will focus on the first project goal. We seek to collaborate with the PG developer/researcher community to define the concept and items to inform the new tool.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the concept and defining features of the clinical appropriateness of guideline recommendations.
2. Participate in the refinement of the clinical appropriateness definition and contribute to a listing of candidate items to inform development of a new tool.
DESCRIPTION: Objectives of workshop:
- To review the Research Team's systematic review on the topic of CA.
- To create a foundation to develop a refined operational definition.
- To refine a list of candidate items that reflects the concept of CA.

Participants will be presented with results of the systematic review, which will answer: 1) what are the labels and definitions used to capture the concept of CA of recommendations? and 2) what are the defining features that characterize the concept of CA? Through a structured approach, participants will be asked their agreement on the definitions and concepts that emerged, how they should be refined, other concepts deemed important that were not captured in the systematic review, and a review of a candidate list of tool items.
TARGET AUDIENCE(S):
1. Guideline researchers
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products

W4– Medical societies and GIN: A win-win collaboration

Richard Rosenfeld, MD (American Academy Otolaryngology– Head and Neck Surgery, Brooklyn, New York); David Nielsen, MD (American Academy Otolaryngology– Head and Neck Surgery, Alexandria, Virginia); Norman Kahn, MD (Council of Medical Specialty Societies, Chicago, Illinois); David Gutterman, MD (Medical College of Wisconsin, Milwaukee, Wisconsin); Jako Burgers, MD (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development groups/panels/committees
BACKGROUND (INTRODUCTION): Most medical societies recognize the importance of trusted guidelines as a foundation for health care decisions, but few have the expertise to independently produce valid, evidence-based guidelines that meet the needs of their membership. Despite the challenges of guideline development, many medical societies are unaware of support and resources available through the Guidelines International Network (GIN). The purpose of this invited parallel session is to explore the synergy of combining the content expertise of medical societies with the methodological expertise and networking opportunities of GIN.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn how a medical society can benefit from participating in GIN.
2. Recognize GIN resources and networking opportunities that can enhance the ability of a medical society to produce valid guidelines, regardless of their current expertise in guideline methodology.
3. Understand how GIN can assist medical societies and what the societies can provide in return to assist GIN.
DESCRIPTION: This invited parallel session will explore opportunities for successful collaboration between GIN and medical societies. The target audience is members and staff of medical societies interested in learning how involvement with GIN can improve their ability to develop, implement, and assess guidelines of relevance to their membership.

David Nielsen, EVP and CEO of the AAO–HNS, will describe how a society with limited guideline experience developed a thriving program through effective collaboration with GIN and the Cochrane Collaboration. Conversely, David Gutterman, president-elect of the ACCP, will demonstrate how a society with a well-established guideline program can work with GIN to improve and streamline their processes.

The needs, in general, of medical specialty societies relating to guideline development will be discussed by Norman Kahn, EVP and CEO of the CMSS. A critical priority of CMSS, which includes more than 40 members, is to help specialty

societies migrate to a culture of quality improvement and performance measurement. In this regard, Jako Burgers, past chair of the GIN board of trustees, will summarize how GIN can help medical societies with guideline development and how the societies can assist GIN. Time is allotted for audience questions.

TARGET AUDIENCE(S):
1. Medical society members and staff
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator

W5– Critical appraisal instruments for (methodological) search filters for efficient information retrieval for guideline topics

Rikie Deurenberg, MS (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Kitty Rosenbrand, MD (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Marjo Poth, MS (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Leena Lodenius (Finnish Medical Society Duodecim, Helsinki, Finland); Lynda Ayiku, MS (National Institute for Health and Clinical Excelle, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Search filters or hedges are important to retrieve the best available evidence in the context of evidence-based guidelines. To provide information about criteria for selecting search filters, many papers about "search filters" focus on development of filters. Some offer checklists to select the best existing strategy. This workshop will discuss, what are optimal selection criteria to evaluate the quality of existing search filters and what are realistic performance data to expect?

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify optimal methodological search filters for retrieval of the best available evidence with scoring lists and realistic performance data.
2. Make informed decisions about methodological search filters.

DESCRIPTION: The workshop will start to discuss possibilities of scoring lists for evaluation of search filters (a list adapted from Sampson, 2009 and the pragmatic critical appraisal instrument from Bak, 2009). With those lists, existing (methodological) search filters that were in use by several guideline organizations in October 2009 will receive a score. Important criteria are also performance characteristics of the filters. We will discuss what are realistic (in literature also

reported) values for sensitivity, specificity, and precision of filters and how the "validation database" of the SEARCH group can provide those performance data for information retrieval specific for guidelines.

Participants will be asked to evaluate the usefulness of the lists as a tool to facilitate choosing the best search filter. Most information specialists use the PICO(S) (Patient, Intervention, Comparison, Outcome, Study design) model when building a search strategy. Critical appraisal of each of those four elements with scoring systems together with realistic values for sensitivity, specificity, and precision will help to optimize searching.

Results of this workshop will be summarized and discussed.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Allied health professionals

W6– Cutting across national boundaries: Using the C-section to promote guidance development

Craig J. Whittington, PhD (National Collaborating Centre for Mental Health, London, England, United Kingdom); Tim Kendall, MD (National Collaborating Centre for Mental Health, London, England, United Kingdom); Steve Pilling, PhD (National Collaborating Centre for Mental Health, London, England, United Kingdom); Ifigeneia Mavranezouli, MD (National Collaborating Centre for Mental Health, London, England, United Kingdom); Francoise Cluzeau, PhD (National Institute for Health & Clinical Excellence, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) in England has recently established an international arm (NICE International), with the aim of supporting the development of evidence-based practice in international health care and of co-operating with other national programs for mutual benefit. To date, NICE international has worked in a wide range of different countries including China, Jordan, Georgia, and Turkey. Currently, NICE International is helping the Turkish Ministry of Health (MoH) develop a short clinical guideline on caesarean section (two clinical questions). This work is a pilot project and forms part of the MoH strategic plan for the implementation of the Turkish Health Transformation Program. A local team of systematic reviewers and health economists provides technical

support to a Guideline Development Group (health professionals and service users). Working with guideline developers from the National Collaborating Centre for Mental Health, NICE has provided hands-on assistance and training to the Turkish team and the Guideline Development Group. The intention is to improve rates of caesarean section and to increase the capacity of the MoH to establish a guidance development program.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the technical, linguistic, and cultural challenges encountered when working across borders to produce clinical guidance.
2. Identify the different ways health systems are influenced by local issues and find solutions to help improve guideline development and implementation.
3. Examine how, in some circumstances, clinical guideline development might evolve from producing evidence-based textbooks to flexible evidence-based encyclopedias.

DESCRIPTION: This highly interactive workshop will be split into three parts: 1) An introduction to NICE International and the project with Turkey, highlighting, from NICE's perspective, the technical, linguistic, and cultural challenges, and the fresh perspectives it has brought for us; 2) How are different health care systems influenced by local issues? A discussion of how these issues impact on guideline development and implementation; 3) Evidence-based textbook or evidence-based encyclopedia? A discussion of how guideline development might become more focused around answering a given set of clinical questions rather than attempting to evaluate a certain clinical condition.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products

W7– Developing dynamic tobacco control guidelines in Canada
Peter Selby, MBBS (Centre for Addiction and Mental Health - CAN-ADAPTT, Toronto, Ontario, Canada); Jess Rogers, BA (Centre for Effective Practice, Toronto, Ontario, Canada); Katie Hunter, MSc (Centre for Addiction and Mental Health - CAN-ADAPTT, Toronto, Ontario, Canada); Tamar Meyer, MA (Centre for Addiction and Mental Health - CAN-ADAPTT, Toronto, Ontario, Canada); Janet Ngo, MA (Centre for Addiction and Mental Health - CAN-ADAPTT, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods

BACKGROUND (INTRODUCTION): Health care practitioners do not consistently implement clinical practice guidelines (CPGs) for tobacco control. Barriers to use can be attributed to the traditional research-driven development process. CAN-ADAPTT (Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment) aims to overcome this in developing Canada's first CPGs for tobacco control. By facilitating research and knowledge exchange among practitioners, this non-traditional guideline development process will be dynamic; reflecting an evolving evidence base, practice environment, client/patient need, and treatment opportunities.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn the process used to develop Canadian clinical practice guidelines (CPGs) for tobacco control.
2. Understand the benefits of a dynamic guideline development process using online features.
3. Understand challenges to guideline development using a practice-based network (PRBN) and discuss ways to overcome them.

DESCRIPTION: Participants will be introduced to the process CAN-ADAPTT used to develop a national set of clinical practice guidelines (CPGs). This involved systematically searching and compiling existing guidelines on tobacco control followed by using the AGREE instrument to determine the highest-scoring CPGs. User feedback was then incorporated through review cycles, creating guidelines applicable to multiple contexts and responsive to the needs of diverse target users. The dynamic nature of these guidelines is facilitated through the creation of a Practice-Based Research Network (PBRN) where users define and frame research questions informed by their practices. Seed grants were offered for the pursuit of research in treating tobacco; an online platform was created to ensure the guidelines are reflective of the real needs of its users; and a discussion board encourages input from practitioners and knowledge exchange among PBRN members. Interactive discussion will focus on engagement of users throughout the guideline development and dissemination process.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Health care policy analyst/policy-maker
6. Allied health professionals
7. Nurses

W8– Applicability of clinical practice guidelines to patients with comorbid conditions: how to address comorbidity in guidelines?
Marjolein Lugtenberg, MS (Tilburg University, TRANZO, Tilburg, Netherlands);

Klara Brunnhuber, PhD (BMJ Group, London, England, United Kingdom); James Woodcock, MD (London School of Hygiene and Tropical Medicine, London, England, United Kingdom);
Gert P. Westert, PhD (Tilburg University, TRANZO, Tilburg, Netherlands); Jako S. Burgers, PhD (IQ Healthcare, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for patients with multiple co-morbidities
BACKGROUND (INTRODUCTION): Almost half of the patients with a chronic disease have more than one disease. Despite this, clinical practice guidelines as well as underlying reviews and clinical trials tend to focus on the diagnosis and treatment of single diseases. The applicability to patients with comorbid conditions may therefore be limited, posing challenges to guideline developers, clinicians, and patients. The aims of the workshop are to discuss the applicability of clinical practice guidelines to patients with comorbid conditions and to explore ways to address the issue of comorbidity in guidelines. This includes the search and selection of the evidence and the translation of the evidence into recommendations for clinical practice.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Improve knowledge on the applicability of guidelines to patients with comorbid conditions.
2. Understand and reflect on the practical issues and challenges that guideline developers, researchers, and clinicians face when trying to deal with comorbidity.
3. Know how to use a systematic approach to address comorbidity for both researchers and clinicians.

DESCRIPTION: In the first part of the workshop, we will discuss the applicability of practice guidelines to patients with comorbid conditions by presenting the results from a recently conducted study. A plenary discussion will follow to provide opportunities to share experiences.

In the second part of the workshop, we will present a framework that focuses on the following four areas of comorbidity:

1. Diseases with consistent impact across conditions
2. Most common disease combinations
3. Combinations associated with high disease and resource burden
4. Disease combination with specific clinical problems relating to diagnosis, monitoring, and treatment.

After introduction to the framework, we will explore whether and how the framework might support the work of guideline developers aiming to integrate comorbidity within existing or new guidelines. Interactive exercises will give participants the opportunity to use the framework in different settings and contexts.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Medical providers and executives
6. Allied health professionals

W9– A quality-driven, pragmatic approach to crafting guideline action statements and evidence profiles

Richard Rosenfeld, MD (American Academy of Otolaryngology–Head and Neck Surgery, Brooklyn, New York); Richard Shiffman, MD (New Haven, Connecticut)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): Key action statements, also called recommendations, differentiate guidelines from clinical reviews. This interactive workshop outlines a quality-driven, pragmatic approach to crafting guideline action statements using tested methodology for producing clinical practice guidelines within 12 months from conception to publication. Despite the importance of key action statements, guideline panels often struggle in developing clear guidance that can be implemented and assessed. We will illustrate successful methods for developing actionable statements using a brief presentation followed by engagement of attendees as a mock guideline development panel.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Learn how key action statements and evidence profiles can be used to develop transparent, pragmatic guidelines that can be implemented for quality improvement.
2. Develop skills in prioritizing a topic list for quality improvement, drafting action statements, and using evidence profiles to determine recommendation strength.
3. Create a mock mini-guideline on "Management of the Common Cold" to illustrate principles and to engage attendees in an interactive learning environment.

DESCRIPTION: The panel (attendees) will create a mini-guideline on "Management of the Common Cold" by identifying quality improvement opportunities, drafting a topic list, prioritizing the topics, drafting key action statements from the topics, and assigning fictitious evidence profiles that will be used in determining recommendation strength for each statement. Emphasis is placed on creating clear, actionable statements to facilitate implementation. Attendees will receive a complete Guideline Development Manual, which thoroughly describes and illustrates principles developed in the workshop, plus a sample clinical practice guideline that was created using the suggested approach.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Medical providers and executives
5. Allied health professionals
6. Consumers and patients representatives
7. Nurses

W10– Breaking the barrier: Enhancing ACCP guideline implementation in China

Renli Qiao, MD (University of Southern California, Los Angeles, California); Richard Irwin, MD (University of Massachusetts, Worcester, MA, Worcester, Massachusetts); Paul Kvale, MD (Wayne State University School of Medicine, Detroit, Michigan)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): The Organizing Committee for 2010 ACCP-China Conferences. Despite improved information access, Western guidelines draw little attention in China. The following are the major barriers:

1) Separation and Irrelevance – Medical teaching and licensing are strictly standardized under governmental regulation. Consequently, medical trainees are used to being TAUGHT with processed knowledge, but not to literature reading, rendering foreign guidelines irrelevant.

2) Cultural Differences – The dominant Confucianism strongly emphasizes the absolute authority of teachers. Traditionally, clinical practice relies heavily on experience so that guidance is expected from seniors. In contrast, Western guidelines tend to merely list data, obscuring the power of "guiding."

3) Language Barriers - Most Chinese professionals lack sufficient English proficiency for independent reading.

We propose the following strategies for guideline implementation in China:

1) Involvement, in the guideline development, of experts who can make the writing style familiar to Chinese doctors.

2) Participating in Chinese conferences. Direct lecturing eliminates remoteness, provides interpretation, and thereby enhances acceptance of the guidelines.

3) Establishing connection with professional societies and regulating agencies.

We organize several annual conferences in China to deliver guideline-based lectures. These conferences attract increasingly larger audiences each year and are now endorsed by ACCP and the Chinese Respiratory Society. In the future, we plan to set themes for each conference and construct a Chinese e-library of ACCP guidelines to systemically promote their implementation. We seek collaborations from GIN.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify barriers to guideline implementation in China.
2. Propose strategies to enhance implementation.
3. Introduce our effort for guideline implementation.
4. Seek collaborators to join our effort.

DESCRIPTION: We will describe unique features in the styles of clinical practice in China and how these cultural differences impede Western guideline implementation. We will introduce our effort in promoting ACCP guidelines implementation and ACCP impacts in China. We will appeal to GIN to join our effort.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical educator
5. Health care policy analyst/policy-maker
6. Medical providers and executives
7. Allied health professionals

W11– Opportunity for guideline developers, implementers, and end users to work together to improve guideline implementation

Susan M. Phillips, PhD (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Susan Deborah Huckson, BSc (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Ian D. Graham, PhD (Canadian Institutes of Health Research, Ottawa, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): The biggest challenge in guideline development remains ensuring that guidelines are effectively implemented. Despite the availability of tools such as the Guideline Implementability Appraisal Instrument (GLIA), guideline developers, guideline implementers, and end users should be encouraged to work together to maximize opportunities for improving the implementation of guidelines from the earliest stages of development. The purpose of this workshop is to provide an opportunity for guideline developers, guideline implementers, and end users to identify important steps that could be included during the development phase to assist subsequent implementation.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To identify learning from guideline implementers and end users for consideration by guideline developers.
2. To improve guideline developers' knowledge and understanding of implementation.
3. To improve guideline implementers' and end users' understanding of their role in guideline development.

DESCRIPTION: Presenters will provide background information on developers' efforts to use participatory approaches

to guideline development and a summary of guideline implementation research, theories of change, and specific examples. Participants will be invited to break into smaller groups and to focus on what can be done during the guideline development process to increase the likelihood of implementation. Participants will be asked to explore factors such as those identified in GLIA but will also be encouraged to focus on other possible strategies such as:

- Collaborative and participatory approaches to guideline development
- Greater involvement of end users at different stages of the development process
- Post-implementation review of guideline development

TARGET AUDIENCE(S):
1. Health professionals
2. Clinical researcher
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Allied health professionals
8. Consumers and patients representatives
9. Nurses

W12– Getting to the heart of guideline implementation using social marketing approaches

Catherine Marshall (Independent Guideline Adviser, Waipukurau, Central Hawkes Bay, New Zealand); Marama Parore (NZ Pharmaceutical Management Agency, Wellington, New Zealand)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health care systems
BACKGROUND (INTRODUCTION): Social marketing efforts in both domestic and international settings have been successful at improving the lives and health status of targeted individuals and communities. (Thackeray R, Neiger BL. Use of social marketing to develop culturally innovative diabetes interventions. Diabetes Spectr 2003;16:15-20).

Most existing guideline implementation methodologies recognize the importance of motivation for change – practicing and challenging the acceptance and beliefs of health care workers and consumers. However, there has never been a clear description of how to conquer these barriers. To date, many guideline agencies have focused on the delivery of a range of products – such as education interventions, reminder systems, clinical audit and feedback, and patient-mediated interventions. This workshop builds on work undertaken in New Zealand in 2009 to implement a revised cardiovascular guidelines handbook for primary care practitioners, and discusses how to take a fresh look at how to deliver recommendations to those at highest health need. The workshop explores how social

marketing techniques were incorporated into the implementation program with the result that the program gained widespread support from health care practitioners, and created huge demand and interest from consumer groups. The workshop also explores ways to actively engage with indigenous peoples and vulnerable communities who are marginalized from mainstream services yet have the highest health need.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Introducing social marketing as a paradigm for implementing guidelines.
2. Demonstrating how authentic consumer participation in guideline implementation is powerful and influential.
3. Proactive planning of guideline implementation.

DESCRIPTION: Case studies from a New Zealand cardiovascular guideline implementation project will be used to introduce interactive exercises. Participants will take part in an interactive workshop experience that provides opportunities for them to incorporate social marketing techniques into their guideline implementation projects.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Health care policy analyst/policy-maker
5. Health insurance payers and purchasers
6. Allied health professionals
7. Consumers and patients representatives
8. Nurses

W13– Primary prevention in primary care: Avoid recreating the wheel

Jess Rogers, BA (Centre for Effective Practice, Toronto, Ontario, Canada); Kelly Lang-Robertson, MA (Centre for Effective Practice, Toronto, Ontario, Canada); Stephanie Bell, MSc (Centre for Effective Practice, Toronto, Ontario, Canada); Eva Grunfeld, MD (University of Toronto, Toronto, Ontario, Canada); Donna Manca, MD (University of Alberta, Edmonton, Alberta, Canada); Denise Campbell-Scherer, MD (University of Alberta, Edmonton, Alberta, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health care systems
BACKGROUND (INTRODUCTION): The BETTER (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Family Practice) project aims to improve chronic disease prevention and screening for heart disease, diabetes, and cancer, including lifestyle factors.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Explore process barriers and facilitators in developing indicators and selecting tools.

2. Share experiences in selecting and considering evidence across clinical conditions.
3. Discuss challenges integrating primary prevention messages in primary care practice.

DESCRIPTION: This workshop will describe the process by which information across disease areas was selected and integrated into implementation strategies at both practice and patient levels (e.g., audit and feedback, computer-based decision support and prompts, prevention practitioners, etc.) The emphasis was to build from what already exists and to leverage the knowledge of the participating practices to develop effective toolkits and strategies for implementation. The first step in this process was to review current guideline recommendations and existing tools to determine relevance to the primary care setting and feasibility for uptake. Guidelines published in each clinical area were identified using a very direct search strategy that focused on currency and relevance to the clinical setting. Guidelines were then evaluated using the AGREE domains as a guide in order to determine which had good rigor of development, editorial independence, and had recommendations that were linked directly to the evidence. Recommendations from the top three to five highest ranking guidelines were extracted along with their levels of evidence. These recommendations were compared to one another and considered within the local context to select the recommendations that would form the basis for our interventions.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policy-maker
8. Medical providers and executives
9. Allied health professionals

W14– Developing quality indicators from clinical guideline recommendations: Learning from the NICE and Duodecim approaches

Tim Stokes, MBChB (NICE, Manchester, England, United Kingdom); Raija Sipila, MD (Finnish Medical Society - Duodecim, Helsinki, Finland); Eeva Ketola, MD(Finnish Medical Society - Duodecim, Helsinki, Finland)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines
BACKGROUND (INTRODUCTION): Clinical guidelines offer recommendations for clinical practice based on evidence of clinical effectiveness. Quality indicators (QI) are a measur-

able element of practice performance with either evidence or consensus that can be used to assess and potentially improve the quality of care. Guidelines and QIs are, however, often developed separately, and it is often unclear whether QIs are evidence-based. There is increasing interest in the development of indicators from clinical guidelines and debate about the most appropriate development methods. Both NICE in the UK (QOF for general practice and Quality Standards) and the Finnish Current Care Guidelines have recently established programs to develop such indicators.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Share the experiences of different guideline developers on how quality indicators are developed in different health care systems.
2. Understand what makes a good quality indicator.
3. Understand the steps that need to be undertaken when developing quality indicators from clinical guideline recommendations.
4. Understand the impact of the process on the final indicator.

DESCRIPTION: A facilitated interactive workshop will use case studies from NICE and Current Care to determine the steps that need to be undertaken when developing indicators for clinical guideline recommendations. These steps will include the selection and prioritization of clinical guideline recommendations for indicator development, operationalization of the indicator including the development of the wording of the indicator, and piloting of the draft indicator. These steps will be discussed in terms of their effect on the quality of the indicator (its validity, acceptability, and feasibility).

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policy-maker
7. Health insurance payers and purchasers

W15– Key measure attributes: Using the National Quality Measures Clearinghouse Template of Measure Attributes to select measures

Mark J. Monteforte, MD (ECRI Institute, Plymouth Meeting, Pennsylvania); Melanie M. Swan, MPH (ECRI Institute, Plymouth Meeting, Pennsylvania); Vivian H. Coates, MBA (ECRI Institute, Plymouth Meeting, Pennsylvania); Mary P. Nix, MS (Agency for Healthcare Research and Quality, Rockville, Maryland)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines

BACKGROUND (INTRODUCTION): The National Quality Measures Clearinghouse (NQMC), sponsored by the Agency for Healthcare Research and Quality (AHRQ), is a comprehensive database of information on specific evidence-based health care quality measures and measure sets. When NQMC was launched in 2003, there were four measure domains: process, outcome, access, and patient experience. There are now seven domains represented in NQMC, and this number will continue to grow. It is important to note that not all measures were developed to achieve the same purpose. Measures intended to answer a specific research question may be very different than measures intended for accountability, and consequently, some measures will produce less valid results than other measures. At a time when incentives are being tied to performance, choosing scientifically sound and robust measures has taken on greater importance. The validity of measure results depends upon how the measure is built and whether it is built to address the purpose chosen by the user. The NQMC Template captures key building blocks that can be used to assess the validity of a measure for a given purpose.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Use key measure attributes in the NQMC Template to critically evaluate measures.
2. Understand the limitations of using measures for different purposes.

DESCRIPTION: This workshop will demonstrate how certain key measure attributes in the NQMC Template may be used to evaluate the validity of a measure for an intended purpose. Use-case scenarios will be presented to allow the attendees to work through specific examples.

TARGET AUDIENCE(S):
1. Guideline developer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Health care policy analyst/policy-maker
5. Health insurance payers and purchasers
6. Medical providers and executives
7. Consumers and patients representatives

S1– An evaluation of pathway modeling to assess cost-effectiveness in guidelines

Prashanth S. Kandaswamy, MS (Presenter) (NICE, Manchester, England, United Kingdom); Francis Ruiz (NICE, London, England, United Kingdom); Edward Mwarangu (NICE, Manchester, England, United Kingdom); Yaminah Rajput (NICE, Manchester, England, United Kingdom); Kim Jeong (NICE, London, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Cost-effectiveness research
BACKGROUND (INTRODUCTION): With health-care systems under increasing financial pressures, cost-effectiveness analysis is an area of increasing interest. The economic modeling of pathways of care and service configuration is not common, but potentially could offer significant and valuable information on the organization of health care. In association with National Collaborating Centres, the National Institute for Health and Clinical Excellence (NICE) produces guidelines on the appropriate treatment and care of people, which have included pathway modeling. We will explore the methods, opportunities, and challenges pathway modeling offers in clinical guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn of methods to carry out cost-effectiveness analysis of clinical pathways.
2. Understand the challenges and opportunities of using more extensive cost-effectiveness analysis in guideline development.
3. Identify potential areas of future development for health economics in clinical guidelines.

METHODS: A retrospective analysis of published NICE clinical guidelines, with the aim of identifying and extracting methodology applied to analyzing the cost-effectiveness of pathways of care and service configuration. We will examine how these analyses relate to the final recommendations.
RESULTS: We will present a review of the methodologies utilized when modeling clinical pathways in NICE guidelines. We will examine how the methods chosen relate to the clinical questions under discussion. We will examine how decision makers interpreted these analyses and how they affected the formation of recommendations. We will present an outline of the challenges facing guideline developers when incorporating pathway modeling into their cost-effectiveness analysis.
DISCUSSION (CONCLUSION): We will assess the appropriateness of the methodologies used and whether they had a significant impact on the decision-making process. We will examine the potential benefits and opportunities of modeling pathways of care. We will also discuss the potential challenges these methods pose to guideline developers in terms of skills and resourcing. Finally, we will consider what the future of pathway modeling is in clinical guidelines and how methods could develop.

TARGET AUDIENCE(S):
1. Health economists
2. Guideline developer
3. Developer of guideline-based products
4. Health care policy analyst/policymaker

S2– Combining GRADE, patient reported outcomes, and costs in the NICE Lower Urinary Tract Symptoms (LUTS) Guideline

Elisabetta Fenu, MS (Presenter) (National Clinical Guidelines Centre, London, England, United Kingdom); Clare N. Jones, MS (London, England, United Kingdom); David Wonderling (NCGC, London, England, United Kingdom); Lee-Yee Chong, PhD (NCGC, London, England, United Kingdom); Jennifer Hill, PhD (NCGC, London, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Cost-effectiveness research
BACKGROUND (INTRODUCTION): An economic model was developed for the LUTS Guideline to compare the cost-effectiveness of a drug combination therapy with a single drug in men with LUTS. In order to estimate quality-adjusted life years (QALYs), we linked patient-reported outcomes into quality-of-life (QoL) measures using the minimal important difference (MID) as identified with GRADE.
PURPOSE: To describe how using GRADE helped in the construction of an economic model.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Use the minimal important difference in the construction of an economic model.
2. Understand the importance of a close collaboration between reviewers and health economists.

METHODS: The MID for International Prostate Symptom Score (IPSS, range 0-35) was determined for the purpose of imprecision grading in GRADE and for determining what was a clinically important result. We linked this variable to the effectiveness in the model and we analyzed how results changed when the MID was varied.
RESULTS: The Guideline Development Group considered the MID for IPSS to be 3 points; in the model, the proportion of patients with at least this improvement in each arm was estimated and constituted the remission group. QoL values associated with remission were used for this group while QoL values associated with LUTS were used for the remaining group of patients. The combination strategy was not cost-effective when an MID of 3 points was used. This strategy was still not cost-effective for any plausible value of MID.
DISCUSSION (CONCLUSION): Estimating the MID could make a difference in the results of cost-effectiveness analyses for outcomes that have a big impact on QoL. Collaboration between clinical reviewers, health economists, and

patients' representatives is helpful in deciding whether changes in health outcomes are large enough to justify the cost.

TARGET AUDIENCE(S):
1. Health economists
2. Clinical researcher
3. Evidence synthesizer, developer of systematic reviews or meta-analyses
4. Guideline developer

S3– Cost-effectiveness of the fecal occult blood test (FOBT) for colorectal cancer screening in Colombia

Licet Villamizar (Instituto Nacional de Cancerología, Bogotá, Cundinamarca, Colombia);
Oscar Gamboa, MD (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Daniel Anzola, MD (Presenter) (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Ricardo Sánchez, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Giancarlo Buitrago, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Mónica Ballesteros, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Felipe Zamora, MSc (Instituto Nacional de Cancerología, Bogotá, Colombia)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Cost-effectiveness research
BACKGROUND (INTRODUCTION): There is evidence of the usefulness of the FOBT for colorectal cancer screening; however, the controversy between guaiacum and immunochemistry has not been settled. A cost-effectiveness study was conducted to determine the most effective test and test intervals for FOBT in life-years gained in asymptomatic individuals over 50 years old from the perspective of a third-party payer in Colombia.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Present the microsimulation model for screening strategies.
2. Compare the characteristics of the Markov process with those of other models.

METHODS: The model consists of nine transition states that cycle annually until the individual dies from cancer or natural causes or reaches the Colombian life expectancy; 100 cohorts were simulated each with 100,000 individuals. The sensitivity analyses included costs, discount rates, coverage, and follow-up.

RESULTS: Using the gross domestic product (GDP) per capita (US\$4,893.50 for 2007) as willingness to pay, the most cost-effective test was the biannual guaiacum; the most effective test, but with higher costs, is annual immunochemistry. The cost per additional life-year gained was US\$5,014.17, US\$8,411.31, and US\$10,746.76 for biannual guaiacum, biannual immunochemistry, and annual immunochemistry, respectively. The results were sensitive to the cost of the tests:

biannual guaiacum is cost-effective if the cost of the three tests is under US\$2.48 per test; the immunochemistry strategies are cost-effective if the test cost is under US\$9.95.

DISCUSSION (CONCLUSION): According to incremental cost-effectiveness ratios the most cost-effective strategy for asymptomatic patients over 50 years of age in Colombia is the biannual FOBT test with guaiacum.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S4– Diagnosis: Interpreting evidence in the absence of a reference standard—two case studies from national guidelines

Alfred W. Sackeyfio (Presenter) (NICE, Manchester, England, United Kingdom); Faisal Siddiqui, MPH (NICE, Manchester, England, United Kingdom); Beth Shaw, PhD (NICE, Manchester, England, United Kingdom); Abitha Senthinathan, MSc (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Typically, studies of diagnostic test accuracy assess measures such as sensitivity, specificity, positive and negative predictive values, and, in more sophisticated analyses, likelihood odds ratios and diagnostic odds ratios. When possible, results from more than one study can be combined to produce summary statistics. Determining these measures is scientifically plausible and statistically appropriate if there is a gold or reference standard for the comparison of the index or new test. In reality, a single valid and reliable reference standard is not always available.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To review guidance on diagnostic studies without a gold standard.
2. To describe two case studies where a single valid and reliable reference standard was not available.

METHODS: We reviewed published guidance on how to assess and interpret the results of diagnostic accuracy studies in the absence of a reference standard. We also conducted systematic reviews of diagnostic studies without reference standards for two national guidelines: diagnosing latent TB and

assessing respiratory impairment in people with motor neuron disease.

RESULTS: We will present findings of reviews of published guidance and explore practical issues of applying these through comparing and contrasting the two approaches. Examples such as the utility of a set of diagnostic tools and the identification and use of appropriate surrogate measures will be presented. We will discuss how recommendations can be developed in the absence of a single valid reference standard and the acceptability of this concept in guideline development.

DISCUSSION (CONCLUSION): Secondary researchers and guideline developers must embrace the use of innovative techniques when accepted methods of assessment and appraisal cannot be used; this is particularly relevant to the assessment of diagnostic studies as single valid and reliable reference standards may not be available.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Health care policy analyst/policymaker
7. Allied health professionals
8. Consumers' and patients' representatives

S5– Generalizability of results from randomized trials: A systematic overview of possible approaches

Piet N. Post, PhD (Presenter) (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Gordon H. Guyatt (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Randomized controlled trials (RCTs) are the preferred source for recommendations on the effect of treatment. Unfortunately, patients participating in RCTs frequently differ in many aspects from the majority of patients seen in practice. Therefore, guideline developers have to decide whether the results are generalizable to the target population not represented in RCTs.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Discuss available methods used to decide on generalizability.
2. Provide guidance on how to decide whether the results are generalizable to the target population that was not represented in RCTs.

METHODS: A systematic review of the literature was undertaken to identify methods that can be used to decide the circumstances under which the results from RCTs can be generalized to patients who were not represented in these trials.

RESULTS: A frequently recommended approach is that the trial population should be representative of the broad patient group. Numerous exclusion criteria applied in trials would diminish the generalizability. To evaluate the extent of the generalizability, one would have to examine the inclusion and exclusion criteria of trials and infer from these whether the trial population was sufficiently representative. Other authors suggest, because of the inclusion of a broader range of patients, reliance on observational studies if no direct evidence for the target population is available. A different view is to apply the results of trials to patients in practice unless there is a compelling reason to believe the results would differ substantially as a function of particular characteristics of those patients. This approach is supported by empirical evidence that, in general, treatment effects seldom differ to an important extent across subgroups of patients.

DISCUSSION (CONCLUSION): We propose this last approach, focusing on RCTs unless there is compelling reason not to do so. Compelling reasons will most often be found with respect to issues of rare adverse effects, for which observational studies are likely to provide the best estimates.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer

S6– Validation and modification of the Graphical Appraisal Tool for Epidemiology (GATE) for appraising studies in evidence-based guideline development

Anita Fitzgerald (Presenter) (New Zealand Guidelines Group, Auckland, New Zealand); Jessica Berentson-Shaw (New Zealand Guidelines Group, Wellington, New Zealand)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): The Graphical Appraisal Tool for Epidemiology (GATE) is a set of five critical appraisal tools developed by the EPIQ collaboration in New Zealand comprising systematic reviews, intervention studies (randomized and nonrandomized), prognostic studies, and diagnostic studies. These tools were developed primarily for teaching purposes.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To test inter-rater reliability for individual items on GATE checklists, to document reviewers' experience using GATE.
2. To modify GATE for use by the New Zealand Guidelines Group (NZGG) in guideline development.

METHODS: Each study design was evaluated in two rounds; two reviewers independently completed GATE checklists from sample studies included in clinical practice guidelines. Agreement between reviewers was calculated for each item using prevalence-adjusted bias-adjusted kappa (PABAK) and reviewers' experiences of using the tool were documented.

Each tool was modified and retested in a subsequent round of appraisals. Final amendments to each tool were then made.

RESULTS: Both percentage agreement and inter-rater reliability between reviewers for individual GATE items in the first round were variable for all five study designs. Agreement on summary scores was generally rated poor for all categories, mostly due to individual interpretations of which checklist items were important in contributing to the final assessment. Amendments to checklists included both amendments to individual checklist questions and/or the accompanying explanatory notes. Following discussion between reviewers and amendment to checklist items, crude agreement and PABAK scores in the second round for all five study designs showed improvement, including summary scores in most cases.

DISCUSSION (CONCLUSION): The amended GATE checklists demonstrate improved inter-rater reliability for appraising studies. This study shows how critical appraisal checklists used in guideline development could be systematically improved by undertaking inter-rater reliability assessments to improve the reliability of critical appraisal processes during the production of an evidence-based guideline.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Quality improvement manager/facilitator

S7– From evidence to practice in countries where health policy is not evidence-based

Hayfaa A. Wahabi, MBBS (Presenter) (Al Riyadh, Saudi Arabia); Lubna A. Al-Anasary, BSc (EBHC&KT, King Saud University, KSA, Al Riyadh, Saudi Arabia); Rasmieh A. Alzeidan, BScPharm (EBHC&KT, King Saud University, KSA, Al Riyadh, Saudi Arabia); Ghada A. Bawazeir, BScPharm (EBHC&KT, King Saud University, KSA, Al Riyadh, Saudi Arabia)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence sharing
BACKGROUND (INTRODUCTION): In many countries there are no formal institutions for evidence synthesis to inform the health policy. In Saudi Arabia, the chair of Evidence-Based Health Care and Knowledge Translation (EBHC&KT) developed a program for capacity building in knowledge translation. Some of the elements of this program are the subject for this workshop.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Highlight the importance of evidence-based health policy in countries with poorly developed institutions for evidence synthesis and implementation.
2. Introduce to the participants the knowledge translation cycle (KTC) with practical applications.
3. Introduce the concept of the extended role of the clinician as scientist and knowledge broker in countries where skills for synthesis, formulation, and implementation of evidence are scarce.

METHODS: 1) The main concept of the workshop will be introduced by a 10-minute presentation of the KTC using a practical example of selecting a priority health problem, searching the literature, extracting and formulating the evidence, and communicating the recommended outcome to the policymakers. 2) The participants will be divided into small groups of 3-4 according to the attendance. 3) A scenario will be given. 4) Participants will be coached through the KTC to get the evidence for effectiveness for the health priority in the scenario and to communicate it to the policymakers, taking into consideration to address all possible arguments for cost and facilities using evidence such RR, RRR, and NNT in a lay person's language (50 minutes). 5) All group discussion will be conducted during the last 30 minutes.

RESULTS: None provided.
DISCUSSION (CONCLUSION): N/A.
TARGET AUDIENCE(S):

1. Guideline implementer
2. Medical educator
3. Health care policy analyst/policymaker
4. Medical providers and executives
5. Allied health professionals
6. Nurses

S8– Adopting a realist review approach to conceptualizing the relationship between the perceived characteristics of clinical practice guidelines and their uptake

Onil Bhattacharyya, PhD (Presenter) (St. Michael's Hospital, Toronto, Ontario, Canada); Elizabeth Estey, MA (St. Michael's Hospital, Toronto, Ontario, Canada); Monika Kastner, PhD (St. Michael's Hospital, Dundas, Ontario, Canada); Sharon Straus, PhD (St. Michael's Hospital, Toronto, Ontario, Canada); Jeremy Grimshaw, PhD (Ottawa Health Research Institute, Ottawa, Ontario, Canada); Merrick Zwarenstein, PhD (Sunnybrook Research Institute, Toronto, Ontario, Canada); Andreas Laupacis, MD (St. Michael's Hospital, Toronto, Ontario, Canada); Ian Graham, PhD (Canadian Institutes of Health Research, Ottawa, Ontario, Canada)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Other evidence generation and synthesis
BACKGROUND (INTRODUCTION): Although the concept of implementability (defined as "a set of characteristics that predict the relative ease of guideline implementation") has been operationalized in the Guideline Implementability Appraisal (GLIA) tool, the relationship between the perceived characteristics of clinical practice guidelines (CPGs) and their uptake in practice is not clearly understood. Synthesizing the literature in this area, which spans disciplines and terminologies, is difficult using traditional systematic review methods.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify a unique approach to reviewing the literature.
2. Understand the relationship between the perceived characteristics of guidelines and their uptake in practice.
3. Assess a preliminary set of characteristics of guidelines that impact the uptake of guidelines in practice.
4. Identify the trade-offs associated with the preliminary list of guideline characteristics.

METHODS: To explore the relationship between the perceived characteristics of CPGs and their use, we drew from the realist review approach pioneered by Ray Pawson. This unique approach incorporated qualitative methods such as purposive, snowball, and opportunistic sampling, as well as some of the search methods of traditional systematic reviews.

RESULTS: The modified realist review enabled the examination of relevant fields, literature, and theories and facilitated collaboration with experts to clarify the relationship between CPG characteristics and guideline uptake. The preliminary set of seven guideline dimensions drawn from this review–actionable, clear, complex, evidence-based, feasible, flexible, specific–were conceptualized as a series of trade-offs, as the presence of one or more characteristics can differentially impact the presence of another and can be differentially valued by guideline developers and guideline users.

DISCUSSION (CONCLUSION): Realist review-informed synthesis is an effective method for reviewing complex and under-theorized topics. The preliminary set of dimensions (and their trade-offs) demonstrates that steps to improving guideline uptake may require the facilitation of dialogue among guideline developers and users. The inclusion of end-users in this dialogue is primary, as we argue that uptake is best judged by those who use CPGs. Ongoing work involves validating these dimensions and developing a tool to negotiate these trade-offs.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products

S9– GRADE: Adaptation of GRADE evidence profiles to different evidence types–a case study of NICE motor neuron disease–non-invasive ventilation guideline

Toni Py Tan, MSc (NICE, Manchester, England, United Kingdom); Faisal Siddiqui, MSc (NICE, Manchester, England, United Kingdom); Judith Thornton, PhD (Presenter) (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Other evidence generation and synthesis
BACKGROUND (INTRODUCTION): The GRADE system and GRADE evidence profiles are becoming widely used for assessing the quality of evidence and to present the evidence in guidelines. However, the GRADE system and GRADE evidence profiles are only designed for intervention studies, but not for diagnostic accuracy or qualitative studies. Clinical guidelines often cover clinical areas that required evidence from different study designs. Consequently, inconsistency emerged within a guideline that used different methods to present evidence, for example, GRADE evidence profiles for intervention studies, and narrative summary for diagnostic accuracy and qualitative studies.

PURPOSE: To pilot different adaptations of GRADE evidence profiles to present evidence from diagnostic and qualitative studies, in order to maintain consistency within a guideline.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Adaptations of GRADE evidence profiles to present evidence from different study designs.
2. Consistency of presentation of evidence within a clinical guideline.

METHODS: There were four clinical questions in the motor neuron disease–noninvasive ventilation guideline that required quantitative (diagnostic accuracy and intervention studies) and qualitative evidence (patient/caretaker information and support needs). Different adaptations of GRADE evidence profiles were used to present diagnostic accuracy evidence (based on Schunemann et al 2008) and qualitative evidence (based on Miles & Huberman 1994) during the Guideline Development Group (GDG) meetings.

RESULTS: As well as the GRADE evidence profiles for intervention studies, the different adaptations of evidence profiles for diagnostic and qualitative studies were also well received by the GDG. This has enabled a consistent presentation of evidence throughout the whole guideline.

DISCUSSION (CONCLUSION): Although the criteria from GRADE are only for assessing evidence from intervention studies, the broader concept of the use of evidence profiles could be adapted to present other types of evidence, and hence to ensure the consistency of the presentation of evidence within a guideline.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Health care policy analyst/policymaker

S10– GRADE: Presentation of evidence profiles in clinical guidelines

Toni Py Tan, MSc (NICE, Manchester, England, United Kingdom); Faisal Siddiqui, MSc (Presenter) (NICE, Manchester, England, United Kingdom); Judith Thornton, PhD (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis

SECONDARY TRACK: Other evidence generation and synthesis

BACKGROUND (INTRODUCTION): The GRADE system is becoming widely used for assessing the quality of evidence and strength of recommendations in guidelines. The full GRADE evidence profiles of clinical study characteristics and summary of findings are comprehensive and detailed and may not be appropriate for all guidelines depending on the therapeutic area, outcomes assessed, and the design of studies. It is also necessary to consider ease of readability for the guideline developer and user of the final guideline. Consequently, different guidelines have adopted different formats to present GRADE evidence profiles.

PURPOSE: To evaluate the variations of GRADE evidence profiles presented in NICE clinical guidelines, as well as guidelines produced by other developers.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To evaluate the variations of GRADE evidence profiles presented in NICE clinical guidelines, as well as guidelines produced by other developers.
2. Indication of which approach of GRADE evidence profiles presents the required information in a readable and understandable format.

METHODS: A web-based search will be carried out to identify published guidelines (in English language) that have used GRADE from 2005 to 2010. A checklist will be used to evaluate the variations of GRADE evidence profiles, including:

- where the evidence profiles were presented in the guideline;
- formats of the evidence profiles in relation to study designs;
- data included in the evidence profiles;
- styles of the footnotes;
- others.

All data collected will be analyzed using simple descriptive statistics, tabulation, and narrative summary.

RESULTS: Preliminary results showed that 14/68 published NICE clinical guidelines (2005–2009) have adopted GRADE system but there was no standardization in how GRADE evidence profiles were utilized. Further detailed findings, including guidelines developed by other developers, will be reported in simple descriptive statistics, tabulation, and narrative summary.

DISCUSSION (CONCLUSION): Current variations of GRADE evidence profiles in published clinical guidelines will be discussed, including indication of which approach presents the required information in a readable and understandable format.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Health care policy analyst/policymaker

S11– Radiation oncology. Is it time for a clinical practice guideline? The case of PET-CT in treatment planning

Iñaki Gutiérrez-Ibarluzea, PhD (Presenter) (Osteba, Basque Office for HTA, Vitoria-Gasteiz, Araba/Basque Country, Spain); Eunate Arana-Arri, PhD (Osakidetza, Basque Health Service, Barakaldo, Araba/Basque Country, Spain);
Natalia Lekerika-Royo, MD (Osakidetza, Basque Health Service, Barakaldo, Araba/Basque Country, Spain); Pedro Bilbao Zulaika, PhD (Osakidetza, Basque Health Service, Barakaldo, Araba/Basque Country, Spain); Elsira Boveda, MD (Osakidetza, Basque Health Service, Barakaldo, Spain);
José López Torrecilla, PhD (Hospital la Fe, Valencia, Spain); José Mª Peña, PhD (Osakidetza, Basque Health Service, Barakaldo, Araba/Basque Country, Spain)

PRIMARY TRACK: Evidence generation and synthesis

SECONDARY TRACK: Other evidence generation and synthesis

BACKGROUND (INTRODUCTION): Big-ticket technologies have been introduced in the health-care systems and are assumed as treatments of choice, especially in cancer. In the case of radiation therapy, treatments have significantly changed in the last decades due to the inclusion of more sophisticated image technologies. New planning systems had allowed integration of PET and CT data. Nevertheless, it remains unresolved the effectiveness of the use of embedded image in treatment planning, and the existence of Clinical Practice Guidelines is scarce.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To analyze the role of PET-CT in planning radiotherapy treatments.
2. To map the existence of technical guidance for its use in hospitals that have implemented the technology in Spain.

METHODS: We performed a comprehensive review (overview) for use of PET-CT in planning radiotherapy treatments. The databases consulted were MEDLINE, EMBASE, LILACS, Cochrane, CRD, and NGC, and the websites of societies ACR, AERO, ASTRO, ESGO, ESMO, ESTRO, IARC, ISRO, and SFOR. The limits were: human subjects, 1995-2009 (April). The studies included were RCTs, meta-analysis and systematic reviews, and prospective observational studies which included adult patients who had undergone radiotherapy treatment planning with PET-CT. We sent a survey to those hospitals that reported the use of the technology in Spain.

RESULTS: Thirty-eight documents out of 510 met inclusion criteria. The largest number of documents related to head-neck (13 documents) and lung cancers (12 documents). The reported outcomes were mainly surrogate with short follow-up periods. The quality of the evidence was medium or low. Only two guides or standards included planning with PET-CT. No results on morbidity or mortality were conclusive. The questionnaire showed that although hospitals had implemented the

technique lacked a planning guide for the indication of PET-CT.

DISCUSSION (CONCLUSION): The present study showed that big-ticket technologies, although sophisticated, have a lack of clinical guidance. It is thus necessary to develop and implement evidence-based recommendations.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Consumers' and patients' representatives

S12– Rx for Change: Changing professional behavior–an updated overview of systematic reviews

Alain D. Mayhew, MSc (University of Ottawa, Ottawa, Ontario, Canada); Jeremy Grimshaw (Presenter) (CEP, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada); Julia Worswick, BA (University of Ottawa, Ottawa, Ontario, Canada)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Synthesizing evidence (e.g., meta-analysis, decision modeling)
BACKGROUND (INTRODUCTION): The Cochrane Effective Practice and Organization of Care group (EPOC) focuses on systematic reviews providing evidence for professional, organizational, financial, regulatory, and structural interventions that promote improvements in health-care delivery and care systems. Since 2007, EPOC has collaborated with the Canadian Agency for Drugs and Technologies in Health (CADTH) to summarize and publish reviews that enhance our understanding of the evidence-based effects of interventions to improve prescribing practices, drug use, and health-care delivery.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Increase familiarity with literature addressing changing professional behavior and delivery of care.
2. Understand a method of synthesizing systematic review literature.

METHODS: Systematic reviews published between 1966 and 2009 were identified from Medline, Embase, and the Cochrane Library. Two reviewers independently assessed the quality and abstracted data from medium- or high-quality reviews. Vote counting was used as a common metric for data synthesis. Interventions were classified as being effective if more than two thirds of the included studies demonstrated benefit. All identified reviews are available at www.rxforchange.ca.

RESULTS: Over 330 reviews have been identified; 203 have been included in analysis. Examples of professional interventions found to be generally effective include: printed educa-

tional materials, educational outreach visits, local opinion leaders, and audit and feedback. Thirteen high-quality reviews assessed multifaceted interventions. Eight review categories contain no reviews.

DISCUSSION (CONCLUSION): A number of interventions have been found to be generally effective for improving professional behavior. Efforts to conduct reviews to assess the effectiveness of intervention categories where data are unavailable should be encouraged.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Health care policy analyst/policymaker
8. Health insurance payers and purchasers
9. Medical providers and executives

S13– Validation of a reporting guideline for mixed treatment comparisons

Stefanie Reken, MS (Presenter) (National Institute for Health & Clinical Excellence, London, England, United Kingdom); Philip Alderson, MBChB (National Institute for Health & Clinical Excellence, Manchester, England, United Kingdom); David Wonderling, MSc (Royal College of Physicians, London, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Synthesizing evidence (e.g., meta-analysis, decision modeling)
BACKGROUND (INTRODUCTION): Considering all relevant treatment options when making a decision on health service provision is important. Meta-analysis of treatment networks is increasingly being used in medical research, especially when head-to-head trial data are not available. NICE has employed these methods to aid decision-making processes for its guidance. When informing guideline development, it is important to use a valid and consistent approach to reporting these new methods. To this end we developed and piloted a reporting guideline in form of a checklist which we now will test in a robust validation process.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify network meta-analysis (NMA) methods in the literature.
2. Assess the appropriateness of the reported NMA methods using dimensions covered by our checklist.
3. Learn how NMAs can benefit clinical guidelines.
4. Learn about validation techniques.

METHODS: A systematic search for papers was conducted. From this, we will select six papers employing a NMA methodology. A sample of twelve reviewers who had not been involved in drafting and piloting the reporting guideline will be

recruited. They will use the existing piloted checklist and will each review three selected papers. We will assess the inter-rater variability using standard methods (Cohen's Kappa K). If time permits we will also estimate the test-retest reliability.

RESULTS: This presentation will introduce the checklist and its dimensions. NMAs can be presented in a variety of ways. We present a selection of formats and how they relate to our checklist. This validation study will show if our checklist is robust and reliably covers the necessary dimensions.

DISCUSSION (CONCLUSION): The degree to which results between reviewers vary, if at all, will be investigated further. A critical discussion of the validation results will be presented. Further, we will give an outlook how we will complete the development of this checklist so that it becomes a valid and valuable tool for guideline developers internationally.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Health care policy analyst/policymaker

S14– Using the GRADE approach to develop diagnostic guidelines in allergic disease: The World Allergy Organization's Diagnosis and Rationale for Action against Cow Milk Allergy (DRACMA) Guidelines

Airton Tetelbom Stein, MD (Presenter) (Public Health of UFCSPA, Ulbra, Conceicao Hospital, Porto Alegre, RS, Brazil); Alessandro Fiocchi, MD (The Melloni University Hospital, Milan, Italy); Luigi Terracciano, MD (Pediatric Department, Macedonio Melloni Pediatric, Milan, Italy); Jan Brozek, MD (McMaster University, Hamilton, Ontario, Canada); Jonathan Hsu (McMaster University, Hamilton, Ontario, Canada); Holger Schunemann, PhD (McMaster University, Hamilton, Ontario, Canada); Julia Kreis, BA (Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland); Enrico Compalat (Allergy & Respiratory Disease Clinic, Genoa, Italy)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Accrediting guideline developers
BACKGROUND (INTRODUCTION): Cow milk allergy (CMA) has an incidence of 1.9% to 4.9% during infancy. The World Allergy Organization initiated the development of DRACMA guidelines to provide therapeutic and diagnostic recommendations for the management of this disease.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe a novel process of developing diagnostic guidelines with an international panel.
2. Assess the applicability of various diagnostic tests in the

diagnosis of IgE-mediated CMA in comparison with the reference test, an oral food challenge (OFC).
METHODS: A multidisciplinary guideline panel including 22 members followed the GRADE approach to formulate recommendations. The panel formulated specific questions about the use of skin prick test (SPT), measurement of milk-specific IgE, and allergen microarrays. Panel members rated the importance of patient consequences as having or not a CMA. A systematic review of studies which evaluated the diagnostic accuracy of these tests compared to an OFC was performed. Evidence summaries have shown patient consequences of using each of the tests with low, average, and high initial probability of CMA. Based on this information DRACMA guideline panel made several recommendations about using SPT and measuring milk-specific IgE in the diagnosis of CMA.
RESULTS: We identified 26 studies that assessed the accuracy of SPT and 25 studies that assessed the use of milk-specific IgE. Overall quality of evidence supporting the recommendations was low to very low. DRACMA panel made 13 recommendations to use or not to use SPT and/or milk-specific IgE in distinct clinical circumstances. Each recommendation was supplemented by a statement of values and preferences that the panel assumed making judgments about the balance between the desirable and undesirable consequences of using the tests.
DISCUSSION (CONCLUSION): The GRADE approach creates a link between surrogate outcomes of diagnostic accuracy and patient important outcomes required for decision making that is based on transparent judgments. Our approach provides a process that allows guideline panels to make their process transparent, a key feature of evidence-based guidelines.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S15– Adapting NICE guidance for a developing country: Pilot hypertension project with NICE International in Jordan

Rachel O Mahony, PhD (Presenter) (NCGC, Royal College of Physicians, London, England, United Kingdom); Lara Qatami, MBA (King Hussein Cancer Center, Amman, Jordan); Nour Obeidat, PhD (King Hussein Institute for Biotechnology & Cancer,

Amman, Jordan); Joanne Lord, PhD (Health Economics Research Group, Middlesex, England, United Kingdom); Kalipso Chalkidou, MD (NICE International, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Adapting guidelines and sharing work locally and internationally
BACKGROUND (INTRODUCTION): NICE International was set up by the UK's National Institute for Health and Clinical Excellence (NICE), to draw upon their experience and provide advice, technical assistance, and training to countries seeking to improve evidence-based health care provision. In 2008/9, NICE International, in conjunction with the Medicines Transparency Alliance (MeTA) and Jordanian stakeholders, set up a pilot project to build an evidence-based guideline for hypertension in Jordan. It has been specifically set up to draw upon NICE's experiences working with the NHS in the UK.
PURPOSE: To develop evidence-based guidance for the pharmacologic treatment of essential hypertension in primary care for Jordan, by adapting the NICE guideline on hypertension to the Jordanian setting.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand work streams of NICE International: helping develop clinical guidelines in developing countries (Jordan).
2. Understand how existing guidelines can be adapted to different countries' health care settings.
METHODS: Over a period of 6 months of planned activities and workshops, two teams of technical experts (NICE and Jordanian) and a Jordanian guideline development group (GDG) worked in collaboration to develop the guidance. The NICE guideline on pharmacological treatment of hypertension was updated with the most recent clinical evidence, and the economic model was adapted using Jordanian health-care data, costs, and quality-of-life estimates.
RESULTS: The clinical and health economic evidence was used by the GDG to formulate recommendations and develop a drug-treatment algorithm for managing hypertension in primary care in Jordan. A report was also developed outlining recommendations for system and structural improvements.
DISCUSSION (CONCLUSION): The development of an evidence-based treatment algorithm in Jordan was seen as a constructive development towards change in the Jordanian health-care system. Planning for the implementation and dissemination stages has now ensued. The success of the treatment algorithm will increase the weight of evidence-informed policymaking in Jordan, and should result in a change in clinical practice.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Medical providers and executives

S17– Conflicts of interest–What to do when things go wrong: A case study

Rosina M. Ullman, PhD (Presenter) (NCC Women's and Children's Health, Sutton, England, United Kingdom); Rupert Franklin, MA (NCC Women's and Children's Health, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Conflicts of interest in developing guidelines
BACKGROUND (INTRODUCTION): This case study describes development of a guideline where potential conflicts of interest may have acted to undermine guideline recommendations. Issues surrounding conflicts of interest that needed to be resolved surrounded links between some guideline group members and one pharmaceutical company who were the sole manufacturers of a drug with a UK license recommended by the guideline. The links between the guideline development group and the pharmaceutical company were also noted by two stakeholders during consultation on the first draft of the guideline.
LEARNING OBJECTIVES (TRAINING GOALS):
1. How to explain declarations of interest to guideline development group members in order to encourage full disclosure.
2. What to do when conflicts of interest arise, including when these arise late in the development process.
3. How to respond to stakeholders who question conflicts of interest among group members.
METHODS: Conflicts of interest were identified before, during, and at the end of the development phase of the guideline. The conflicts of interest identified were:
1. An external advisor who had links to the pharmaceutical company but who voted on recommendations.
2. A guideline development group member who worked for a charitable organization part-funded by the pharmaceutical company.
3. A guideline development group member who had received small financial incentives in the form of hospitality from the pharmaceutical company. This was not disclosed until after the development phase of the guideline.
Once identified, it was clear that steps needed to be taken to ensure the credibility of the guideline.
RESULTS: Measures taken to address these conflicts of interest will be presented, including changes made to the relevant guideline recommendation and responses to stakeholders. Lessons learnt and process changes made in light of these will also be discussed.
DISCUSSION (CONCLUSION): Transparency is key when addressing issues surrounding conflicts of interest. We have seen how mistakes can be made despite having robust processes in place. The important thing is what happens as a

result of those mistakes and steps taken to improve processes for the future.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Medical providers and executives
6. Allied health professionals
7. Consumers' and patients' representatives
8. Nurses

S18– The vexing problem of guidelines and conflict of interest: A potential solution

Holger J. Schunemann, MD (Presenter) (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Conflicts of interest in developing guidelines
BACKGROUND (INTRODUCTION): Issues of financial and intellectual conflict of interest in clinical practice guidelines have drawn increasing concern from scholars and government officials. Professional organizations have responded by developing more rigorous standards to regulate conflict of interest in guideline panel members. Nevertheless, tension remains between the competing goals of 1) optimizing guideline quality by utilizing the experience and insight of experts and 2) ensuring that financial and academic conflicts of interest do not distort the recommendations. In particular, academic conflicts of interest have been neglected in the guideline development process–mostly because it is challenging to deal with them.
LEARNING OBJECTIVES (TRAINING GOALS):

1. Group processes in guideline development.
2. Understand how to deal with competing interests in guideline development.

METHODS: We reviewed existing conflict of interest policies by other organizations and used interactive discussion with guideline panel members.
RESULTS: We developed a novel strategy to address the tension between guideline development and the involvement of conflicted experts (Guyatt et al, Ann Int Med, in press). Primary responsibility for each chapter rests with a methodologist without important conflicts of interest. A committee of academic physicians reviews a potential panel member's financial conflicts and decides if they are acceptable, unacceptable, or acceptable provided future industry involvement is restricted. Experts who are approved during this review but are judged to have important financial or intellectual conflict of interest can participate in collecting and interpreting evidence. Only panel members without important conflicts can, however, participate in the development of recommendations, a process from which conflicted participants are excluded.

DISCUSSION (CONCLUSION): These strategies may help guidelines benefit from expert input without conflicts of interest influencing recommendations.
TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker

S19– Gender analysis of clinical practice guidelines for depression from four European countries: Austria, Finland, Sweden, and the United Kingdom

Sanna Lönnfors, MSPH (Charité Universitätsmedizin Berlin, Berlin, Germany); Birgit Babitsch, DrPH (Berlin School of Public Health, Berlin, Germany); Susanne Weinbrenner, MD (Presenter) (German Agency for Quality in Medicine, Berlin, Germany)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Equity in guidelines
BACKGROUND (INTRODUCTION): Depression is one of the most common psychiatric disorders and leading causes of disability worldwide. There is evidence that women suffer from depression more often than men and have different symptoms and coping strategies. The reasons for the gender differences are not fully understood. This study was done as a Master's Thesis in Public Health. Its objective was to analyze the gender sensitivity of clinical practice guidelines for depression from Austria, Finland, Sweden, and the United Kingdom.
LEARNING OBJECTIVES (TRAINING GOALS):

1. Identify lacks of gender aspect in existing guidelines for depression.
2. Give recommendations for including gender aspect in guidelines for depression.

METHODS: Gender analysis was conducted using two approaches: 1) counting sex/gender-related words; 2) detailed analysis based on a literature review. Firstly, 10 gender-related words were listed in respective languages and searched for in the guidelines. The number of hits was compared with the total number of words in the guideline. Secondly, current literature on gender differences in depression was searched in PubMed and Embase databases and reviewed. Six key categories (epidemiology; symptoms; suicide; diagnosis, treatment and prevention; social factors; coping strategies) were recognized. Gender differences in each category found in literature were summarized and used as a template to search for these issues in the guidelines. A scoring system was created and applied.
RESULTS: Clear gender differences in depression exist. However, with few exemptions, most were not mentioned in the guidelines. The Finnish and British guidelines mentioned depression being more common in women. No guideline mentioned gender-specific symptoms. The Austrian guideline gave gender-specific suicide rates and the Finnish guideline listed

male sex as a suicide risk factor. The British guideline covered social factors well.

DISCUSSION (CONCLUSION): Current guidelines for depression are not very gender-sensitive and need to be updated. More research with high level of evidence is needed on gender differences in depression.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Medical educator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Medical providers and executives
9. Allied health professionals
10. Consumers' and patients' representatives
11. Nurses

S20– Experiences with the application of a tool to structure the process from conclusion to recommendation in a transparent way

Sonja Kersten (Presenter) (Association of Comprehensive Cancer Centres, Utrecht, Netherlands); Daphne Stemkens (Association of Comprehensive Cancer Centres, Utrecht, Netherlands); Boukje van Dijk (Association of Comprehensive Cancer Centres, Utrecht, Netherlands); Susanne Osanto (Leiden University Medical Center, Leiden, Netherlands); Marlies Jansen-Landheer (Association of Comprehensive Cancer Centres, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Grading
BACKGROUND (INTRODUCTION): The process from an evidence-based conclusion to the formulation of a recommendation is often not transparent. Recommendations are based on conclusions (evidence from literature) and 'other considerations' (patient preferences and organizational issues). It is often not clear which 'other considerations' have been taken into account and to what extent these have contributed to the recommendation. A recently developed tool was applied to judge 'other considerations' in a structured way and to transparently report how the recommendation was formulated. (Grant from ZonMw)

LEARNING OBJECTIVES (TRAINING GOALS):

1. To get an overview of 'other considerations' that play a role in the process of conclusion to recommendation.
2. To gain insight in the development of a tool to incorporate 'other considerations' in a structured and transparent way to formulate the recommendation.
3. To gain insight in the experiences with the tool to include 'other considerations' in a structured and transparent way to formulate the recommendation.

4. To learn how to apply this tool in practice during guideline development.

METHODS: The tool, consisting of a checklist of 'other considerations' and an instrument for grading recommendations, has been applied by the guideline working group drafting the revision of the evidence-based guideline on renal cell carcinoma. A literature search and synthesis of the evidence regarding 'other considerations' were carried out.

RESULTS: The experiences of the guideline working group and the methodologist with the applied tool, as well as the search results and synthesis of the evidence on the 'other considerations,' were collected and evaluated. By using the tool to incorporate these considerations, it was transparent as to which were included in and how this affected the final recommendation. The revised guideline will be distributed to stakeholders to gain information on their perception of the process and results.

DISCUSSION (CONCLUSION): Based on the experiences and commentaries of the guideline working group, methodologists, stakeholders, and users of the guideline, suggestions for improvement of the tool were extracted. After applying relevant changes, the tool will be implemented in oncologic guidelines within the Netherlands. Other organizations are invited to use this tool, which may lead to more structured and transparent guideline development.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Medical providers and executives
9. Allied health professionals
10. Consumers' and patients' representatives
11. Nurses

S21– Implementing GRADE in an established national guideline program

Robin T. Harbour, BSc (Presenter) (Scottish Intercollegiate Guidelines network, Glasgow, Scotland, United Kingdom); Jennifer Layden, MSc (Scottish Intercollegiate Guidelines network, Glasgow, Scotland, United Kingdom); Alex Sanchez-Vivar, PhD (Health Protection Scotland, Glasgow, Scotland, United Kingdom); Heather Murdoch, PhD (Health Protection Scotland, Glasgow, Scotland, United Kingdom); Christopher Redman, PhD (Health Protection Scotland, Glasgow, Scotland, United Kingdom); Juliet Brown, MA (Scottish Intercollegiate Guidelines network, Glasgow, Scotland, United Kingdom)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Grading

BACKGROUND (INTRODUCTION): At the 2009 conference it was reported that the Scottish Intercollegiate Guidelines Network is to adopt the GRADE approach to developing guideline recommendations. The progress that has been made since the decision was made to proceed is reported, and lessons learned so far are identified.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Highlight the key areas where existing methodology has to adapt to GRADE.
2. Identify the main stakeholder groups that need to be involved in major methodological changes.
3. Understand how implementing grading changes is as much about change management as methodology.
4. Consider ways of preparing guideline users for a major change in guideline presentation.

METHODS: The approach taken to overcoming a number of methodological and organizational barriers is described. The new methodology has been integrated into the existing one through a process of iterative discussions, and new tools developed as necessary. A system of progressive training for guideline development group members has been introduced to ensure full understanding and uptake of the new system.

RESULTS: The first groups to use the new approach started work in spring 2010, and will not complete it until 2011 at the earliest. Progress with involving staff and GDG members will be described. Steps taken to start preparing users for changes in the presentation of guideline recommendations and to explain the implications in terms of reliability of evidence and guidelines will be outlined.

DISCUSSION (CONCLUSION): Changing the grading system involves a complete change of culture for an established organization such as SIGN. GRADE is a difficult system to explain in the abstract. Getting existing staff to accept the need for change and the potential benefits has proved challenging, but is an essential first step in getting the changes embedded in the guideline development process. Many of the lessons learned during this work will be applicable to guideline developers elsewhere in the world.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Consumers' and patients' representatives

S22– Using and adapting GRADE methodology in an area of low-quality evidence: An example from a national guideline on ablative therapies for the treatment of Barrett's esophagus

Tarang Sharma, MPH (Presenter) (National Institute for Health and Clinical Excelle, Manchester, England, United Kingdom); Jonathan Nyong, MPH (National Institute for Health and Clinical Excelle, Manchester, England, United Kingdom); Elizabeth J. Shaw (National Institute for Health and Clinical Excelle, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Grading

BACKGROUND (INTRODUCTION): As more health technologies come into the market, there is often a lag before good-quality RCTs are conducted to access their efficacy. The standard GRADE pro software does not easily support evidence assessment of single-arm studies, which may form the evidence base for such technologies. As evidence-based guidelines should be based on 'best available' evidence, case series and registry data may be considered during the decision-making process, if that is the extent of the evidence base. This study describes how adapting GRADE to include evidence assessment of case series and registry data can be used to assist in the development of recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Adapting GRADE to include evidence from case series and registry data.
2. Understanding how a wider evidence base can be used to enhance discussion during the guideline development process.

METHODS: The GRADE table was modified to allow for evidence assessment from case series and registry data to be included appropriately alongside RCT and observational studies for the same outcomes. Informal interviews with a few representatives from the guideline development group (GDG) were undertaken to determine the usefulness of the same.

RESULTS: Such adaptation allowed the guideline development group to consider the 'best available' evidence during the development process. This guideline is currently in development, but the preliminary results show that adapting GRADE allows for consideration of the wider evidence base for clinical guidelines where the majority of the evidence is of very low quality.

DISCUSSION (CONCLUSION): Recommendations in clinical guidelines are often made in the absence of high-quality RCTs as they may often not be ethical or available. GRADE can be adapted to include different types of published evidence, allowing consideration of the wider evidence base. We will present the modified GRADE and discuss how it was used by the GDG.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer

S23– An experience using AGREE

Mohd Aminuddin Mohd.Yusof, MPH (Presenter) (Ministry of Health Malaysia, Putrajaya, Malaysia); Rugayah Bakri, MPH (Ministry of Health Malaysia, Putrajaya, Malaysia); Roza Sarimin, MPH (Ministry of Health Malaysia, Putrajaya, Malaysia);

Mariammah Krishnasamy, BSc (Ministry of Health Malaysia, Putrajaya, Malaysia); Loong Ah Moi (Ministry of Health Malaysia, Putrajaya, Malaysia); Sin Lian Thye (Ministry of Health Malaysia, Putrajaya, Malaysia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): A newly developed evidence-based clinical practice guidelines (CPG) in Malaysia has to be submitted to the Technical Advisory Committee CPG (TAC CPG) and Health Technology Assessment-CPG Council for approval. Since 2007, CPGs are evaluated using Appraisal of guidelines, research and evaluation (AGREE) tool.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To describe the AGREE evaluation of CPGs by TAC CPG according to years and groups of CPG.
2. To improve quality of evidence-based guidelines produced locally.
METHODS: The study aims to describe the AGREE evaluation of CPGs by TAC CPG according to years and groups of CPG. A total of 20 new CPGs from 2007 to 2009 were evaluated by 14 members of the committee. Nine CPGs were developed internally through coordination by Malaysian Health Technology Assessment Section while another 11 were developed externally by professional bodies.
RESULTS: Scores between the six domains varied markedly. Domains on Stakeholder involvement and Applicability had the lowest mean of score of 45.2 and 32.4 respectively. Discussion was done with TAC members to improve in the evaluation. From 2007 till 2009, there was an increasing trend in the scores of almost all domains. However, only Domain on Editorial independence was significant ($p < 0.05$). Comparing scores between the two groups, the internally developed CPGs received higher scores in almost all domains, namely Stakeholder involvement, Rigor of development, Clarity and presentation, and Editorial independence than externally developed CPGs. However, these differences were found to be not significant statistically.
DISCUSSION (CONCLUSION): The results showed that the standard of developed CPGs improved over the years in accordance to AGREE. Apart from that, AGREE was found to be a good tool to evaluate CPG objectively and can be used to improve the quality of Malaysian evidence-based CPGs.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Medical providers and executives
10. Allied health professionals
11. Consumers' and patients' representatives
12. Nurses

S24– Compatibility of AGREE and clinical experts review in guideline appraisal

Ken N. Kuo, MD (Presenter) (National Health Research Institutes, Taiwan, Miaoli County, Taiwan ROC); Heng-Lien Lo, MA (National Health Research Institutes, Taiwan, Miaoli County, Taiwan ROC); Chiehfeng Chen, MD (Taipei Medical University-Wan Fang Hospital, Taipei, Taiwan ROC)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): AGREE is the most accepted instrument in appraising the methodological quality of clinical practice guideline (CPG). Six domains measure different aspects of CPG quality and may differ from clinical expert perspective.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To compare the result and compatibility of CPG appraisal between AGREE measures and clinical expert perspective.
2. To identify the inconsistent criteria in order to improve the consensus between AGREE reviewers and clinical specialty.
METHODS: We collected data from independent evaluation by AGREE and related clinical expert on 17 CPGs developed from 2007 to 2008. For "strongly recommended" rating, we gave a score 3, "recommended with alteration" 2, and "not recommended" 1. The differences between AGREE and clinical expert's scores were expressed as sensitivity, specificity, and positive and negative predict value in relative intra- and inter-AGREE domains.
RESULTS: Nine out of 17 CPGs showed similar recommendation between AGREE and clinical expert ratings. Four domains of AGREE were particularly sensitive to clinical expert perspective, including stakeholder involvement (sensitivity 0.89, specificity 0.75, PPV 0.80, NPV 0.86), rigor of development (0.89, 1.0, 1.0, 0.89), clarity and presentation (0.78, 0.88, 0.88, 0.78), and editorial independence (0.78, 1.0, 1.0, 0.80). The result is the same if we calculated those four sensitive AGREE domains and omitting other two. In consistency of items within each domain, the majority of items under "rigor of development," "clarity and presentation," and "editorial independence" showed relative high coherence. However, the consistency varied within 'stakeholder involvement' domain.
DISCUSSION (CONCLUSION): Our finding points out the compatibility between AGREE and clinical expert appraisal in CPG quality, and the predictability between the two. It is crucial to improve reviewer's training for enhancing inconsistent domains of AGREE.
TARGET AUDIENCE(S):
1. Guideline developer

S25– Ethical aspects in CPGs: Explicit or implicit

Radim Licenik, MD (Presenter) (University Hospital of North Staffordshire, Stoke on Trent, England, United Kingdom); Arnolda P. Nauta, PhD (The Netherlands Society of Occupational Medicine, Delft, Netherlands); Martin Faix (Centre for CPGs, Faculty of Law Palacky University, Olomouc, Czech Republic); Katerina Ivanova, PhD (Dep Soc Med and Health Pol, Palacky University, Olomouc, Czech Republic)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): Clinical practice guidelines as "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific circumstances" should be developed using different aspects, including ethical aspects. Although ethical principles are crucial to health care, there is a lack of evidence about their use in the process of CPGs development, implementation, and evaluation as well as in their use. In CPGs ethical theories, from both consequentialism and deontology, should be used. Ethical aspects in guidelines should be brought to the attention of CPGs developers, users, and other stakeholders. The questions we want to answer are: Are ethical principles visible in CPGs, explicitly or implicitly? Where can ethical principles be made visible in CPG?
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand that ethical values and different perspectives exist in guidelines, explicit and implicit.
2. Understand how to assess ethical principles in GPGs by a checklist.
3. Become aware of possibilities to make ethics integral part of guideline development.
METHODS:
1. A narrative review focused on the ethical aspects of CPGs.
2. Development of a checklist for ethical assessment of CPGs using the main ethical principles in medical ethical literature: beneficence, nonmaleficence, justice, autonomy, and honesty.
3. Assessment of ethical principles in cardiologic CPGs by different users and stakeholders.
4. Consensus conference using a modified Delphi method.
5. Evaluation of the checklist.
RESULTS: We will present the results at the conference. The checklist will be available for use by other people. We will give recommendations for CPG developers, stakeholders, and end-users.
DISCUSSION (CONCLUSION): Educational sessions on ethics in CPGs should become an integral part of the educational program focused on CPGs for undergraduate medical students and other health-care professionals.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Medical providers and executives
7. Allied health professionals
8. Consumers' and patients' representatives
9. Nurses

S26– How to develop new methods for systematic evaluation of internal validity of CPG recommendations

Michaela Eikermann, MD (Presenter) (IQWiG, Cologne, Germany); Nicole Holzmann (IQWiG, Cologne, Germany); Alric Rüther, MD (IQWiG, Cologne, Germany)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): There have been numerous initiatives to improve the quality of clinical practice guidelines (CPGs). Different instruments have evolved in the fields of CPG development and evaluation.

However, up till now, no instrument exists for the systematic evaluation of internal validity of CPG recommendations.

The purpose was to develop transparent, comprehensive methods for evaluating the internal validity of CPG recommendations while also considering existing methods.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Compare different instrument for CPG development and CPG appraisal with the focus on the internal validity of recommendations.
2. Follow the development of new methods for the appraisal of internal validity of recommendations as a logical conclusion in the context of quality improvement of CPG.
METHODS: An analysis of three internationally established instruments for CPG development and evaluation (GRADE, ADAPTE, AGREE) was carried out. The instruments were compared using predefined items. The aim and purpose of the instruments and the definitions and dimensions of "CPG quality" were recorded. Concrete test steps and evaluation criteria to check the evidence base of a CPG recommendation were analyzed. Completeness, depth of detail, and documentation requirements of the instruments, and transparency and comprehensibility of the evaluation criteria, were some of the criteria that were compared and contrasted. The analysis served as the basis for developing a method for evaluating internal validity.
RESULTS: GRADE, ADAPTE, and AGREE enable a structured development and evaluation of CPGs. Test steps and evaluation criteria described in the instruments represent numerous elements of internal validity of CPG recommendations. However, important aspects such as questions concerning the inclusion of unpublished data when generating recommendations are missing.

The instruments often lack concrete operationalizations and thus transparent, comprehensible, and reproducible justification for the evaluation carried out.

From the analysis of existing instruments, numerous starting points could be identified, completed, and further developed in a method for evaluating internal validity.

DISCUSSION (CONCLUSION): The development of new appraisal methods regarding the internal validity of recommendations is a logical conclusion concerning the improvement of guideline quality.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S27– A model for an international collaboration across organizations for developing clinical practice guidelines

Holger J. Schunemann, MD (Presenter) (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development groups/panels/committees
BACKGROUND (INTRODUCTION): In theory, evidence-based clinical practice guidelines based on a systematic approach to evaluating and summarizing evidence and developing recommendations represent the ideal way of supporting prevention and management of chronic diseases such as chronic obstructive pulmonary disease (COPD). Despite the resource and time requirement, there is a vast duplication of efforts that could be harmonized while maintaining the sense of ownership and contribution of organizations with interest in or mandates for guideline development. Streamlining the activities and sharing resources and approaches of organizations could lead to an advanced model of international collaboration (Schünemann et al, Lancet, 2009).

LEARNING OBJECTIVES (TRAINING GOALS):
1. International collaboration.
2. Evidence sharing.
3. Group processes.

METHODS: Over the past three years, we developed a model of an international collaboration of major stakeholders (including major respiratory professional societies, GIN, NICE, Cochrane Collaboration, and many others) in respiratory disease using Chronic Obstructive Pulmonary Disease (COPD) as an example to overcome challenges and answer these questions. We used literature reviews and held workshops and meetings, scientific presentations, and teleconferences to develop this approach.

RESULTS: We were able to establish an international model for guideline development by many organizations. We will preliminary results from a research project that tackles key issues in international guideline development and implementation pursuing the following aims: 1) to establish an approach for knowledge translation in international guideline development; 2) to develop a framework for a standardized database of existing evidence and gaps in evidence related to COPD and its related comorbidities; 3) to evaluate the factors that facilitate adaptation and implementation of guidelines on an international level by organizations; 4) to evaluate factors that facilitate informing health policy makers on an international level.

DISCUSSION (CONCLUSION): This model will inform international collaboration in guideline development.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker

S28– An integrated approach to developing health care guidelines

Kathy Cummings, MA (Presenter) (Institute for Clinical Systems Improvement, Bloomington, Minnesota); Cally Vinz, RN (Institute for Clinical Systems Improvement, Bloomington, Minnesota); Claire Neely, MD (Institute for Clinical Systems Improvement, Bloomington, Minnesota); Joann Foreman, RN (Institute for Clinical Systems Improvement, Bloomington, Minnesota)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development groups/panels/committees
BACKGROUND (INTRODUCTION): Since 1993, the Institute for Clinical Systems Improvement (ICSI) has developed more than 60 evidence-based health care guidelines that support best practices for the prevention, diagnosis, treatment or management of a given symptom, disease, or condition for patients. The rigor of ICSI's development and review process has helped make ICSI guidelines trusted resources in how clinicians practice medicine internationally. In this presentation we will highlight the process, as well as address the challenges of providing relevant guidelines going forward in light of emerging care delivery models and technological advances.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods to reduce or mitigate the effects of bias on guideline development.

2. Determine how to select topics for guideline development.
3. Describe processes for developing and revising guidelines based on current evidence and for gaining consensus by developers.
4. Describe key challenges facing the guideline developer.

METHODS: In this session, we will describe the methods the Institute for Clinical Systems Improvement utilizes to develop and revise guidelines. We will discuss how we garner peer review of the documents prior to revision, the review of evidence, the group process utilized to review the document and the peer review completed prior to publication. During this session we will also present methods to reduce bias and obtain consensus. We will review the process used to develop aims and measures for improvement that organizations use in their quality improvement activities. In addition we will discuss some of the current and future challenges of developing and disseminating guidelines to practicing providers.

RESULTS: None provided.

DISCUSSION (CONCLUSION): None provided.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health insurance payers and purchasers
6. Medical providers and executives
7. Allied health professionals
8. Nurses

S29– Attitudes of guideline development groups to use of GRADE in evidence evaluation and development of recommendations

Judith Thornton, PhD (Presenter) (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Tarang Sharma (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Victoria Kelly (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Toni Tan (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Jonathan Nyong (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Faisal Siddiqui (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom); Lynda Ayiku (National Institute Health and Clinical Excellence, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development groups/panels/committees

BACKGROUND (INTRODUCTION): The GRADE system is becoming widely used for assessing the quality of evidence in guidelines. Although we have anecdotal reports from members of guideline development groups (GDGs) involved in NICE guidelines, we have not formally assessed their opinions and whether they find the GRADE approach beneficial. A literature search found no relevant information from other guideline developers. Purpose: to examine whether GDG members find GRADE useful when reviewing evidence and formulating recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Determine opinions of members of guideline development groups to the GRADE approach.
2. Identify the best method of presenting GRADE methodology to guideline development groups.

METHODS: A short questionnaire was sent to all GDG members before the start of evidence assessment with GRADE asking about general knowledge/use of evidence assessment and GRADE, any preconceptions about GRADE, and whether they thought GRADE would help or hinder evidence assessment. A follow-up questionnaire was administered after completion of the evidence review with questions about whether GRADE helped or hindered evidence assessment, the specific benefits and problems of GRADE, and how GRADE methodology is best communicated to the GDG members.

RESULTS: Four short clinical guidelines were identified for the pilot study. All 9 GDG members of the first guideline were sent the pre-review questionnaire: All replied (2 patient/caretakers, 8 health-care professionals), response rate 100%. Two members had used GRADE previously when developing a NICE guideline and considered it helpful for consistency but had concerns where few formal studies are available for well-established treatments. Three physicians were aware of GRADE through the medical literature or implementation of existing guidelines.

DISCUSSION (CONCLUSION): Follow-up questionnaires will be sent at the end of evidence review. The project will then be expanded across the full clinical guideline program. From the results, we hope to determine how we can further support the GDGs when introducing GRADE methodology.

TARGET AUDIENCE(S):

1. Guideline developer

S30– Adapting the ADAPTE Framework

Christa Harstall, MHSA (Presenter) (Institute of Health Economics, Edmonton, Alberta, Canada); Paul Taenzer, PhD (Calgary Pain Program, Calgary, Alberta, Canada); Carmen Moga, MD (Institute of Health Economics, Edmonton, Alberta, Canada); Donna Angus, MHSA (Alberta Innovates - Health Solutions, Edmonton, Alberta, Canada); Ann Scott, PhD (Edmonton, Alberta, Canada)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development methods

BACKGROUND (INTRODUCTION): The ADAPTE schema outlines a systematic approach for adapting and contextualizing guidelines. The Alberta Ambassador Program in-

dependently developed a similar framework. We explored the key differences between these two frameworks.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify possible improvements to the ADAPTE process.
2. Examine a case study on the practical application of guideline adaptation.

METHODS: The Ambassador Program formed a multidisciplinary partnership of clinicians, health technology assessment researchers, and other key stakeholders to construct an evidence-based, provincial guideline on low back pain management for use by all professionals in community practice.

RESULTS: The Ambassador Program differed from the ADAPTE framework as follows.
- Selecting participants. A novel process was used to recruit guideline development group (GDG) members.
- Committee structures/responsibilities. A more complex committee structure, with altered responsibilities, was used to reduce the GDG workload and improve stakeholder engagement.
- Using AGREE. The instrument was modified to reduce the ambiguity and subjectivity of item scoring.
- Summarizing guideline content. Standardized evidence inventory tables were created to highlight convergent and divergent recommendations and summarize the type and quantity of supporting evidence for each seed guideline recommendation.
- Evaluating underlying evidence. A systematic process was developed to review additional research evidence when necessary.
- Defining recommendations. A process was developed to ensure a standardized definition of the final guideline recommendations (e.g., what constituted a "do" recommendation) and transparently and systematically display the source of final recommendations.
- Piloting the guideline. A variety of methods were used, including a patient focus group and face-to-face meetings with professional associations.

DISCUSSION (CONCLUSION): The main steps and sequence of the adaptation process were similar between the two frameworks, although the Ambassador Program incorporated more involved strategies to overcome unforeseen difficulties at key points in the process. These "adaptations" of the ADAPTE framework augmented rather than attenuated the process.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

S31– Balance@Work: A combined guideline and research project on prevention of weight gain among employees

Carel Hulshof, PhD (Presenter) (Centre of Excellence, NVAB, Utrecht, Netherlands); Lisanne Verweij, MSc (EMGO Institute for Health and Care Research, VUmc, Amsterdam, Netherlands); Karin Proper, PhD (EMGO Institute for Health and Care Research, VUmc, Amsterdam, Netherlands); Andre Weel, PhD (Centre of Excellence, NVAB, Utrecht, Netherlands); Willem van Mechelen, PhD (EMGO Institute for Health and Care Research, Amsterdam, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Occupational physicians (OPs) may be involved in health promotion activities. Due to a lack of knowledge and evidence- and practice-based methods, these activities are hardly being implemented by OPs to date. The aim of the Balance@Work project is to develop, evaluate, and implement a guideline on prevention of weight gain among employees by combining a guideline development and research approach.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify alternative method for guideline development in occupational and public health domain.
2. Assess the use of an intervention mapping protocol as an innovative element in guideline development.
3. Assess the use of an RCT to evaluate the cost-effectiveness of a draft guideline in an extended guideline project.

METHODS: Following the process of the Netherlands Society of Occupational Medicine (NVAB) and using an Intervention Mapping (IM) protocol, a draft guideline was developed based on literature, interviews with employers, focus groups with employees, and input from a guideline development group of OPs and lifestyle experts. The draft guideline is evaluated in a randomized controlled trial. OPs in the intervention group apply the draft guideline to eligible workers during 6 months. OPs in the control group provide care as usual. Measurements at baseline and 6, 12, and 18 months thereafter include waist circumference, daily physical activity and dietary behavior and, additionally, productivity, absenteeism, and cost-effectiveness.

RESULTS: The developed draft guideline gives recommendations for OPs how to advise employers to promote employees' physical activity and diet, and counsel employees to adopt a physically active and healthy diet behavior. The effectiveness is currently being evaluated in a RCT among 20 OPs, including 400 workers. If proven effective, this guideline will be implemented by the NVAB.

DISCUSSION (CONCLUSION): Combining a guideline development project with an RCT leads to a substantial extension of the development period. In complex or relatively new topics in the field, this, however, may be a valuable approach. The time lost in the development process may be regained because of the gathered experience with implementation of the draft guideline.

TARGET AUDIENCE(S):
1. Occupational and public health physicians
2. Clinical researcher
3. Guideline developer
4. Guideline implementer

5. Health care policy analyst/policymaker
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Allied health professionals
9. Consumers' and patients' representatives

S32– Comparison of the quality and amount of guidelines identified by conventional database searches vs. extended systematic search methods

Daniel Anzola, MD (Presenter) (Bogotá, Colombia); Felipe Zamora Rangel, MD (Colombian National Cancer Institute, Bogotá, Colombia); Monica Patricia Ballesteros, MD (Colombian National Cancer Institute, Bogotá, Colombia); Giancarlo Buitrago Gutierrez, MD (Colombian National Cancer Institute, Bogotá, Colombia); Licet Villamizar, MSc (Colombian National Cancer Institute, Bogotá, Cundinamarca, Colombia); Ricardo Sanchez, MD (Colombian National Cancer Institute, Bogotá, Colombia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Conducting extended systematic searches (hand-searching, reference lists, personal communication, and searching of specialized databases and registries) has proved a good way to improve systematic reviews of randomized clinical trials, but in the context of clinical practice guideline (CPG) searches there is insufficient empirical evidence of this difference in the quality and amount of the identified CPGs. Information about this difference may be useful for guideline developing groups.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Evaluate the difference in the quality of the guidelines identified by conventional database searches vs. extended systematic search methods.
2. Evaluate the amount of the guidelines identified by conventional database searches vs. extended systematic search methods.
METHODS: We conducted two independent systematic searches on the same topic (uterine cervical neoplasm treatment), one using only databases (MEDLINE® and EMBASE® via OvidSP®, and LILACS via Bireme) and one extended (hand-searching, guideline developers and aggregator sites, personal communication, and searching of specialized databases) and compared the quality (using the DELBI® instrument) and amount of the identified CPGs.
RESULTS: In the systematic search conducted only in databases we found 13 CPGs, nine in MEDLINE® and nine in EMBASE® with five repeated entries between these databases, and no CPGs identified in LILACS. With the hand-searching, guideline developers and aggregators search, and through personal communication we identified 148 initial entries that were further reduced to seven entries after the initial revision of the documents. Of these seven documents only one was concurrently identified in the databases search results. The

identified CPGs were then assessed with the DELBI® instrument to qualify their methodological strength.
DISCUSSION (CONCLUSION): Our results show that the extended search provides as many results as the database search does, with little overlapping, having comparable quality assessments when evaluated with the DELBI® instrument.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S33– Development and institutionalization of Disease Management Guidelines in Germany

Thomas Langer (Presenter) (Agenqy for Quality in Medicine (AQuMed), Berlin, Germany); Susanne Weinbrenner (Agenqy for Quality in Medicine (AQuMed), Berlin, Germany); Ina Kopp (Association of the Scientific Medical Societies, Marburg, Germany); Guenter Ollenschlaeger (Association of the Scientific Medical Societies, Berlin, Germany)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): In Germany, a national disease management (DM) program was established in 2000 to link prevention, acute care, rehabilitation, and chronic care for high-priority health care topics. Against this background AQuMed developed a strategy to institutionalize a "National DM CPG Programme" in 2002. Key goals: 1) Physicians key organizations will consent organization of a guideline program based on rational methods within 1 year; 2) guideline development for 4 topics to start within 2 years involving relevant stakeholders; 3) consumer participation to start within 3 years; 4) 4 Evidence-Based CPGs to be disseminated within 4 years; 5) evaluation of 1 implementation to be started within 5 years.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how a nationwide guideline program can be established.
2. Experience opportunities to implement CPGs in developed countries.
METHODS: 1) Adaptation and dissemination of international methodologies; 2) business plan for a national guideline program; 3) lobbying within stakeholders of physicians' scientific

and political organizations; 4) establishment of a national guideline bureau; 5) guideline adoption; 6) multidimensional dissemination; 7) structured implementation on regional level; 8) controlled evaluation study.

RESULTS: A national guideline bureau was established by the German Medical Association in 2002. In 2003 the Association of the Scientific Medical Societies (n = 153) and Association of Statutory Health Insurance Physicians (n = 120,500) joined the program and consented on a guideline methodology. By now guidelines for asthma, COPD, CHD, diabetes, CHF, depression, and low back pain were developed and disseminated. Consumer involvement in development and implementation of DM CPGs started in 2005. First-generation DM CPGs are in the process (diabetes, CHD) or already finished updating (asthma).

DISCUSSION (CONCLUSION): A countrywide disease management guideline program was established within 4 years. Until 2011, 12 DM CPGs will be finalized and implementation into quality management systems and regional care settings will be established.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Allied health professionals
9. Consumers' and patients' representatives

S34– Development of revised recommendations for HIV counseling, testing, and linkage in non-health-care settings

Rebecca L. Morgan, MPH (Presenter) (Centers for Disease Control and Prevention, Atlanta, Georgia); Amrita Patel, MPH (Centers for Disease Control and Prevention, Atlanta, Georgia);
Mary Lou Lindegren, MD (Centers for Disease Control and Prevention, Atlanta, Georgia);
Jeff Bosshart, MSW (Centers for Disease Control and Prevention, Atlanta, Georgia); Cindy Lyles, PhD (Centers for Disease Control and Prevention, Atlanta, Georgia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): The Centers for Disease Control and Prevention (CDC) is updating the 2001 Revised Guidelines for HIV Counseling, Testing, and Referral to address programs in non-health-care settings. These recommendations highlight procedures that programs should follow for finding HIV-infected persons and conducting primary prevention for persons at high risk for HIV.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe the methodology used to create public health recommendations, when the evidence for the reviews is limited.
2. Develop a strategy for continued solicitation of end-user and stakeholder involvement in the development of the recommendations.

METHODS: CDC's Revised Recommendations for HIV Counseling, Testing, and Linkage in Non-Health-care Settings use an evidence-based approach supplementing advances in the science published in peer-reviewed journals with observations from the field and expert opinion. Initiated in 2007, comprehensive systematic reviews were conducted on four topics: targeting and recruitment; counseling; testing; and linkage and referral. Where evidence was limited, expert opinion was sought from subject matter experts including: federal employees; academicians; national partner organizations; and field staff from state and local health departments, community-based organizations, and prevention training centers. A two-day consultation was held with diverse stakeholders to review synthesized evidence from systematic reviews. End-user and partner input was solicited through a series of teleconferences and listening sessions at national conferences.

RESULTS: Recommendations were developed based on consultation outcomes, continued solicitation from stakeholders, and updates in the literature based on new evidence. An implementation plan was developed to assist in the acceptability of these recommendations among end-users. Continued solicitation with end-users and stakeholders increases transparency throughout the development process.

DISCUSSION (CONCLUSION): A second consultation will be held to assess the quality of evidence and strength of recommendations in the draft document before vetting a draft through a peer review and public comment process. Protocols are in development to standardize the recommendation development process.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer

S35– Elaboration of a topic prioritization instrument for the development of Clinical Practice Guidelines (CPGs) in Colombia

Giancarlo Buitrago, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Ricardo Sanchez, MSc (Presenter) (Instituto Nacional de Cancerologia - UNAL, Bogotá, Colombia); Felipe Zamora Rangel, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Licet Villamizar, MSc (Instituto Nacional de Cancerologia, Bogotá, Cundinamarca, Colombia);
Daniel Anzola, MD (Instituto Nacional de Cancerologia, Bogotá, Colombia);
Monica Patricia Ballesteros, MSc (Instituto Nacional de Cancerologia, Bogotá, Colombia)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development methods

BACKGROUND (INTRODUCTION): It is a core necessity for CPG developers to have a clear and objective system for the prioritization of topics to be covered in the CPGs. Our objective was to develop an instrument to prioritize CPG topics in Colombia

LEARNING OBJECTIVES (TRAINING GOALS):

1. Present a new instrument developed to prioritize CPG topics.
2. Describe how this new instrument facilitates and simplifies the topic selection process.

METHODS: We conducted an extended systematic search of the medical literature designed to identify instruments and recommendations used in the prioritization of CPG topics. The dominions to be evaluated in the prioritization process were identified by a nonformal consensus. These dominions were analyzed for each proposed topic by the topic proposing groups. With the results of this activity each dominion was pondered by a second nonformal consensus, and the objective qualification strategy was defined. Two topics were selected with this strategy for the development of CPGs at the Colombian National Cancer Institute (Instituto Nacional de Cancerología – INC).

RESULTS: The final instrument comprised the evaluation of five dominions. The first dominion had to be fulfilled to continue the evaluation process (development of the CPG – responsible leader and implementation feasibility). The remaining dominions were pondered in a differential way: 1) resources (human and economic) (30%); 2) disease burden (incidence and prevalence, burden on the health-care system, and socioeconomic effects) (30%); 3) current clinical standard (variations in clinical practice) (30%); 4) available evidence (evidence quality and available guidelines) (10%). The topics of the guidelines developed in 2009 at the INC were defined with this instrument.

DISCUSSION (CONCLUSION): The topic selection for CPGs was greatly facilitated with the use of this instrument in our institution.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S36– Experiences presenting GRADE to the Guideline Development Group on the NICE Lower Urinary Tract Symptoms (LUTS) Guideline

Clare N. Jones, MS (Presenter) (National Clinical Guideline Centre, London, England, United Kingdom); Lee-Yee Chong, PhD (London, England, United Kingdom); Elisabetta Fenu, MS (London, England, United Kingdom); Jennifer Hill, PhD (London, England, United Kingdom); Kate Homer (London, England, United Kingdom)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development methods

BACKGROUND (INTRODUCTION): Lower Urinary Tract Symptoms (LUTS) in men is one of the first official clinical guidelines developed by NICE to pilot using elements of GRADE. NICE had previously used the SIGN system of assessing the quality of evidence and the guideline development groups (GDG) were less familiar with this new approach.

PURPOSE: To discuss the experiences and challenges of presenting this new method of evaluating evidence to the LUTS GDG.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Identify and assess different methods of presenting GRADE to the guideline group.
2. Understand the importance of a close collaboration between the technical team and guideline group.

METHODS: Results of systematic reviews were presented to the GDG using a modified GRADE approach to develop recommendations for the guideline. We trialed a combination of different methods of presenting these results with GRADE to determine the best approach for our GDG made up of clinicians and patient representatives.

RESULTS: We found the most accepted approach to presenting GRADE was to include extensive details of the criteria (study quality, imprecision, inconsistency, and indirectness) considered when rating outcomes. Techniques we used included presenting study limitations using a traffic light system from Review Manager 5.0 to visually highlight the risks of bias for each study. Confidence intervals, minimal important differences, and optimal information size values were presented in a decision table to determine whether outcomes were imprecise. GRADE's definitions of quality were also provided to the GDG to illustrate the difference between the GRADE and SIGN systems. We adapted the way we presented the results to ensure that the methods used to assess evidence quality were transparent and supported by the GDG.

DISCUSSION (CONCLUSION): It is critical that the right level of detail is presented to the GDG so that they understand and support the quality rating and are comfortable making decisions and recommendations.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer

4. Guideline implementer
5. Developer of guideline-based products

S37– GRADE imprecision Criteria: Interpretation and impact on the NICE Lower Urinary Tract Symptoms in Men Guideline

Lee-Yee Chong, PhD (Presenter) (National Clinical Guidelines Centre (NCGC), London, England, United Kingdom); Clare Jones, MSc (National Clinical Guidelines Centre, London, England, United Kingdom); Kate Homer, MSc (*Formerly at NCGC, London, England, United Kingdom); Elisabetta Fenu, MSc (NCGC, London, England, United Kingdom); Jennifer Hill, PhD (National Clinical Guidelines Centre, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Lower Urinary Tract Symptoms (LUTS) in men is one of the first clinical guidelines developed by NICE (National Institute of Health and Clinical Excellence) that applied elements of GRADE. However, the minimal important difference (MID) values, which are important for grading imprecision, are unavailable for most clinical and patient-reported outcomes (PROs). This can be an important challenge when applying GRADE methods. This presentation describes the interpretation and application of the imprecision criteria in the LUTS guideline and to examine their impact on guideline recommendations.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To describe the interpretation and application of the imprecision criteria in the LUTS guideline.
2. To examine the impact of imprecision criteria on guideline recommendations.
METHODS: MID and optimal information size (OIS) values were determined for important outcomes based on MID values in published literature, expert opinion, and the default values recommended by the GRADE working group. PROs were the primary outcomes in the LUTS guideline and "distribution-based methods" of estimating MIDs based on standard deviations were applied. OIS values were calculated from median values of standard deviations in large studies and MIDs. MIDs were estimated using two or more approaches; values obtained can be compared to ensure consistency and increase confidence in these estimations.
RESULTS: The effect size and its variability in relation to the MID were considered when deciding whether an intervention has important additional benefits or harms. This affects GDG decision on whether to recommend an intervention. Where appropriate, the GDG took into account whether the pooled sample size was large enough to detect a difference based on the OIS.
DISCUSSION (CONCLUSION): The approach(es) and assumption(s) used to determine MIDs and their limitations should be stated explicitly and communicated to the GDG.

When seeking expert opinions for MID values, it is essential that they are aware of the importance of MIDs in guideline development.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Medical educator
5. Health care policy analyst/policymaker
6. Allied health professionals
7. Consumers' and patients' representatives
8. Nurses

S38– Guiding urology practice: The American Urological Association's (AUA) new guideline development process

Heddy Hubbard, PhD (Presenter) (American Urological Association, Linthicum, Maryland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): The American Urological Association (AUA) Guidelines Department has implemented several important changes to its guideline development program over the past three years, which have resulted in a more transparent, efficient, and scientifically rigorous guideline production process. The new process consists of nine stages, beginning with topic selection and panel identification, and ending with approval and publication of the guideline.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Explore methods to identify areas for improvement in guideline development and to develop priorities for process improvement.
2. Assess ways to institute change in processes and implement improvement in guideline development.
3. Learn to put in place a process for continuous quality improvement to respond to a constantly changing environment and growing expectations.
METHODS: The AUA developed its new process through a series of steps:
- Internal and external evaluations of the process, including an audit conducted by ECRI Institute, benchmarking with other similar organizations, and piloting ideas acquired from a range of forums, from published literature to guideline conferences.
- Implementing standards such as the use of levels of evidence that are linked to levels of recommendation, meticulous evidence-based systematic reviews for every guideline, rigorous update literature reviews (ULR) to assess guidelines for currency, and a stringent conflict of interest (COI) policy.
- Developing a system to continually evolve and refine its processes to meet the future needs and challenges of guideline development.

RESULTS:

- Duration of AUA guideline development was reduced from 3.5 years to 2 years, with a corresponding cost reduction per guideline.
- The guidelines are more scientifically rigorous and transparent.
- The reduced burden on physician panel members along with an improved process has resulted in a positive response from the panels.

DISCUSSION (CONCLUSION): The improvements made by the AUA to its guideline development process have resulted in higher-quality guidelines being produced in a shorter period of time at a reduced cost. The guidelines will be updated more frequently due to the ULR program. A process has also been established for continuous quality improvement.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator

S39– How mixed treatment comparisons can aid decision making in guidelines with limited or poor-quality evidence

Katrina L. Sparrow, MS (Presenter) (National Clinical Guidelines Centre, London, England, United Kingdom); Laura Sawyer, MS (National Clinical Guidelines Centre, London, England, United Kingdom); Vanessa Nunes, MS (National Clinical Guidelines Centre, London, England, United Kingdom); Norma O'Flynn, MD (National Clinical Guidelines Centre, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) commissioned the National Clinical Guidelines Centre for Acute and Chronic Conditions (NCGC-ACC) to produce a guideline on the management of nocturnal enuresis in children. The nocturnal enuresis guideline conducted direct comparison evaluations using meta-analysis and indirect comparisons using mixed treatment comparison in order to analyze and present evidence to the guideline development group (GDG).
PURPOSE: To present our experience and learning points of mixed treatment comparisons for the nocturnal enuresis guideline to aid the formation of recommendations.
LEARNING OBJECTIVES (TRAINING GOALS):

1. Understanding how mixed treatment comparisons can aid formation of recommendations and guideline development.
2. Understanding how mixed treatment comparisons can be used in guidelines with limited evidence or evidence of low methodological quality.

METHODS: Mixed treatment comparison is an analysis that includes trials that compare relevant interventions head-to-head and trials that compare them indirectly. Mixed treatment comparison is not included in the NICE guideline manual, but is being increasingly used to analyze the results of the different interventions being evaluated.
RESULTS: The direct evidence of clinical effectiveness identified was generally of low methodological quality and therefore the guideline developers used mixed treatment comparison techniques to complement conventional meta-analysis, augment statistical power, and present evidence to the GDG.
DISCUSSION (CONCLUSION): It can be difficult to make strong recommendations for evidence-based guidelines using direct comparisons when there is limited or low-quality data. The nocturnal enuresis guideline identified a small amount of direct clinical effectiveness evidence with some networks, which were of limited methodological quality. The developers conducted a mixed treatment comparison for the primary outcomes and subgroups of the nocturnal enuresis guideline. We will discuss the presentation of the mixed treatment comparison for a guideline with limited evidence, how it aided formation of recommendations, and the lessons learned for future guidelines faced with the similar problem of a small evidence base.
TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Health care policy analyst/policymaker

S40– How well do methodological search filters perform?

Rikie Deurenberg, MS (Presenter) (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Kitty Rosenbrand, MD (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Marjo Poth, MS (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Lynda Ayiku, MS (National Institute for Health and Clinical Excelle, Manchester, England, United Kingdom); Leena Lodenius (Finnish Medical Society Duodecim, Helsinki, Finland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Search filters or hedges are important to retrieve the best available evidence for evidence-based guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):

1. Check performance of search filters for retrieval of the best evidence for guideline development to identify the optimal filter.
2. Estimate the precision of filters with realistic values from performance tests.

METHODS: Comparison of performance of three methodological search filters against a gold standard was performed.

This standard was constructed by the SEARCH group and used as a validation or comparison database to check retrieval properties of filters. Five guideline organizations, CBO, HAS, IUMSP, AQuMed, and INCa, added key references to this database. The tested filters are filters for systematic reviews/meta-analyses, randomized controlled trials (RCTs), and observational studies. The filters are in use by the guideline organizations in October 2009. Also a consensus filter for each study design, developed during the SEARCH workshop of the GIN conference in Lisboa by participants, was tested.

RESULTS: In the validation database 83 references were classified as systematic reviews/meta-analysis. The recall of the tested search filters for this study design ranged from 73% to 100%. As RCTs, 228 references were classified and the recall of filters for RCTs ranged from 94% to 98%. The database contained 207 references classified as observational studies. The recall for this design ranged from 66% to 78%. Looking at the "Lisboa" consensus filter, recall for systematic reviews/meta-analysis was 100%, for RCTs 97%, and for observational studies 77%.

DISCUSSION (CONCLUSION): The data show that much can be learned by comparing search methods for retrieval of literature. If guideline organizations use the same methodological search filters, effective and efficient collaboration is promoted. The validation or comparison database offers a tool to use for informed decisions about filter choice. Overall, better retrieval of available strong evidence is considered as important. The SEARCH group has the intention to share many products for information retrieval.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Allied health professionals
7. Consumers' and patients' representatives

S41– Just finished developing a guideline; how did we do? A process evaluation

Christa Harstall, MHSA (Presenter) (Institute of Health Economics, Edmonton, Alberta, Canada); Paul Taenzer, PhD (Calgary Pain Program, Calgary, Alberta, Canada); Nancy Zuck, MSc (Sumera Management Consulting, Edmonton, Alberta, Canada); Carmen Moga, MD (Institute of Health Economics, Edmonton, Alberta, Canada); Donna Angus, MHSA (Alberta Innovates - Health Solutions, Edmonton, Alberta, Canada); Ann Scott, PhD (Institute of Health Economics, Edmonton, Alberta, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods

BACKGROUND (INTRODUCTION): The ADAPTE framework outlines a systematic approach for adapting clinical practice guidelines (CPGs) to a local context. The Alberta Health Technology Assessment Ambassador Program melded and contextualized seven 'seed' guidelines into one CPG on low back pain. We identified the successful strategies and major challenges associated with the process used to develop the CPG, benchmarked the process with the ADAPTE framework, and identified opportunities for improvement to replicate the process for the next CPG.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify the successes and challenges of a guideline adaptation program.
2. Describe a framework for evaluating a guideline adaptation process.

METHODS: An external consultant developed an Evaluation Framework and used the following data sources:

Document review of major program materials and the ADAPTE Framework and Toolkit.

Semi-structured telephone interviews conducted with participants of the Ambassador Program Committees.

RESULTS: Even though the Alberta health-care system was undergoing major changes we had a response rate of 86% (30/35). There was strong consensus among the stakeholders interviewed that the process used to develop the CPG for low back pain was a sound and rigorous research process. This was primarily due to the following: strong project leadership; multidisciplinary approach; province-wide representation on both the Advisory Committee and Guideline Development Group (GDG); relevance to primary health care; substantial support provided by the Project Team; commitment among all participants to a transparent process; and a quality, evidence-informed product. The process was found to be closely aligned with the ADAPTE framework and included additional enhancements to the quality appraisal tool for the CPGs and the use of the GLIA tool to develop the recommendations and patient input.

DISCUSSION (CONCLUSION): All members of the GDG indicated that they would participate in the development of the next CPG.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

S42– KP Integrated Cardiovascular Disease (CVD) Risk Reduction Guidelines

Craig Robbins, MD (Presenter) (Care Management Institute, Kaiser Permanente, Dever, Oregon); Wiley Chan, MD (Kaiser Permanente, Portland, Oregon)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): In 2008, the Care Management Institute (CMI) at Kaiser Permanente (KP) began

work on an Integrated Cardiovascular Health (ICVH) initiative that integrates primary prevention, secondary prevention, and treatment for those at risk for cardiovascular disease and those with known coronary artery disease (CAD), diabetes, hypertension, and dyslipidemia. In addition to medication management, lifestyle risk factors such as weight management, tobacco cessation, primary prevention, and reduction of global cardiovascular risk are integrated into this initiative.

Over the last several years, the CMI-facilitated KP National Guideline Program (NGP) developed distinct national guidelines for CAD, diabetes, hypertension, and dyslipidemia. Over time, the scope of these individual guidelines increased. In certain cases, clinical recommendations were developed across these guidelines that overlapped, sometimes with conflicting advice.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify and address opportunities to streamline clinical recommendations across related guidelines.
2. Avoid inconsistency in recommendations across related guidelines.

METHODS: In 2009, to address these issues and better support the work of the ICVH initiative, the NGP began work to integrate its cardiovascular guidelines. We assembled a lead team made up of the clinical leads of each of the component guidelines that was charged with oversight and governance of the entire set of ICVH recommendations.

RESULTS: The main product will be an Integrated CVD Risk Reduction Guideline. Clinical recommendations from the previous CAD, diabetes, hypertension, and dyslipidemia guidelines that relate to CVD risk reduction will be coordinated and pooled together. The individual guidelines will maintain some unique clinical recommendations.

DISCUSSION (CONCLUSION): In the future, the complete CAD, diabetes, and hypertension guidelines will include both the pooled and the unique clinical recommendations. As the project progresses, individual recommendations will be updated as appropriate when new studies are published. We will present our progress to date on integrating these CVD guidelines.

TARGET AUDIENCE(S):
1. Guideline developer
2. Developer of guideline-based products
3. Medical providers and executives

S43– Low back interventions and opioid treatment guidelines: Comparison between ACOEM and APS
Christopher J. Wolfkiel (Presenter) (ACOEM, Elk Grove Village, Illinois); Julie Ording, MPH (ACOEM, Elk Grove Village, Illinois); Matthew Hughes, MD (University of Utah, Salt Lake City, Utah)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Guidelines from the American College of Occupational and Environmental Medicine (ACOEM) and the American Pain Society (APS) on low back interventions and opioid therapy have been recently published. Both sets of guidelines were developed with a similar methodology and found similar quality trials on which to base recommendations. Both methodologies relied on original synthesis of evidence and did not use systematic reviews in developing recommendations. In addition to a defined quality evidence process, ACOEM's methodology also includes a set of principles which guided panel interpretation of the evidence. These principles generally favor conservative versus invasive treatments in the absence of quality evidence for consensus recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Comparing same topic guidelines of similar methodologies.
2. Assessing the impact of insufficient evidence.

METHODS: The ACOEM and APS evidence levels and recommendations were compared.

RESULTS: ACOEM and APS generally agreed with evidence levels but had significant recommendation differences in low back interventional therapies, surgery, and interdisciplinary rehabilitation. APS had 16/30 (53%) interventions where insufficient evidence precluded a recommendation; of those, only botulinium injections had a corresponding "No Recommendation," the rest were "Not Recommended" by ACOEM. APS and ACOEM agreed on "Not Recommending" prolotherapy, intradiscal steroid injection, and facet joint steroid injection. Perhaps most interestingly, APS issued a weak recommendation for fusion surgery in patients with nonradicular pain and common degenerative changes where ACOEM concluded a "Not Recommended" for nonspecific low back pain.

DISCUSSION (CONCLUSION): These comparisons suggest that there is a significant potential for recommendation disagreement, especially when evidence is insufficient. Harmonization efforts should take into account value systems in addition to evidence methodologies.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Health care policy analyst/policymaker
5. Health insurance payers and purchasers
6. Medical providers and executives

S44– Rapid development and implementation of guidelines for infant neuroprotection with antenatal magnesium sulfate (MgSO4)
Philippa F. Middleton (Presenter) (The University of Adelaide, North Adelaide, South Australia, Australia); Caroline A. Crowther (The University of Adelaide, North Adelaide, South Australia, Australia); Lex W. Doyle (University of Melbourne, Parkville, Victoria, Australia); Tanya Bubner (The University of Adelaide, North Adelaide, South Australia, Australia); Helena Oakey (The University of Adelaide, North Adelaide, South Australia, Australia); Jonathan Morris (The University of

Sydney, Sydney, New South Wales, Australia);
Lisa Askie (The University of Sydney, Camperdown,
New South Wales, Australia); Peter G. Davis (The
University of Melbourne, Parkville, Victoria,
Australia); Vicki Flenady (Mater Hospital,
Woolloongabba, Queensland, Australia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): A Cochrane review (Doyle 2009) provides the first conclusive demonstration that antenatal magnesium sulfate prior to preterm birth prevents cerebral palsy. Clinical practice guidelines were urgently required, as few maternity units in Australia and New Zealand (and elsewhere) use magnesium sulfate for this indication.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods for rapid guideline development without compromising quality.
2. How to integrate updating plans as part of initial guideline development.
3. Identify implementation issues.
METHODS: Guideline development followed Australian National Health and Medical Research Council and New Zealand Guideline Group processes. A multidisciplinary panel was established to develop questions, review the evidence, formulate and grade recommendations, document good practice points and implementation issues, propose priorities for future research, and undertake public consultation.
RESULTS: The guidelines were developed in six months and will be released in March 2010. They contain seven recommendations and six good practice points that provide practical guidance for health-care providers. Implementation issues relate mainly to additional staff time required for setting up, maintaining and monitoring MgSO4 infusions. Individual hospitals will audit MgSO4 use with the intent for a national audit and linkage to cerebral palsy registers. The present guideline will be updated with any new data, such as the results of an individual patient data analysis, currently underway.
DISCUSSION (CONCLUSION): These guidelines address a 'translational flashpoint' of new knowledge and demonstrate that development and implementation processes can be rapid, responsive, and agile without sacrificing scientific rigor and quality. Importantly, through helping to prevent cerebral palsy, these guidelines should lessen the devastating consequences of preterm birth.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Medical providers and executives
8. Consumers' and patients' representatives
9. Nurses

S45– The development of a Guideline Implementability Tool (GUIDE-IT) to facilitate the use of Canadian Cardiovascular Guidelines

Monika Kastner (Presenter) (Toronto, Ontario, Canada); Elizabeth Estey (Toronto, Ontario, Canada); Sharon E. Straus (Toronto, Ontario, Canada); Jeremy Grimshaw (Ottawa Health Research Institute, Ottawa, Ontario, Canada); Merrick Zwarenstein (Toronto, Ontario, Canada); Andreas Laupacis (Toronto, Ontario, Canada); Ian Graham (Ottawa, Ontario, Canada); Onil Bhattacharyya (Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Clinical practice guidelines are not consistently implemented, but making them easier to follow may increase their impact. Implementability, a "set of characteristics that predict the relative ease of implementation," is best assessed by both guideline developers and users, whose views may differ. Current tools are not designed to identify and resolve these differences. The objective of our study was to validate a core set of guideline dimensions of implementability based on findings of a realist review, and to develop a guideline implementability tool (GUIDE-IT) prototype targeted to both guideline users and developers.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To validate and build on a set of guideline dimensions of implementability based on findings from a realist review.
2. To explore perceptions of guideline developers and users of the guidelines development process and its use.
3. To build a prototype implementability tool (GUIDE-IT).
METHODS: We conducted a qualitative study of focus groups (FGs) with physicians (guideline developers, users, and a mixed group) involved in cardiovascular care to identify optimal guideline attributes that affect implementability, and to explore perceptions of the facilitators and barriers to using guidelines. Another FG was done to identify the components that should be included in the prototype of GUIDE-IT. Audiotaped sessions were transcribed verbatim, and qualitative analysis was guided by grounded theory methodology.
RESULTS: Findings revealed expected guideline dimensions (e.g., actionable) and their trade-offs (e.g., evidence-based vs. specificity and clarity). The mixed FG engaged guideline users and developers to reveal other attributes during the guideline development process (e.g., to facilitate communication), and to operationalize a common set of implementability dimensions. Features of existing tools such as GLIA and findings from the FG where participants identified potential GUIDE-IT components were then used to build the prototype.
DISCUSSION (CONCLUSION): Our study represents a novel contribution to closing gaps in guideline implementability. We used empirically supported perspectives of guideline users and developers on implementability to determine the list of dimensions that can feasibly engage both populations for using GUIDE-IT.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products

S46– The development of recommendations for optimal organization of care in Parkinson's disease

Samyra HJ Keus, PhD (Presenter) (Radboud University Nijmegen Medical Center, Nijmegen, Netherlands); Teus van Laar, PhD (University Medical Center Groningen, Groningen, Netherlands); Jean A. Vriezen, PhD (NHG (Dutch College of GPs), Utrecht, Netherlands); Sander Flikweert (†), MD (NHG (Dutch College of GPs), Utrecht, Netherlands); Marlies E. Hulscher, PhD (Radboud University Nijmegen Medical Center, Nijmegen, Netherlands); Marten Munneke, PhD (Radboud University Nijmegen Medical Center, Nijmegen, Netherlands); Bastiaan R. Bloem, PhD (Radboud University Medical Center, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Given the complex and progressive nature of Parkinson's disease (PD), many patients require multidisciplinary care. However, guidelines for the optimal organization of such care were not available. A national, multidisciplinary guideline for PD has been developed in the Netherlands (Bloem et al, 2010). This guideline was partially an update and extension of the NICE guideline for PD (2006), supplemented with newly developed recommendations to optimize the organization of multidisciplinary care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn how to develop recommendations for optimal organization of (complex) PD care.
2. Understand how recommendations of care organization can be incorporated within a multidisciplinary care guideline.
METHODS: Using focus group interviews, PD patients and health-care professionals identified barriers in the current organization of care. A literature search was performed to identify additional barriers. The identified barriers were transformed into requirements for optimal care and combined with recommendations provided by the NICE guideline. An integrated model and recommendations for the organization of care were then developed based on consensus among patients and health-care professionals.
RESULTS: Sixteen requirements for optimal PD care were identified, covering: 1) expertise; 2) communication and cooperation; 3) coordination of care; and 4) finances. To address these issues, 48 specific recommendations were developed.

Some recommendations concern a specific health-care professional or the relationship between two professionals, whereas other recommendations are generally applicable. We combined these recommendations in an integrated health care model with a central role for the patient, neurologist and Parkinson nurse specialist, general practitioner, rehabilitation specialist, and nursing home doctor.
DISCUSSION (CONCLUSION): Recommendations for optimal organization of PD care have been developed as part of a multidisciplinary, evidence-based clinical practice guideline. These recommendations apply to all health-care professionals involved in the care of patients with PD.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Allied health professionals
6. Consumers' and patients' representatives
7. Nurses

S47– The network guideline: A new model of developing a multidisciplinary guideline

Tjerk Wiersma, MD (Presenter) (Dutch College of General Practitioners, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Traditionally, multidisciplinary guidelines are developed by large working groups with representatives from all relevant disciplines. As a consequence, the guideline development process is time consuming and the discussions in the working group are complicated. The guidelines produced tend to become voluminous book-works, which will never be read by busy doctors. Due to conflicts of interest of participating professionals, the recommendations frequently are ambiguous. As a result, they insufficiently guide everyday practice of the individual professional. A new and more efficient model of guideline development is needed.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Introduce a new method of guideline development.
2. Show how to produce clearer guidelines better usable for professionals of different types.
METHODS: We decided to experiment with a simultaneous development of four monodisciplinary guidelines by the disciplines most involved on the topic of subfertility. General practitioners described the care for subfertile couples in primary care, essentially identifying couples with low chances to become pregnant spontaneously; gynecologists developed recommendations for doing intrauterine sperm insemination and in vitro fertilization; and urologists diagnostic procedures in men with low sperm count. Clinical chemists at the end formulated recommendations about the procedure to be followed in analyzing sperm itself. Besides, patients were invited to

formulate their own wishes with regard to subfertility treatments.

Of course, the connection between these four guidelines had to be guaranteed. For example, all should use the same definitions and the same criteria for referral. This was done by a network group in which one or two delegates from the monodisciplinary study groups participated. The network group also formulated recommendations to facilitate cooperation and communication between disciplines.

RESULTS: Four monodisciplinary guidelines were produced together with a connecting network guideline. Their main recommendations and the most important differences with former guidelines will be shown.

DISCUSSION (CONCLUSION): Main advantages and disadvantages of the new procedure will be presented.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Consumers' and patients' representatives

S48– "Less is more": The minimal dataset in reviews for guidelines

Maggie Westby, PhD (Presenter) (National Clinical Guideline Centre, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Clinical guidelines for the National Institute for Health and Clinical Excellence (NICE) are produced in a short space of time (in practice, about 12 months' development time). The clinical evidence consists of, perhaps, 15 systematic reviews of the literature. The challenge is to optimize the process without losing quality. One approach is to use a database for reviewing, and we examine whether it is possible and desirable to minimize the amount of data extracted.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Discuss methods for conducting systematic reviews for guidelines more efficiently.
2. Understand how relational databases can be used to guide systematic reviewing and guideline development.

METHODS: We assessed a set of NICE guidelines with regard to the types of data extracted for intervention reviews, including risk of bias assessment. We identified themes and classified items extracted into "essential," "possibly helpful," and "unnecessary/unused," based on their use in the rest of the review. This led to a list of minimum items that should be extracted, consisting of items common to all guidelines and review-specific items, the number and content of which varied according to the review. We tested the concept of the minimal dataset using a Cochrane review: a group of reviewers determined the review-specific items, all and minimal, by interviewing the Cochrane author. The minimal list was transformed

into a relational database with several drop-down options, and a second relational database was produced based on all possible items. Matched reviewers extracted data into the two databases and used the two sets of data to carry out a systematic review.

RESULTS: Times taken to extract into the two databases are reported and reviewer opinions were determined. We also asked the reviewers if they needed to return to the studies for more information.

DISCUSSION (CONCLUSION): We report the ways reviewers elicited the minimal dataset and discuss how this might be improved.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer

S49– "The network approach": A feasible method in clinical guideline development

Elvira M.E. Den Breejen, MD (Presenter) (Radboud University Medical Center Nijmegen, Nijmegen, Netherlands); Willianne L.D.M. Nelen, MD (Radboud University Medical Center Nijmegen, Nijmegen, Netherlands); Tjerk J. Wiersma, MD (Nederlands Huisartsen Genootschap, the Netherland, Utrecht, Netherlands); Rosella P.M.G. Hermens (Scientific Institute for Quality of Healthcare, Nijmegen, Netherlands); Jan A.M. Kremer, MD (Radboud University Medical Center Nijmegen, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Beyond complex care pathways, there is often a network consisting of different professionals. Currently, two strategies are applied to develop guidelines for such complex pathways: a set of monodisciplinary guidelines or one tremendous multidisciplinary guideline. Both strategies can result in inconsistencies of care, failure of implementation, and less improvement of quality of care. It's time for an innovative method for multidisciplinary guideline development, predominated by respect for the autonomy of individual professions and more evidently based on patients' pathway. Aim of this study is to investigate whether this approach is feasible.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To demonstrate how the network approach can result in a core guideline characterized by patient-centeredness.
2. Network thinking in guideline development is like a solar system supported by its satellite guidelines.
3. Simultaneous guideline development offers opportunities in acceleration and transparency to the guideline development process.

METHODS: In February 2008 a broad collaboration of stakeholders was set up to develop a core network guideline (sun)

on infertility care. This core guideline was dominated by the focus on organizational and patient-centered aspects, transitions in care, and evident linkage within all guidelines. Furthermore, four guideline development groups were formed to develop additional multidisciplinary guidelines (satellites). A coordinator of the whole network project was appointed and a steering committee was formed. By finishing the project this new approach was evaluated by in-depth interviews followed by a questionnaire within all guideline developers.

RESULTS: Within 20 months all five multidisciplinary guidelines were finished and equalization was reached within all ten professions. Of all 198 core guideline recommendations, 59% were within organizational and patient-centered care domains.

DISCUSSION (CONCLUSION): Network thinking is like a solar system in guideline development and results in a core guideline that focuses on organizational and patient-centered aspects. Furthermore, this seems to be a new approach of bridging and interlinking guidelines and acceleration in guideline development. Network thinking seems to be an ideal methodology for guideline development in complex clinical pathways.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Allied health professionals
9. Consumers' and patients' representatives

S50– Developing a systematic approach to link CPG and patient safety

Ignacio Marin-Leon, PhD (Presenter) (Valme University Hospital, Fundacion Enebro, Seville, Spain); Silvia Vidal, MD (Valme University Hospital, Seville, Spain); Asunción Navarro, MD (Valme University Hospital, Seville, Spain); Eduardo Briones, MD (Valme University Hospital, Fundacion Enebro, Seville, Spain); Carlos Alonso (Valme University Hospital, Seville, Spain); Alberto Romero, PhD (Valme University Hospital, Seville, Spain)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines and patient safety

BACKGROUND (INTRODUCTION): AHRQ and NQF define a patient safety practice as a type of process or structure whose application reduces the probability of adverse events resulting from exposure to the health-care system across a range of diseases and procedures. Improving patient safety often involves the coordinated efforts of multiple approaches of the health care team, through the entire process of care.

While CPG must be part of the solutions to patient safety problems, many relevant processes have received at least some analysis or empirical study in the health care literature relating to safety, but guidelines.

This project aimed to focus on the role of CPG as decision-making tools to reinforce patient safety.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Propose a checklist to assess how guidelines concern about patient safety.
2. Identify relationship between safety domains and guideline concept.

METHODS: Driven by two seminal reports, the AHRQ "Making Health care Safer" and The WHO ICPS "The Conceptual Framework for the International Classification for Patient Safety," which structure the taxonomy and conceptual framework of patient safety, we develop a tentative list of criteria that could interact with the Guideline developing and implementation steps. We review a well-accepted Guidelines Manual, the GRADE system, GLIA and AGREE, in relation with the Content Concept and Domains for patient safety: a) the 10 high-level classes from the conceptual framework for the ICPS, with their 49 taxonomy concepts, and b) the 14 domains of risk for potential-of-harm approach.

By iterative expert consensus process we develop a tentative checklist of items that relate patient safety and CPG.

RESULTS: A checklist of criteria to assess how guidelines elaborating and implementing process are concerned with patient safety.

DISCUSSION (CONCLUSION): A validation study for the checklist will be proposed.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Consumers' and patients' representatives
9. Nurses

S51– Developing patient safety evidence-based care recommendations to improve child outcomes

Karen J. Vonderhaar, MS (Presenter) (Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines and patient safety

BACKGROUND (INTRODUCTION): The organization was faced with the objective of improving child health and meeting the Joint Commission's National Patient Safety Goal of improving the safe use of medications, specifically anticoagulation therapy. An interprofessional team developed and implemented anticoagulation care recommendations through-

out the organization to standardize care and improve the outcome for children and adolescents.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Discuss development of anticoagulation recommendations which meet Joint Commission's National Patient Safety Goals.
2. Understand how to implement Best Evident Statements into practice to improve child outcomes.

METHODS: An interprofessional group consisting of physicians, guideline developers, methodologists, a pharmacist, and a nurse convened to develop anticoagulation care best evidence statements (BESt) based upon the guidelines published by the American College of Chest Physicians (ACCP). These locally developed statements assisted the organization in meeting the Joint Commission's National Patient Safety Goal, safety of using medication. Once developed, implementation began, which included just-in-time education for residents and attending physicians, online training for nursing staff, and training at staff meetings for the pharmacists. With the timely build, implementation, and rollout of a new electronic medical record (EMR) in the organization, the anticoagulation BESts were integrated into the EMR system.

RESULTS: Pediatric care recommendations based upon the ACCP published guidelines resulting from the efforts of the interprofessional team were: management of warfarin therapy, management of therapeutic unfractionated heparin, and management of low-molecular-weight heparin therapy. These clinical aspects of the BESts were incorporated into the electronic medical record.

DISCUSSION (CONCLUSION): A large pediatric organization met and exceeded the Joint Commission National Patient Safety Goal–safely using medications, specifically anticoagulation medications. By developing and implementing three BESt evidence statements, the organization was able to standardize anticoagulation therapy. BESt evidence statements, adapted for the pediatric patient population from the 2008 ACCP guidelines, guide clinicians to safely care for children with potentially harmful drugs.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Medical providers and executives
7. Allied health professionals
8. Nurses

S52– Glucose management by RNs for adult patients hospitalized in medical wards: Structured guidelines (protocol) and working process
Khalil Khoury, BScPharm (Presenter) (Hadassah Medical Organization, Jerusalem 91120 Pob 12000, Israel, Israel)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines and patient safety
BACKGROUND (INTRODUCTION): Hyperglycemia in hospitalized patients is a common and severe condition that is estimated to affect over 38% of all hospitalized patients. Increasing evidence confirms that hyperglycemia leads to poor clinical outcomes, extended hospitalization, disability, and increased mortality. Both the American Diabetes Association and American College of Endocrinology have recommended the establishment of structured guidelines for controlling hyperglycemia in hospitalized diabetic patients. Recently, the Israeli National Diabetes Council has proposed establishing a standardized protocol to provide effective treatment for hyperglycemic hospitalized patients.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe the development and introduce the protocol designed to achieve standardized care of patients with hyperglycemia who are hospitalized in medical wards of a tertiary hospital in Jerusalem.
2. Defines and outlines areas of authority and responsibility of nurses and physicians, and offers a precise definition of the patient population.

METHODS: A protocol was established by a multidisciplinary team including diabetes specialists, physicians, and nurses. Approval was obtained from the institutional nursing administration, physician's hospital management, and the diabetes unit of the section of Endocrinology. The assumption was that protocol-based practice would improve control of glucose levels of hospitalized patients with hyperglycemia, and would guide insulin-based treatment based on the balas-bolus regimen, with no elevation in hypoglycemia rates. The protocol also expands the autonomy of RNs to monitor and balance glucose levels and specify interfaces with physicians and other team members.

RESULTS: Based on published recommendations in the literature and those from the National Diabetes Council of Israel, new guidelines for medical patients were created. The presentation will include the process of creating the guidelines, the protocol itself, and the process of implementation.

DISCUSSION (CONCLUSION): Until today, no standardized protocol to treat diabetes medical patients has been applied, despite the fact that there are significant differences in methods of treatment and interventions. These differences are typical between wards and within the same ward among different physicians. Treating diabetic patients, hospitalized in medical wards, based on a recommended protocol guarantees standardization of treatment and better quality.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator

4. Medical providers and executives
5. Nurses

S53– Challenges to developing guidelines for a public dental service

Carmel Parnell, MPH (Presenter) (Oral Health Services Research Centre, Cork, Ireland);
Patrice James, MPH (Oral Health Services Research Centre, Cork, Ireland); Helen Whelton, PhD (Oral Health Services Research Centre, Cork, Ireland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for allied health professionals
BACKGROUND (INTRODUCTION): Dental caries remains a substantial problem for many Irish children, in spite of extensive water fluoridation. A limited public dental service (PDS) provides the only free dental care for children up to age 16. Access to non-emergency care starts at age 7 or 8, and levels of untreated decay are high. A review of the PDS service concluded that services were not being delivered in line with current best evidence.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Appreciate the challenges to developing guidelines in a setting with no culture of guideline development.
2. Understand the challenges posed by apparently commonsense recommendations.
METHODS: The guideline was developed in accordance with the principles of the AGREE Instrument and drawing on the methodology of NICE and SIGN. A guideline development group, representing key stakeholders, worked with a research team to identify, appraise, summarize, and interpret evidence and develop recommendations tailored for the Irish context.
RESULTS: The guideline advocates a reorientation of the public dental service towards early identification of children at high caries risk, using non-dental health professionals to identify high-caries-risk preschool children. Systematic caries risk assessment using a specially developed and piloted Caries Risk Assessment Checklist (CRAC) should be completed for all children attending the dentist. Recommendations on the identification of high-caries-risk populations are also presented. Strategies for caries prevention at population, targeted population, and individual levels complete the guideline.
DISCUSSION (CONCLUSION): This guideline represents the first evidence-based approach to addressing deficiencies in the delivery of public dental services for children in Ireland. Although many recommendations may seem unremarkable, for the PDS, the guideline represents a radical change in how dental care is provided for children. The implementation of this guideline offers major challenges, but also clear potential to improve the oral health of Irish children.
TARGET AUDIENCE(S):
1. Guideline developer
2. Allied health professionals

S54– Development of pharmacist-specific diabetes guidelines

Rosemary M. Killeen, BScPharm (Presenter) (Canadian Pharmacists Journal, Ottawa, Ontario, Canada); Jeff Johnson, PhD (University of Alberta, Edmonton, Alberta, Canada);
Richard Lewanczuk, PhD (University of Alberta, Edmonton, Alberta, Canada); Ross Tsuyuki, PharmD (University of Alberta, Edmonton, Alberta, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for allied health professionals
BACKGROUND (INTRODUCTION): The Canadian Pharmacists Journal (CPJ) is the only peer-reviewed publication focused on practice research and knowledge translation for pharmacists in Canada. Its mission is to enhance patient care through advancement of pharmacy practice. CPJ has emerged as an innovator in the field of knowledge translation, publishing pharmacist-specific clinical practice guidelines, practice tips, and tools.

To coincide with the publication of the Canadian Diabetes Association (CDA) 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada in 2008, the CPJ was engaged to develop a pharmacist-specific summary as part of a national Diabetes Strategy for Pharmacists program, funded by the Public Health Agency of Canada (PHAC).
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods for adapting guidelines for allied health professionals.
2. Assess the dissemination to and implementation of national guidelines by allied health professionals.
METHODS: Under the direction of guest editors, both members of the Expert Committee that developed the CDA document, and the editor-in-chief, the CPJ team identified the topics most relevant to pharmacists, summarizing the original 215-page document into 48 pages. The summary highlights the CDA recommendations most pertinent to pharmacy practice, and provides original practice tips and key points to facilitate their implementation. All content was reviewed by a minimum of three experts, including pharmacists from different practice settings and physicians, and was adapted from the Canadian Diabetes Association guidelines with their permission.
RESULTS: The pharmacist-specific guidelines were translated into French and were published as English and French supplements to CPJ print and online editions (available at www.cpjournal.ca/diabetes) in March 2009. The project was formally recognized by the Canadian Pharmacists Association and Canadian Diabetes Association as part of the "Partners in Progress" initiative.
DISCUSSION (CONCLUSION): Evaluation of the impact of these guidelines on pharmacy practice and patients is now underway, funded by the Public Health Agency of Canada (PHAC).

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Allied health professionals

S55– Involving stakeholders in developing multidisciplinary and cross-sectoral clinical practice guidelines in social services

Jean-Pierre Duplantie, DrPH (Presenter) (AETMIS, Montréal, Québec, Canada); Reiner Banken, MSc (AETMIS, Montreal, Québec, Canada); Sylvie Beauchamp, DrPH (AETMIS, Montréal, Québec, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for allied health professionals
BACKGROUND (INTRODUCTION): In 2009, the government of Québec broadened the mandate of AETMIS (Québec's HTA agency) and tasked it with developing clinical practice guidelines (CPGs) for health and social services (SSs).
LEARNING OBJECTIVES (TRAINING GOALS):
1. To define an interrelated continuum of health and SSs for improving health and well-being.
2. To initiate a learning process for developing multidisciplinary and cross-sectoral CPGs, taking into account the culture and values specific to the various fields of SSs.
3. To enable the two sectors to share their experience in understanding the scientific basis for CPG development and implementation.
METHODS:
1. Meet with individual stakeholders (n=21) from different disciplines and decision-making levels.
2. Meet with groups of key stakeholders from both sectors.
3. Plan a one-day symposium on CPGs in SSs.
4. Form a multidisciplinary and cross-sectoral working group on CPGs, including decision makers, civil servants, scientists, clinicians, and SSs clients.
RESULTS:
- The search for clinical excellence is an integral part of all SSs fields.
- A consensus emerged on the importance of sharing a common language for CPG development among the various fields of SSs.
- The two sectors have distinctive clinical practice characteristics, yet the CPG development process is similar in both.
- A consensus emerged on the need for a multidisciplinary and cross-sectoral approach to developing CPGs.
DISCUSSION (CONCLUSION): Key stakeholders in SSs share a common vision of the importance of improving professional practice in the interrelated continuum of health services and SSs. Building a model for the development of multidisciplinary and cross-sectoral CPGs will contribute to more effective care and will improve health and well-being.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Health care policy analyst/policymaker
6. Medical providers and executives
7. Allied health professionals
8. Consumers' and patients' representatives

S56– Developing patients' versions: The experience from a Clinical Practice Guideline (CPG) for Autistic Spectrum Disorders (ASD)

Raquel Luengo (Health Technology Assessment Unit, Madrid, Spain); Javier Gracia (Presenter) (Health Technology Assessment Unit, Madrid, Spain); Beatriz Nieto (Madrid, Spain); Petra Diaz del Campo (Madrid, Spain); Juan Antonio Blasco (Health Technology Assessment Unit, Madrid, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for patients
BACKGROUND (INTRODUCTION): The development of a quality CPG implies the inclusion of patients' version (in our case parents' versions) as part of the complete CPG. Our guideline focuses on early detection of children (0 to 6 years old) with Autistic Spectrum Disorders (ASD) in primary care (PC). The purpose is to develop parents' version of a guideline for the management of ASD in PC.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how patients and patients' representatives can collaborate in developing patients' versions of guidelines.
2. Explain the keys to develop a high-quality patient version guideline.
METHODS: Systematic review of the evidence from relevant quantitative and qualitative studies was done. A subgroup of the guideline development group, including parents and patients' associations, worked together in the development process of the parents' versions, taking into account parents' perspective and needs.
RESULTS: Two different versions of parents' information were developed for two different scenarios in PC. The first scenario is about suspecting that a child has a developmental disorder; this version is focused on addressing doubts and lack of knowledge of parents about the referral process to specialists. The second scenario is the case of an ASD diagnosed child; this version is focused on addressing doubts about the ASD and in providing useful resources for parents. A professional illustrator (father of a girl with ASD) helped with illustrations and design of the parents' versions format.
DISCUSSION (CONCLUSION): Patients'/parents' version adapted from a quality CPG, considering relevant evidence and patients' views, is an important element for an

effective dissemination and implementation of recommendations. Considering different scenarios would be a facilitator for both professionals and patients to apply this CPG in daily ASD management.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical providers and executives
5. Allied health professionals
6. Consumers' and patients' representatives

S57– Patient guidelines in oncology: A comparison of international standards and methodologies

Markus Follmann, MD (Presenter) (German Cancer Society, Berlin, Germany); Silke Kirschning (Agency for Quality in Medicine, Berlin, Germany); Ina Kopp, MD (Association of the Scientific Medical Societies, Marburg, Germany); Corinna Schaefer (Agency for Quality in Medicine, Berlin, Germany)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines for patients

BACKGROUND (INTRODUCTION): In 2008, the German Guideline program in Oncology was launched under the auspices of the German Cancer Society, the German Cancer Aid, and the Association of the Scientific Medical Societies. Since a major goal is to provide current and evidence-based information to cancer patients, patient versions are a mandatory element for guidelines developed in this program. These patient guidelines are developed according to the structured methodology of the National Program for Disease Management Guidelines in Germany.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To assess the inventory of oncologic patient guidelines within GIN member organizations.
2. To internationally compare methodology of developing oncologic patient guidelines.

METHODS: Websites of all GIN members and former GIN members (n=109) were searched to identify documents containing patient information directly related to a current CPG on cancer by using the search terms "patient information," "patient guideline," "lay version," and "consumer resources." We further investigated, whether the information was developed according to a defined methodology.

RESULTS: 151 documents related to current cancer CPGs published by 15 institutions were identified. These were of heterogeneous format and quality. Only 48 documents, provided by two institutions, explicitly translated the guideline recommendations for laypersons, whereas 67 referred to the CPG in general terms. Thirty-six documents were related to a CPG without referring specifically to its content. Three institutions had broadly documented their methodology; two had briefly stated who had been involved and how. For nine institutions, no information on methodology could be retrieved.

DISCUSSION (CONCLUSION): Patient guidelines translating current and evidence-based recommendations for consumers can be considered as relevant tools for CPG implementation and informed decision making. However, the methodological quality of patient guidelines in oncology seems to be poor. The implementation of clear quality criteria could facilitate international collaboration and content adaptation.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Consumers' and patients' representatives

S58– The role of patients, family and stakeholders in guideline development: Meta-ethnography of qualitative research on peer support in chronic disease

Mary J. Bell, MD (Presenter) (Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines for patients

BACKGROUND (INTRODUCTION): Patient-centered care necessitates engagement of consumers in: shaping the research agenda; critiquing scientific evidence; and knowledge transfer activities. Our strategy is to include consumers as full partners in peer review research teams. We are investigating the role of Peer Support (PS) for individuals with early inflammatory arthritis (IA) to augment current care. The data on PS have not been synthesized. We have partnered with the Cochrane Collaboration (CC), who is doing the meta-analysis of the quantitative literature on PS in chronic diseases (PSCD), and have been funded by CIHR to do a meta-ethnography of the qualitative data. Two consumers with IA are participating in the meta-ethnography.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To develop an understanding of the role of PSCD.
2. Create simple, evidence-based guidelines for patients and providers for this intervention.

METHODS: A search strategy and literature search on PSCD was performed. Abstracts were screened by two reviewers and relevant articles retrieved. Reviewers independently evaluated papers using a quality assessment tool and coded eligible papers. The meta-ethnography will be performed. Simple guidelines will be developed upon completion of the synthesis.

RESULTS: 19,199 abstracts across six chronic diseases (cancer, HIV, CVD, asthma, arthritis, and diabetes) were identified; 1317 abstracts were selected for full-length review. Forty-nine articles went on to quality assessment, of which 22 articles will be included in the meta-ethnography. The meta-ethnography will be completed June 2010. Simple guidelines will be produced in collaboration with CC.

DISCUSSION (CONCLUSION): The results of meta-ethnography and meta-analysis can be combined to create patient-centered guidelines on PSCD. Consumer involvement in the

meta-ethnography may be a powerful tool for knowledge transfer.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer

S59– A framework to improve guidelines for patients with multimorbidity

Cynthia Boyd, MD (Presenter) (Johns Hopkins, Towson, Maryland); Bruce Leff, MD (Johns Hopkins, Baltimore, Maryland); David Kent, MD (Tufts Medical Center, Boston, Massachusetts); Katrin Uhlig, MD (Tufts Medical Center, Boston, Massachusetts)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines for patients with multiple comorbidities

BACKGROUND (INTRODUCTION): Current guideline development approaches do not prompt guideline developers to routinely consider to what degree patients with relevant comorbidity benefit similarly from a particular therapy, and do not provide tools for adapting recommendations to the comorbid patient or for prioritizing the most important recommendations within a single disease, let alone between diseases.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how multimorbidity is relevant to guideline development and consumers.
2. Identify issues related to people with multimorbidity that should be considered in the development of a guideline.

METHODS: A collaborative team with expertise along the continuum of medical research–from study and clinical trial design to systematic review to guideline development–generated a list of issues relevant for addressing multimorbidity at each step of guideline development. An external expert panel provided feedback on these issues.

RESULTS: The issues relevant for addressing multimorbidity include the following examples, organized by guideline development processes:
- in topic selection, including relevant comorbid conditions when defining the population of interest;
- in work group processes, including guideline work group members and reviewers with expertise on the relevant comorbidity;
- in choosing outcomes and ranking their importance, incorporating values and judgments of patients with relevant comorbidity;
- in setting study criteria, explicitly choosing between the trade-offs of study designs with greater internal versus external validity;
- in searches, finding evidence on subgroups or interactions;
- in evidence appraisal, considering the time horizon relevant to persons with comorbid conditions;
- in quality appraisal, considering impact of comorbidity on quality of the evidence (in particular directness); and
- in formulation of recommendations, considering how the presence of comorbidity impacts on the balance of benefits and harms and the strength of a recommendation.

DISCUSSION (CONCLUSION): Future work of this grant focuses on developing a prioritized set of recommendations to prompt guideline developers to make guidelines more directly applicable to the patient with multimorbidity.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Health care policy analyst/policymaker
7. Medical providers and executives
8. Consumers' and patients' representatives

S60– Clinical practice guidelines production and its correlation with developmental status of countries: Analysis in Iberoamerican countries

Iñaki Gutiérrez-Ibarluzea, PhD (Presenter) (Osteba Basque Office for HTA, Vitoria-Gasteiz, Araba/ Basque Country, Spain); Mª Asun Navarro-Puerto, MD (Andalucian Health Service, Sevilla, Spain); Mª Eugenia Esandi, PhD (National Academy of Medicine, Buenos Aires, Buenos Aires, Argentina)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guidelines in developing countries

BACKGROUND (INTRODUCTION): Clinical practice guideline (CPG) production has been increasing in Iberoamerican countries. In some countries CPG production has been related to governmental and/or scientific societies' initiatives. Nevertheless, it has not been homogeneous in the Iberoamerican context. In fact, some countries have established initiatives and clearinghouses while others depend on nongovernmental initiatives.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To map and catalogue the CPGs produced in different Iberoamerican countries and its correlation with the gross domestic product of those countries.
2. To compare the characteristics of those CPGs and the sources where they are identified.

METHODS: We performed a systematic bibliographic and complementary hand-search in: EMBASE, Medline, Lilacs, and IME; CPG clearinghouses (NGC, GIN, Guiasalud), and potential producers. We included CPGs produced in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Portugal, and Spain that could be recovered in full-text format (period 1995-2005). Final CPGs were independently selected by two reviewers on the basis of CPG definition accepted by GIN.

RESULTS: 4236 pCPGs were identified: 1283 from international databases, 2910 from national databases, 443 from guidelines clearinghouses, and 600 from hand searching. Almost 1000 potential producers belonging to the macro, meso, and micro level of the health system were identified. They were located mainly in Spain (417), in Argentina (368), and in Brazil (214). Among all pCPGs that were retrieved in international databases, 348 out of 1283 were finally considered CPGs. They were mostly produced in Spain (189), followed by Brazil (73), Argentina (26), Mexico (23), and Portugal (20). The relation between pCPGs and final considered CPGs when applying selection criteria in Medline, EMBASE, and Lilacs was 39%, 48%, and 8%, respectively.

DISCUSSION (CONCLUSION): Iberoamerican countries' production of CPGs is distributed among different sources of information. Although existing platforms or clearinghouses have been put in place, such as Guiasalud in Spain, there is still a need for building capacities in other countries and considering a unique CPG clearinghouse in Spanish.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Medical providers and executives
9. Allied health professionals
10. Nurses

S61– Transnational collaboration in developing ADAPTE clinical guidelines and use of GRADE when making recommendations: Experiences from Costa Rica, Panama and Guatemala

Mario G. Tristan, MD (Presenter) (IHCAI Foundation-Central America Cochrane Branch, San Jose, Costa Rica); Itzel Thomas, MD (Caja De Seguro Soical De Panama, Panama, Panama); Anggie Ramirez, MD (Caja Costarricense De Seguro Social, San Jose, Costa Rica); Arturo Salazar, MD (IHCAI Foundation-Central America Cochrane Branch, San Jose, Costa Rica); Ricardo Correa, MD (Instituto Gorgas de Estudios de Salud, Panama, Panama); Plinio Dardon Dardon, MD (Instituto Guatelmateco de Seguridad Social, Guatemala, Guatemala)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines in developing countries
BACKGROUND (INTRODUCTION): In 2002 Costa Rica implemented the Clinical Guidelines National Program. The main focus was on primary care topics. The methodological manual and 37 Clinical Practice Guidelines for primary care were published in 2005.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how regional collaborative guidelines development programs enhance the guidelines quality and resources utilization in LMIC.
2. Understand how the ADAPTE initiative contributes to promote local ownership and allows benefit from evidence relevance to local needs.
3. To break the myth that GRADE method is not applicable in LMIC and by the contrary is a useful tool for improving the knowledge base of the team and target users.
4. Understand that now that the development and implementation of clinical guidelines are not separate from each other.

METHODS: In 2002 Costa Rica's guidelines method was actually an adaptation of selected guidelines. The selection criteria was based in the traditional and international known guidelines quality and quality assessment using the AGREE. The program was extended to Guatemala in 2005 and Panama in 2008. In 2009 Costa Rica and Panama joined the ADAPTE initiative. The ADAPTE tool kit was translated into Spanish according to the AGREE translations guideline. In 2009 a new guidelines development adaptation manual was written according to new inputs: the ADAPTE tools and the GRADE method. New validation sections used the Delphi modified version and the GRADE grid and the implementation plan. Prioritization guideline manual was prepared. All instruments have been validated.

RESULTS: Three well-trained multidisciplinary teams (average size 45 professionals each). Panama and Costa Rica joined the ADAPTE. Panama selected diabetes 2 and hypertension topics based on the country burden of disease, both adapted from the Costa Rica guidelines. The new guidelines follow the new guidelines development and adaptation guide. These two guidelines use the GRADE method.

DISCUSSION (CONCLUSION): It is realized that at the beginning the focus was mainly on development of valid clinical guidelines. The implementation is no less important. There are many myths about using the GRADE method in LMIC; in this case, it has been useful for improving the knowledge base of the team, and also it has been easier for the clinicians and patients for understanding the substantial evidence.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Health care policy analyst/policymaker

S62– Cost-effectiveness of aromatase inhibitors versus tamoxifen in postmenopausal women with early breast cancer positive for hormonal receptors

Oscar Andrés Gamboa Garay, MD (Instituto Nacional de Cancerología de Colombia, Bogotá, Colombia); Sandra Díaz, MD (Instituto Nacional de Cancerología, Bogotá, Colombia); Oscar Garcia, MD (Instituto Nacional de Cancerología de Colombia, Bogotá, Colombia); Fernando Perry, MD (Instituto Nacional de Cancerología de Colombia, Bogotá,

Colombia); Mario Garcia, PhD (Presenter) (Universidad Nacional de Colombia, Bogotá, Colombia); Liliana Chicaiza, PhD (Universidad Nacional de Colombia, Bogotá, Colombia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Incorporating resources/cost considerations into guidelines
BACKGROUND (INTRODUCTION): The adjuvant treatment for breast cancer used to be tamoxifen, until the recent appearance of aromatase inhibitors, that have proved to improve the disease-free survival but not the global survival. The purpose of this study is to evaluate the cost-effectiveness of the new aromatase inhibitors available in a developing country, as is the Colombian case.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Comprehend how to incorporate the economic evaluation in the generation of recommendations for clinical practice guidelines.
2. Identify the methods used to prioritize economic questions in the development of a clinical practice guideline.
METHODS: A Markov model comprising the natural history of early breast cancer was built. The following strategies were evaluated: tamoxifen, anastrazole, or letrozole for five years; anastrazole or exemestane after receiving two or three years of tamoxifen; and letrozole for five years after receiving five years of tamoxifen. Disease-free life-years gained (df-LYG) were the outcome used to measure effectiveness. Only direct costs to the health system were included. Incremental cost-effectiveness ratios (ICER) were calculated as well as sensitivity analyses, and a 3% discount was included. A strategy was considered cost-effective if the cost per df-LYG was under COL$7,521.363 (GDP per capita for Colombia in 2007).
RESULTS: When compared to tamoxifen, the use of aromatase inhibitors for every woman with early breast cancer with positive hormonal receptors produces a cost per df-LYG range between COL$12,440.921 and COL$79,355.466. In patients with increased risk factors (positive nodes or a tumor size over 2 cm) cost per df-LYG ranges between COL$8,292.039 and COL$51,602.511. According to the established threshold, aromatase inhibitors can be cost-effective in Colombia for women with early breast cancer and risk factors for relapse.
DISCUSSION (CONCLUSION): From the economic perspective, we recommend the country to continue to use tamoxifen and to use aromatase inhibitors in patients with increased risk for relapse.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Developer of guideline-based products
4. Health care policy analyst/policymaker
5. Health insurance payers and purchasers
6. Consumers' and patients' representatives

S63– Incorporating cost effectiveness into guidelines using GRADE-like evidence profiles
Stefanie Reken, MS (Presenter) (National Institute for Health & Clinical Excellence, London, England, United Kingdom); Francis J. Ruiz, MSc (National Institute for Health & Clinical Excellence, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Incorporating resources/cost considerations into guidelines
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) commissions guidelines on the appropriate treatment and care of people with specific conditions within the NHS. The Institute encourages developers to use GRADE profiles to assess and present the evidence. NICE guideline recommendations need to be supported by clinical and cost effectiveness. While the adapted GRADE format can capture economic data collected alongside a trial, it is not suitable for evidence derived from results of decision models. Consequently, NICE developed an "Economic Profile" to present modeled evidence. However, there are situations when using these profiles can be challenging. This is illustrated using a guideline example.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how health economic evidence can differ from clinical evidence.
2. Learn how the GRADE concept has been adapted to consider cost-effectiveness evidence.
3. Understand when the NICE economic profile can be used to effectively capture incremental cost-effectiveness data.
4. Critically discuss the advantages and disadvantages of presenting GRADE tables and NICE economic profiles for decision making.
METHODS: Application of the NICE economic profile in a guideline on pharmacological therapies for neuropathic pain. Calculation of pairwise incremental cost-effectiveness ratios (ICERs) from information presented in a relevant health technology assessment (HTA) report. Completion of NICE economic profiles alongside the GRADE clinical evidence tables. Examination of the usefulness of the NICE economic profile when a single economic analysis relates to several GRADE profiles.
RESULTS: GRADE tables and the NICE economic profile are designed to capture pairwise comparisons. The HTA report used in the guideline correctly performed an incremental analysis of all relevant comparators for which there were data. As anticipated, we found that the economic profile could not capture the totality of the economic evidence without becoming unwieldy and difficult to read.
DISCUSSION (CONCLUSION): The NICE economic profile approach was not used for this guideline due to concerns that presenting pairwise cost-effectiveness ratios when other relevant treatment options are available could be misleading. We will explore the advantages and disadvantages of

using GRADE-type profiles to capture both clinical- and cost-effectiveness evidence.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker

S64– A new approach to advice for guideline developers

Kay C. Currie, MPH (Presenter) (NHMRC's National Institute of Clinical Studies, Hampton, Victoria, Australia); Geraint R. Duggan (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Heather Buchan (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Emma Tavender (EPOC, Melbourne, Victoria, Australia); Catherine Marshall (Independent Guideline Advisor & Health Consultant, Waipukurau, New Zealand); Tari Turner (National Trauma Research Institute, Melbourne, Victoria, Australia); Marie Misso (Australasian Cochrane Centre, Clayton, Victoria, Australia); Tanyth de Gooyer (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Catherine King (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): Manuals for evidence-based clinical practice guideline development have been written by many national bodies involved in guidelines outlining the requisites of best practice. These have escalated in complexity and volume as the methodologies of systematic literature review and appraisal, guideline development, and tools such as AGREE and ADAPTE have sought to improve the quality of clinical practice guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify new methods of providing advice.
2. Test formats for the provision of advice to guideline developers.

METHODS: The basic steps in guideline development are rarely in dispute, but the application of these principles is often limited by the resources available. More controversial is the how-to and identification of which elements are essential to produce a "good" clinical practice guideline. There is little agreement on what is a good guideline, with differences often dependent on perspective, for example between the methodologist and the clinician end user.
RESULTS: The National Health and Medical Research Council (NHMRC), an established leader in the development of guideline advice with the production of a series of manuals

covering the full breadth of guideline development, is now seeking to review and update its advice. The National Institute of Clinical Studies, an institute of the NHMRC, has commenced this task by building on existing international resources where applicable, and by developing a new format. It is an explicit user-friendly guide that will use electronic formats to provide the amount and level of information required by guideline developers.
DISCUSSION (CONCLUSION): This presentation will describe the processes involved in developing these requirements and the outcomes of this novel approach to providing advice to guideline developers.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S65– Cancer survivorship plan in the Netherlands: A guideline for professionals in oncology

Yvonne Snel, PhD (Presenter) (Association of Comprehensive Cancer Centres, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): Due to the immense increase in people living with cancer in the forthcoming years, the shortage of health care and dysfunction of the follow-up system is expected in the Netherlands. The Ministry, medical oncologists, health-care professionals, and cancer patients emphasize the lack of evidence for the present follow-up strategies in detecting new cancer manifestations. At the same time, the follow-up strategies are inadequate in signalizing, guidance, and treatment of the side effects of cancer and its treatments.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Develop an evidence-based guideline on survivorship care.
2. Using an interactive method, named Open Space, to investigate the perspectives of cancer patients.

METHODS: We formed multidisciplinary working groups representing medical oncology, surgery, radiotherapy, general practitioners, nursing, psychology, and rehabilitation. The principles of the cancer survivorship care in the USA and elsewhere were studied. The evidence for adequate aftercare for

cancer survivors was investigated by the general method for evidence-based guidelines. In a conference the perspectives of cancer patients regarding aftercare have been investigated by the Open Space method.

RESULTS: An evidence-based guideline for cancer survivorship care was developed. This includes important recommendations for the duration of the aftercare period (reconsideration of aftercare one year after cancer treatment), the method of detecting cancer manifestations, and providing an individual cancer survivorship care plan for every patient. These recommendations for cancer survivorship care are completed with a format of a cancer survivorship care plan, instructions for patient education, and a checklist for implementing the recommendations in tumor-specific guidelines.

DISCUSSION (CONCLUSION): The guidelines promote the efficiency and quality of cancer survivorship care in a time of rapidly increasing needs for cancer care. By this, unnecessary medicalization is prevented and self management, recovery, and quality of life of cancer survivors are promoted.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policymaker
8. Health insurance payers and purchasers
9. Medical providers and executives
10. Allied health professionals
11. Consumers' and patients' representatives
12. Nurses

S66– Clinical guidelines development in Kazakhstan Republic according to modern requirement

Laura Halikovna Kozhageldieva, MBA (Healthcare Development Institute, Astana, Kazakhstan);
Lyazzat Kosherbayeva (Presenter) (Healthcare Development Institute, Astana, Kazakhstan);
Evgeniya Pak (Healthcare Development Institute, Astana, Kazakhstan);
Kulsara Rustambekovna Rustemova (Healthcare Development Institute, Astana, Kazakhstan)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): The quality of medical care in Kazakhstan does not meet the international standards, due to the absence of a modern system of accreditation of health-care organizations, limited use of clinical guidelines, practical use of evidence-based medicine principles and health technology assessment, and also the absence of an administration system of quality in health-care organizations. The Ministry of Health, together with the Healthcare Development Institute and other organizations, developed and approved

nearly 200 clinical guidelines. Nowadays, this process is based on the stable methodological procedures and modern international experience, as the involvement of professional associations for consultation and research. Currently it is expected to modernize and expand the range of this work, to involve in professional associations, to strengthen the capacity of MoH to ensure the quality.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Strengthening the capacity of Kazakhstan health sector in the clinical guidelines development based on international standards.
2. Improvement of 50 clinical guidelines to the main five specialties.

METHODS: The main two methods are planning to use:
1. expert board approval; 2. AGREE instrument use.

RESULTS: The increase of the medical care quality through the development of a single data base system for timely clinical guidelines improvement.

DISCUSSION (CONCLUSION): As world practice shows, the development of clinical guidelines is a serious problem. The solution of this problem demands the regulatory and institutional changes as well as changes to the nature of the entire system of existing relationships and attitudes of medical personnel. The implementation of the tasks will destroy the purely administrative practice and help to establish a comprehensive quality management system aimed at improving health care, efficient use of budgetary resources, and increasing the responsibility of medical professionals for their services.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Allied health professionals

S67– Diliguide: A web-based tool for guideline development and implementation

Danielle Sent, PhD (Presenter) (Dutch Institute for Healthcare Improvement, Utrecht, Netherlands);
Kitty Rosenbrand, MD (Dutch Institute for Healthcare Improvement, Utrecht, Netherlands);
Ilse Raats, PhD (Dutch Institute for Healthcare Improvement, Utrecht, Netherlands);
Judith van der Vloed, MSc (Dutch Institute for Healthcare Improvement, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): During the guideline development process adequate assistance of the guideline development group for writing, commenting, and editing text is absolutely necessary but time consuming. Also, public consultation on the draft guideline is often an inefficient and chaotic process and publication of paper guidelines is expensive and no longer sufficient to accomplish good implementation. Since web-based applications are now commonly used, we decided to develop a web-based tool, called "Diliguide,"

for assistance during the guideline development process and electronic publication of the final guidelines.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Evaluation of a web-based application for assisting guideline development groups.
2. Improve accessibility and implementation of guidelines.

METHODS: Diliguide supports guideline development groups by facilitating exchanging documents; defining key questions; and adding, editing, and commenting draft guideline texts using the Dutch methodology for evidence-based guideline development. After endorsement, Diliguide also publishes the guideline in such a way that conclusions and recommendations, etc., easily can be found by health-care professionals and/or patients. We evaluated Diliguide in two separate pilot studies. The first pilot evaluated Diliguide while developing the guideline for obstructive sleep apnea syndrome (children). In a second pilot, we developed a patient version of the guideline for rheumatoid arthritis in collaboration with the patient association.

RESULTS: Diliguide proved to be a useful tool to assist the guideline development process. Publishing the guideline in a modular format is an important first step in the improvement of guideline implementation. Comments by the guideline working group and patient association could easily be processed and were less time consuming. With Diliguide, guidelines can be constantly improved to create so-called living guidelines.

DISCUSSION (CONCLUSION): We experienced that, although all guidelines should have the same structure, this assumption is an illusion. Authors need a very strict format without the possibility of avoiding this; otherwise they will create yet another chaotic structure.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Consumers' and patients' representatives

S68– Ethics and guidelines, ethics in guidelines? Ethical chapters in CPGs on dilemmas in work and health

Arnolda Petra Nauta, PhD (Presenter) (The Netherlands Society of Occupational Medicine, Delft, Netherlands); Inge E. den Besten, MSc (University Medical Centre Rotterdam, Rotterdam, Netherlands); André Weel, PhD (The Netherlands Society of Occupational Medicine, Utrecht, Netherlands); Jim Faas, MD (UWV, Amsterdam, Netherlands); Kerst Zwart, MSc (Welder, Amsterdam, Netherlands); Medard Hilhorst, PhD (University Medical Centre Rotterdam, Rotterdam, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): From a moral perspective, producing CPGs and working according to these guidelines is good. Offering the best available treatment adds to well-being of patients. EBM consists of best research evidence, patient values, and clinical expertise. Recently, patients' perspectives have come into focus (shared decision making). Other arguments may arise from social, cultural, political, economic, and ethical considerations. Especially in the area of 'work and health,' these considerations play an important role. This poses dilemmas that ask for moral deliberation. Most clinical guidelines do not contain an ethical chapter and cannot guide us here. An approach for incorporation of ethical considerations into practice was developed and tested. We studied the feasibility and acceptability of an ethical chapter within a medical practice guideline.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Become aware of ethical dilemmas that exist in the area of work and health.
2. Understand how a moral framework and value-based chapter can give guidance to professionals in health care.
3. Understand how to compose a value-based chapter in guidelines.
4. Understand how to coach developers of guidelines to write an ethical chapter.

METHODS: We discussed dilemmas in practice with patients and professionals. Two value-based chapters for multidisciplinary CPGs (depression and breast cancer) were written by multidisciplinary groups and tested in practice. A moral framework was composed for future guideline development and tested by developers.

RESULTS: Sick workers frequently experience tough dilemmas; e.g., whether to inform their occupational health physician. They expect professionals to improve their decision making and collaboration. Professionals are reluctant to share information and exchange the nonmedical views on which they, often implicitly, base their decisions. The moral framework and value-based chapters intend to give professionals guidance in ethical dilemmas. They should raise awareness, help to recognize ethically sensitive situations, and support moral deliberation. We will present the results of the tests we carried out for users and developers.

DISCUSSION (CONCLUSION): It is feasible and accepted to write ethical chapters regarding work and health in guidelines. They should be an integral part of guideline development.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policymaker
8. Medical providers and executives
9. Allied health professionals
10. Consumers' and patients' representatives
11. Nurses

S69– "Community members brought real life experience": An evaluation of lay people's contribution to public health guidelines

Jane Cowl, MSc (Presenter) (National Institute for Health & Clinical Excellence, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) systematically involves patients and the public in the development of its guidelines. To date there has been some empirical evaluation of the contribution of patients to clinical guideline development, but little evaluation of lay people's impact on the development of public health guidelines.
OBJECTIVES: To compare the views and experiences of lay people, and those of public health professionals involved in NICE's public health guideline development work, and to examine the extent to which lay people contribute, and add value, to the process.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how lay people can contribute to public health guidelines.
2. Assess a method for evaluating the impact of lay involvement.

METHODS: A semi-structured questionnaire was used, comprising quantitative and qualitative questions and covering themes such as: group working, methods and process, support and training, value of lay members' contributions, and outcomes. The participants were the lay members and chairs of the first 7 NICE groups that produced public health guidelines. There were 28 eligible participants.
RESULTS: The overall response rate was 66%. The study's findings demonstrated a positive response, from both the lay members and chairs, to both the principle and practical application of lay involvement in developing public health guidelines. The study also showed the added value that lay people can bring, through expertise derived from personal and community experience of public health issues. Most lay members were positive about their contributions to the group, and all chairs rated their value as "very high" or "high."
DISCUSSION (CONCLUSION): As well as identifying the successful aspects of lay involvement in developing public health guidelines, the findings also indicate areas for development to more effectively incorporate the views of specific target population groups.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policymaker
8. Medical providers and executives
9. Allied health professionals
10. Consumers' and patients' representatives
11. Nurses

S70– Consumer involvement in guideline development: Early-stage chronic kidney disease

Allison Tong, PhD (Presenter) (University of Sydney, Sydney, New South Wales, Australia); Martin Howell, PhD (The Children's Hospital at Westmead, Sydney, New South Wales, Australia); Pamela Lopez-Vargas, MPH (The Children's Hospital at Westmead, Sydney, New South Wales, Australia); Jonathan C. Craig, PhD (The Children's Hospital at Westmead, Sydney, New South Wales, Australia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): Consumer input in the selection of guideline topics and outcomes can help to ensure that guidelines address their preferences and needs. This study aimed to elicit topics and outcomes important to consumers for inclusion into clinical practice guidelines being developed on early-stage chronic kidney disease (CKD).
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess structured peer-facilitated workshops as an approach to involving consumers in selecting guideline topics and outcomes.
2. Elicit topics and outcomes important to consumers to help ensure that guidelines are more consumer-focused.

METHODS: Two consumer advisory panels were convened, one each for early-stage and late-stage CKD. Each participated in two structured peer-facilitated workshops. The participants completed five exercises on: 1) perspectives on living with early CKD, 2) the benefits and harms of tests and treatments, 3) selection of guideline topics, 4) outcomes important to consumers when evaluating a test and treatment, and 5) health-related issues. For each exercise, participants formed small groups and facilitated their own discussion, recorded their responses on a flipchart, and presented them to the wider group. The workshop facilitator moderated the wider group discussion. The workshop transcripts and flipcharts were analyzed to identify topics and outcomes participants thought were important to include in guidelines for early-stage CKD.
RESULTS: Participants suggested six topics: patient education, monitoring of CKD, nutrition and exercise, medication side effects and interactions, emotional and financial support for patients and caretakers, and health-care communication. Five test outcomes suggested by participants included: impact on lifestyle, long-term effects of dyes and radiation, accuracy and speed, level of discomfort, and risk of physical harm. Treatment outcomes important to participants included survival, blood pressure, appearance, kidney function, ability to

breathe, emotional impact, anemia, headaches, and bone density.

DISCUSSION (CONCLUSION): Structured peer-facilitated workshops are a feasible and effective approach to enable participants to articulate topics, and outcomes they perceive should be included in clinical practice guidelines for early-stage CKD.

TARGET AUDIENCE(S):

1. Guideline developer
2. Consumers' and patients' representatives

S71– Involving decision makers in guidelines research: A case study

Martin H. Reed, MD (Presenter) (Winnipeg, Manitoba, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): The importance of involving decision makers at the government and health services management levels is frequently discussed at GIN meetings. However, it is recognized that this is not always easy to accomplish. The purpose of this presentation is to describe a project which is actively involving decision makers.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand the importance of involving decision makers in guideline development.
2. Describe methods of involving decision makers in guideline research.

METHODS: We have recently applied for a grant to support a multicenter project to evaluate the different degrees of compliance with diagnostic imaging guidelines incorporated into a computerized order entry system. This study is intended to quantify these differences at the different sites and to evaluate the reasons for the differences. The study will incorporate data from three projects being undertaken in three separate provinces: Manitoba, Nova Scotia, and Saskatchewan. Each project has provincial government support. The grant we are applying for is the Partnerships for Health System Improvement (PHSI) Program of the Canadian Institutes of Health Research. This program is designed to support projects involving teams of researchers and decision makers.

RESULTS: In order to undertake the project, we have obtained permission from the three provinces to use their data. However, we wished to involve the decision makers from the provinces more actively in this project. We invited each province to be a co-investigator. To do this each province has nominated a senior individual in its health department to that position. These representatives have all provided input to the grant application, and each is a member of the Research Team, which will meet regularly to review the data as it is acquired and will be involved in the dissemination of the results to all interested parties.

DISCUSSION (CONCLUSION): It is possible to involve decision makers in guideline research.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Health care policy analyst/policymaker

S72– Lessons for optimization of patient participation in guideline development: An action research approach

Alida van der Ham, MS (Presenter) (VU University Amsterdam, Amsterdam, Netherlands); Jacqueline Broerse, PhD (VU University Amsterdam, Amsterdam, Netherlands); Saskia van Veen, MSc (VU University Amsterdam, Amsterdam, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): Active patient participation in clinical guideline development is an emerging phenomenon. Arguments for patient participation are enhancement of legitimacy of decision making and increased quality and relevance of the results. However, patient participation in guideline development is methodologically still in an early stage of development and systematic reflections and scientific publications on this topic are limited. An inventory study, including a literature study and 46 semi-structured interviews, was undertaken. No consensus was found on the most effective form of patient participation in guideline development, but various recommendations were formulated, largely founded upon the Dutch situation. The goal of this study is to gain further insight in methods and conditions that enhance the effectiveness of patient participation.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Gain insight in methods and conditions that enhance effective patient participation in guideline development.
2. Understand how lessons learned can be incorporated in guideline development in order to optimize patient participation.

METHODS: An action research was conducted in the Netherlands in which the development of four guidelines was followed through participatory observation. The four case studies experiment with innovative methods for patient participation and are selected to represent a diversity of guideline topics. To assess the effectiveness of patient participation in a systematic way, an evaluation framework was formulated based on the findings from the inventory study, consisting of both process and outcome criteria.

RESULTS: The results show that final decisions in the guideline development process are often taken outside plenary meetings by a selective group of professionals, which causes a lack of transparency in decision making and brings patient participation to the level of consultation. Identifiable integration of patients' perspectives remains problematic.

DISCUSSION (CONCLUSION): Structural support and possibilities for adapting the process to the needs and capacity

of patients and patient organizations are crucial for effective patient participation. Innovative approaches and adaptations to the guideline development process can enhance optimization of patient participation.

TARGET AUDIENCE(S):
1. Academic researchers
2. Guideline developer
3. Guideline implementer
4. Health care policy analyst/policymaker
5. Allied health professionals
6. Consumers' and patients' representatives

S73– Patient involvement in Germany: How and when?

Corinna Schaefer (Presenter) (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Monika Nothacker, PhD (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Langer Thomas (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Susann Conrad (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Fishman Liat (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Berit Meyerrose, PhD (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Beate Weikert (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Guenter Ollenschlaeger, PhD (German Agency for Quality in Medicine (ÄZQ), Berlin, Germany)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): Key questions and recommendations in evidence-based guidelines should not only be based upon the current medical knowledge but should also respect patients' needs and preferences. Patient involvement in clinical guidelines guarantees the consideration of their points of view. It also is regarded as a quality criterion for evidence-based clinical guidelines according to AGREE and to the German instrument for guideline assessment (DELBI).
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand to which extent patient involvement is practiced in Germany.
2. Assess methods and different types of patient involvement in Germany.

METHODS: The actual evidence-based guidelines in Germany which are relevant for ambulatory care have been assessed relating to consideration and appraisal of patient needs. In cases of direct or indirect patient involvement, we checked whether it was done according to a defined methodology.
RESULTS: 121 evidence-based guidelines have been assessed. 31 of them had directly involved patients into the development process; in 9 guidelines they had been involved indirectly by peer review or consultation. 81 had been developed without patient representatives. Information on how pa-

tients had been nominated was available in 22 guidelines. A defined methodology of patient or public involvement was documented only in 6 guidelines, 5 of them being part of the German National Disease Management Guidelines Program. (Updated results will be presented in August 2010.)
DISCUSSION (CONCLUSION): Patients have been involved in the guideline development process in less than 35%. In less than 5% patient involvement followed a defined methodology. Being an important implementation tool, patient involvement should become a standard in guideline development. In terms of transparency, nomination and involvement of patient representatives should be based upon a defined methodology. In Germany, a methodology for patient involvement is found only within national programs. Adaptation of this methodology by other guideline developers and cooperation with medical societies may enhance patient involvement.
TARGET AUDIENCE(S):
1. Guideline developer
2. Developer of guideline-based products
3. Consumers' and patients' representatives

S74– Patient perspectives in clinical practice guideline (CPG): Participation and qualitative research

Petra Diaz del Campo (Health Technology Assessment Unit, Madrid, Spain); Javier Gracia (Presenter) (Health Technology Assessment Unit, Madrid, Spain); Raquel Luengo (Madrid, Spain); Beatriz Nieto (Madrid, Spain); Juan Antonio Blasco (Health Technology Assessment Unit, Madrid, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): A clinical practice guideline should take into account patient perspective of the disease concerned. However, questions arise about qualitative research and suitability of patient participation, when and how it should be done, and its impact on the guideline. We are working within a national program in order to answer these questions. The purpose is to present our experience of taking into consideration patient views and preferences in the development of CPGs to help other guideline groups achieve an effective methodology.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods to take into account patient views and preferences in the development of CPGs.
2. Show how qualitative research can be done to develop a high-quality CPG.
METHODS: Primary qualitative research was developed to identify issues relevant to patients by means of focus groups and in-depth interviews conducted with the patients. As for the health professionals, in-depth interviews and 'participant observation' techniques were used. Also, patients and patients' representatives participated in the development process. Sec-

ondary qualitative research was performed synthesizing evidence from qualitative studies. Since locating and finding qualitative evidence remains a challenge, main databases as well as other more specific electronic databases were reviewed.

RESULTS: Four CPGs (anxiety, insomnia, autism, and stroke) were developed and followed the described methodology. Primary research has gotten information on the understanding of the health-disease process and the social context. We also collected personal experiences, caregiver-patient relationships, behaviors, and attitudes as variables related to the seeking of medical help. Qualitative evidence facilitated knowledge about the disease stages and communication problems, as well as patient compliance. Participation was successful in defining CPG key questions and developing patient information.

DISCUSSION (CONCLUSION): Incorporating patient perspectives in CPG may help understand the health-disease process, improve the implementation of recommendations, and reach a higher compliance. Likewise, a better answer to patients' necessities is achieved and patients are more satisfied with the health-care system.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Allied health professionals
4. Consumers' and patients' representatives

S75– Patients initiate and lead the Multidisciplinary Guideline for Orofacial Pain

Marianne van den Berg, PhD (Presenter) (Dutch Headache Patient Organisation, Bunde, Netherlands); Jan Helder, PhD (Dutch Headache Patient Organisation, Utrecht, Netherlands); Ella Lever (Dutch Headache Patient Organisation, Arnhem, Netherlands); Rianne De Wit, PhD (Maastricht University, Maastricht, Netherlands); Arnolda P. Nauta, PhD (The Netherlands Society of Occupational Medicine, Delft, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): Patients with orofacial pain are usually seen by several specialists. The average time between the first medical consult and the diagnosis is more than one year. An adequate consultation between the physician and various specialists is not common use. This makes that patients get lost in the maze of medical and paramedical attendants.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Become aware that for patients the process of care and collaboration is very important.
2. Understand that patients need to be well informed in order to realize shared decision making.
3. Understand that it is important to make arrangements for who is in charge of the medical supervision.

METHODS: The Dutch Headache Patient Association initiated the development of a multidisciplinary clinical practice guideline (CPG) for orofacial pain. A working group consisting of representatives of 14 professional groups together with a delegation of patients was set up. This group is now in charge of developing this CPG.

RESULTS: The process of development will be systematically evaluated during the next months.

Some preliminary recommendations based on our experiences are:
1. Professionals of all the disciplines concerned have to speak the same simple language, in order to communicate clearly with each other and with the patient.
2. Professionals of all disciplines should know what the other professionals actually can do for the patient with orofacial pain in terms of diagnostics and treatment.
3. Cooperation between all professionals must improve, especially between physicians and dentists.
4. The physician or the dentist should be charged with the medical supervision of the total process of care in order to prevent that the patient feels entangled.
5. A special version of the CPG for patients should be made so that the doctor can confer with a well-informed patient (shared decision making).

DISCUSSION (CONCLUSION): Initiating and leading the development of a CPG by patients shows that the process of care and collaboration deserves full attention. This project is funded by the Netherlands Organisation for Health Research and Development (ZonMw).

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Health care policy analyst/policymaker
4. Medical providers and executives
5. Allied health professionals
6. Consumers' and patients' representatives

S76– Stakeholder engagement in the scoping phase of clinical guideline development: Challenges and solutions

Nichole Taske, PhD (Presenter) (NICE, London, England, United Kingdom); Claire Turner, BSc (NICE, London, England, United Kingdom); Amanda Killoran, PhD (NICE, London, England, United Kingdom); Andrew Gyton, BA (NICE, London, England, United Kingdom); Michael Heath, BSc (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) encourages stakeholders to get involved in the development of our guidance at all stages. Stakeholders can include national organiza-

tions that represent patients and caretakers (or local organizations if there are no relevant national patient and caretaker organizations), health-care professionals, the National Health Service (NHS), organizations that fund or carry out research, and the health care industry. During the scoping phase of guideline development, registered stakeholders are invited to comment on the draft scope (what the guideline will and will not cover) at two stages: before public consultation on the draft scope through attendance at a scoping workshop, and again during the 4-week public consultation stage.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To review stakeholder involvement during the scoping phase of all clinical guidelines that commenced during 2009.
2. To identify opportunities for further facilitating active stakeholder engagement during guideline development.

METHODS: We have used a mixed-methods approach: we have undertaken an audit of stakeholder involvement; sought the views of stakeholders through questionnaires and brief one-to-one interviews; and examined stakeholder comments submitted during consultation through a thematic analysis.

RESULTS: Across the 18 clinical guidelines that went through the scoping process during 2009, an average of 112 (range 56-187) stakeholders registered an interest in each guideline. Of registered stakeholders, an average of 30.6% (range 12.4%-50.6%) either attends the pre-consultation scoping workshop or submits written comments during consultation on the draft scope. The predominant stakeholder organization type at registration stage is NHS organizations, whereas organizations representing health-care professionals are the predominant stakeholder organization type at the scoping workshop. Organizations representing the interests of patients and caretakers are comparatively underrepresented at all stages of the scoping process.

DISCUSSION (CONCLUSION): Proposed revisions to the scoping process will be discussed in light of stakeholder views and findings from the audit and thematic analysis.

TARGET AUDIENCE(S):
1. Guideline developer
2. Consumers' and patients' representatives

S77– Standardization of patient participation in guideline development

Ilse Raats, PhD (Presenter) (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Martine M. Versluijs, MSc (Fed of Patients and Consumer Organisations NPCF, Utrecht, Netherlands); Haske van Veenendaal, MSc (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands); Jako Burgers, MD (Dutch Institute for Healthcare Improvement CBO, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development

BACKGROUND (INTRODUCTION): Patients are becoming increasingly involved in the development of clinical guidelines. However, the methods used for patient participation are diverse and not standardized.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand patient representatives' needs and experiences concerning guideline development.
2. Identify critical steps for patient participation in guideline development.
3. Identify different methods for facilitating patient participation.
4. Understand how to standardize patient participation.

METHODS: We explored patient representatives' experiences and needs concerning participation in guideline development with a questionnaire. The results were used to develop and pilot test the following tools to support patient participation in guideline development:
1. A model for patient participation in clinical guideline development. A panel of guideline developers and patient representatives identified the most important phases for patient participation in guideline development by discussion until they reached consensus.
2. A manual and training course for patient representatives, including a questionnaire to evaluate the training course.
3. A manual for guideline developers.

We sought acceptance and commitment for standardized patient participation in guideline development by asking leading guideline organizations and patient organizations to endorse the tools.

RESULTS: Nineteen patient representatives from guideline development groups filled in the questionnaire. In the pilot, thirty patients from recently started guideline development groups were trained in four sessions and received the manual. The evaluation showed that the provided support was highly appreciated and improved the patients' role in the working group. Twenty patient organizations and six guideline developing organizations in the Netherlands endorsed the tools to support patient participation in guideline development.

DISCUSSION (CONCLUSION): We standardized patient participation in guideline development in the Netherlands, by identifying critical steps, facilitating patient participation with tools for patient representatives and guideline developers, and by gaining support from patient organizations and guideline developers. Next step is to translate the tools in English and to validate them internationally.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Medical providers and executives
8. Allied health professionals
9. Consumers' and patients' representatives
10. Nurses

S78– Analysis of chronic respiratory disease guideline updates of the past 10 years

Liat Fishman, MD (Presenter) (German Agency for Quality in Medicine, Berlin, Germany); Susanne Weinbrenner, MD (German Agency for Quality in Medicine, Berlin, Germany); Günter Ollenschläger, MD (German Agency for Quality in Medicine, Berlin, Germany)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Updating guidelines
BACKGROUND (INTRODUCTION): Guideline developers must keep their guidelines up-to-date in order to ensure the validity of recommendations. This issue is increasingly being addressed in the guideline community, but more information is necessary regarding the choice of methods and the best way to assess the need for updating. In the context of implementing a monitoring process for the German National Disease Management Guidelines on Asthma and COPD and in order to gain a better understanding of guideline changes over time, we compiled information on methods and changes in updating of international asthma and COPD guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn about methods used by other organizations to update their guidelines.
2. Gain a better understanding of the impact of guideline updating on recommendations over time.

METHODS: We selected three asthma and COPD guidelines each and their respective updates from 2000 to the present. The following aspects were addressed in our analysis: 1) Updating methods, 2) Transparency of changes across updates, 3) Frequency of changes within different guideline topics, 4) Nature of changes, 5) Discrepancies across guidelines in above results.
RESULTS: 1) Systematic search methods were used by all organizations to identify literature relevant for updating. 2) Transparency in text and content changes varied across guidelines. 3) The highest update rate in asthma guidelines was on the topic pharmacotherapy, whereas in COPD guidelines updates were spread over more topics. 4) For both asthma and COPD pharmacotherapy there were proportionally fewer relevant changes (e.g., change of recommendation) per new reference in comparison to nonpharmacologic topics. 5) Changes were mostly congruent across guidelines.
DISCUSSION (CONCLUSION): Our analysis contributes to understanding the impact of guideline updates over a longer time period. Overall recommendations were relatively robust. For transparency reasons it is important for guideline organizations to explain the rationale for updating and the changes made in the updating process.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer

S79– The process and outcomes of reviews of the need to update NICE guidelines

Sue Latchem, RN (Presenter) (London, England, United Kingdom); Philip Alderson, MBBS (NICE, London, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Updating guidelines
BACKGROUND (INTRODUCTION): NICE guidelines are published with the expectation that they will be reviewed and updated as necessary. The NICE guidelines manual describes the process, frequency, and methods for updating. The process for updating guidelines involves reviewing the literature and obtaining expert opinion on the impact of new evidence on the status of existing recommendations. Recommendations to update clinical guidelines need to be set against the competing priorities of new guideline topics within a program of work with a finite capacity. It is important, therefore, to ensure a robust approach to informing decisions to update guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand NICE's approach to reviewing the need to update a guideline.
2. Understand the strengths and limitations of expert input into review decisions for updating guidelines.
3. Compare the outcomes of NICE's update decisions with other organizations' published updating rates.

METHODS: A narrative review will detail the approaches used to obtain expert input in decisions taken to date in relation to guideline updates. Numbers will be provided in relation to the outcome of decisions taken (e.g., full update, partial update, no update, withdraw). Comparisons will be drawn with other published updating rates. Case studies will highlight the challenges in utilizing expert opinion where appropriate.
RESULTS: The updating rate for NICE guidelines and comparison with other published rates will be presented. A summary of the different approaches to obtaining expert input will be provided as well as an assessment of the perceived problems with these approaches. The challenges that can be presented in utilizing these approaches will be discussed.
DISCUSSION (CONCLUSION): While literature review can be undertaken in a consistent way, it can be difficult to obtain consistent expert input in relation to evidence review and impact on recommendations. NICE's approach to reviewing the need to update clinical guidelines will be discussed and compared with others.
TARGET AUDIENCE(S):
1. Commissioners of NHS services
2. Clinical researcher
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Medical providers and executives

10. Allied health professionals
11. Consumers' and patients' representatives
12. Nurses

S80– Inventory of cancer guidelines: An approach for guideline dissemination, quality appraisal and information sharing

Melissa C. Brouwers, PhD (Presenter) (McMaster University, Hamilton, Ontario, Canada); Tom C. Oliver (McMaster University, Hamilton, Ontario, Canada); Ellen Rawski (McMaster University, Hamilton, Ontario, Canada); Kristina C. Cekan (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Guideline libraries
BACKGROUND (INTRODUCTION): The Inventory of Cancer Guidelines (ICG) is a resource composed of English-language cancer control practice guidelines (PGs) that are appraised using the international standard of guideline evaluation, the AGREE II Instrument. The intent is to evaluate guideline strengths and weaknesses and extent of duplication or gaps in the cancer guideline enterprise, and provide appraised guidelines in a publicly available searchable database.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Develop awareness of the cancer guidelines and resources available.
2. Create a conduit for Canadian guideline developers to communicate and share work ideas.
3. Provide validated AGREE II scores.
METHODS: To identify publicly available guidelines, a search of MEDLINE, EMBASE, PsychINFO, the CDSR, and CINHAL databases (OVID) was undertaken. The CMA Infobase, NGC, GIN databases, and websites of Canadian territorial and provincial cancer agencies or networks were also searched for cancer guidelines.

The sources were searched for English-language PGs released between 2003 and 2008 that related to the cancer control continuum. Guidelines were defined as documents that provided explicit advice or recommendations, included references, and were developed by a medical/health organization, professional society, government agency, or expert panel at the international, national, provincial, territorial, regional, or organizational level.
RESULTS: One hundred and thirty-one guideline groups produced a total of 651 cancer-control practice guidelines. Over 50 reviewers were recruited to rate quality of reporting using the AGREE II instrument. The following summarizes the overall mean and range scores for each of the AGREE II instrument domains; Scope and Purpose: 68% (0%-100%), Stakeholder Involvement: 43% (0%-97%), Rigor of Development: 50% (0%-98%), Clarity and Presentation: 72% (14%-100%), Applicability: 29% (0%-90%), Editorial Independence: 38% (0%-100%).

DISCUSSION (CONCLUSION): The ICG is an important initiative for the promotion of best evidence practices in the development and use of cancer guidelines. The goal is to reduce duplication of effort and contribute to local and international information sharing and collaboration.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives

S81– Occupational medicine guidelines mandated by states: Experience with state rule making and regulatory agencies

Christopher J. Wolfkiel (Presenter) (ACOEM, Elk Grove Village, Illinois); Julie Ording, MPH (ACOEM, Elk Grove Village, Illinois); Matthew Hughes, MD (University of Utah, Salt Lake City, Utah)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Guideline libraries
BACKGROUND (INTRODUCTION): Guidelines have been adopted by states over the last five years with major efforts in California, New York, and Texas to regulate treatment of injured workers. Distinct from disability guidelines (systems for defining temporary and permanent impairment and subsequent indemnity), treatment guidelines for workers' compensation are adopted generally for one of two reasons: curb overutilization that results from physician-defined usual and customary fee-for-service or underutilization from reduced access because of artificially low fees.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Lessons learned in states mandating guidelines in workers' compensation.
2. National guidelines interaction with local practices.
METHODS: ACOEM's experience with states' adoptions of Occupational Medicine Practice Guidelines is reviewed.
RESULTS: The American College of Occupational and Environmental Medicine (ACOEM) has developed evidence-based guidelines for over ten years that are the basis for treatment in several states, including California and New York. Workers' compensation laws, enacted in the early 20th century when medical options were fewer, generally allowed for unlimited treatment and wage replacement in exchange for workers' waiving the right to sue an employer. As treatment options expanded with few controls besides fee schedules, utilization and medical costs rose beyond the ability for traditional insur-

ance to remain profitable, and in California several carriers were bankrupted or withdrew from the market. Part of many WC reforms, treatment guidelines were mandated and were thrust into local debates between evidence-based medicine and local standards of care.

DISCUSSION (CONCLUSION): The quality evidence base for musculoskeletal injuries and diseases is often incomplete. Consensus recommendations, especially in back and chronic pain, are often required for completeness where evidence is scant. As such, market forces by practitioners and medical industries are exerted to maintain the status quo while regulators are forced to manage an effort that could be a microcosm for national health care reform.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Medical providers and executives

S82 – Communities of practice and information technologies: The perfect duo for optimal knowledge uptake

Lise Poissant, PhD (Presenter) (University of Montreal, Montreal, Quebec, Canada); Isabelle David, BSc (University of Montreal, Montreal, Québec, Canada)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): Communities of practice (CoP) are interesting structures to facilitate intra- and interdisciplinary collaborations necessary to accelerate the implementation of best practices. In parallel, emergent web-based functionalities such as blogs, virtual libraries, and discussion forums can support CoP activities and thus enhance best-practices uptake.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand how interdisciplinary and interorganizational communities of practice can be developed.
2. Examine the role and uptake of various web-based collaborative applications.
3. Examine the perceived benefits of communities of practice among health professionals.

METHODS: A mixed-methods approach was used. In-depth semi-structured interviews were conducted among rehabilitation health professionals engaged in an interdisciplinary and interorganizational stroke communities of practice. A literature review and a needs assessment was conducted to identify optimal web-based functionalities to be developed to support the CoP. Utilization of information technologies will be monitored.

RESULTS: Content analysis of transcribed interviews reveals how underlying processes of trust-building, communication, and knowledge exchange improve problem solving at the systems level, leading to improved continuity of care for patients. Access to static information (virtual library) is perceived as a more useful functionality than discussion forums or blogs.

DISCUSSION (CONCLUSION): Our study shows that information technologies are perceived as supportive but not necessary for knowledge exchange across health professionals. Communities of practice are effective means to accelerate knowledge exchange. Despite the availability of web-based application and innovative collaborative applications, health professionals highly value face-to-face meetings as a means to communicate and exchange on best practices.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Health care policy analyst/policymaker
5. Allied health professionals
6. Consumers' and patients' representatives
7. Nurses

S83 – Dissemination and implementation of low back pain guidelines: An integrated knowledge transfer approach

Donna K. Angus, MS (Presenter) (Alberta Innovates - Health Solutions, Edmonton, Alberta, Canada); Christa Harstall, MS (Institute of Health Economics, Edmonton, Alberta, Canada); Paul Taenzer, PhD (Alberta Health Services, Calgary, Alberta, Canada)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): The Alberta HTA Chronic Pain Ambassador Program developed clinical practice guidelines (CPG) for the treatment of low back pain. A detailed plan supports the dissemination and implementation (knowledge transfer) of the guidelines. The purpose of the knowledge transfer plan is to inform and positively influence the treatment of low back pain; that is, encourage and support adherence by primary care providers to the CPG.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand how a knowledge transfer plan for practice guidelines is constructed.
2. Understand the importance of an integrated knowledge transfer approach for guideline implementation.

METHODS: The plan includes the following.

1. Audience
   - Identify target audiences
   - Assess their state of knowledge
   - Identify likely barriers and facilitators to using guidelines
2. Content
   - Assess the content of the guidelines for implementability
   - Develop key messages for each audience

3. Strategy and Tactics
   • Determine what strategies will be used
   • Delivery mechanisms
   • Timing, responsibilities, and budget
4. Evaluation
   • How will the impact be measured

RESULTS: The knowledge transfer plan was approved by the program Advisory Committee in November 2008. The guidelines were published in March 2009 and dissemination and implementation activities in the plan are currently underway.

DISCUSSION (CONCLUSION): The success of the knowledge transfer plan rests on: (1) CPGs were developed in response to requests by key audiences; (2) target audiences and key stakeholders were involved in the development of the guidelines (i.e., integrated knowledge transfer); (3) the CPGs are of high quality; (4) the knowledge transfer plan itself was based on the best evidence on how best to support utilization of CPGs. A Steering Committee oversees the implementation and tracks progress on the action plan. The plan is adjusted as other opportunities present themselves.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical educator
5. Health care policy analyst/policymaker
6. Medical providers and executives
7. Allied health professionals
8. Consumers' and patients' representatives

S84– Electronic dissemination of US HIV Treatment Guideline as a living document: Free access for a global audience

Alice K. Pau, PharmD (Presenter) (National Institutes of Health, Bethesda, Maryland); Gale Dutcher (National Library of Medicine, Bethesda, Maryland); Cynthia Cadden (Social & Scientific Systems, Silver Spring, Maryland); Florencia Nochetto (Z-Tech, Rockville, Maryland)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): The US Department of Health and Human Services convened a panel of experts in 1996 to develop practice guideline for management of HIV infection in the era of highly active antiretroviral therapy. Since then, the number of FDA-approved antiretroviral drugs increased from 10 to 26; new evidence emerges rapidly and treatment becomes more complex, requiring timely updates of the guideline. Advances in electronic communications make it possible for the panel to maintain the guideline as a "living document."

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify how a web-based guideline site can allow for timely update of clinical practice area with rapid advances.

2. Identify how internet-based guideline with free access can be used to reach a large number of practitioners globally.

METHODS: A US government website (http://AIDSInfo.gov) serves as the home of the guideline, allowing revisions as needed. The panel of over 30 HIV experts conducts monthly teleconferences to review new clinical and research data. Writing groups draft revisions and present to the panel for review and approval. Final revisions are uploaded to the website. Clinicians are notified of the updates through e-newsletters. Number of downloads as PDF files are recorded.

RESULTS: Since the first publication of the guideline in 1998, 18 major revisions were released electronically on the AIDSInfo website (1-3/yr). The traffic to the website increased over the years. The guideline was downloaded approximately 3.7 million times in 2009. After the December 1, 2009 update, 492,665 downloads were recorded in December, or 15,000 downloads daily, with over 60,000 downloads on the first day. 20% of the users were from regions outside of North America (8% Western Europe, 5% Asia, and 7% other regions).

DISCUSSION (CONCLUSION): In therapeutic areas with ongoing, rapid advances, as in HIV, guidelines need to rapidly translate new evidence into changes in recommendations for standard of care. Dissemination of the guideline through the internet provides timely free access and reaches a wide audience globally.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Health care policy analyst/policymaker
5. Medical providers and executives
6. Allied health professionals

S85– Using audio-visual patient recordings to promote guideline adherence

Damian Roland (Presenter) (University of Leicester, Market Harborough, England, United Kingdom); Monica Lakhanpaul (University of Leicester, Leicester, England, United Kingdom); Nicholas Blackwell (OCB Media, Leicester, England, United Kingdom); Ffion Davies (Leicester Royal Infirmary, Leicester, England, United Kingdom); Holger Wahl, (Germany)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): The implementation of Clinical Practice Guidelines benefits from clearly understood language. However, many contain information on clinical assessment not readily appreciated by inexperienced clinicians (examples being subjective descriptions of patient appearance, such as "appears unwell" or "mild respiratory distress"). It can be hypothesized that, compared to written text, audio-visual material better communicates conceptually difficult patient descriptors.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Identify how to integrate evidence-based guidelines into video-supported online tools.
2. Identify how to use video material to engage guideline users.

METHODS: The "Spotting the Sick Child" website uses hundreds of video clips of children to demonstrate evidence-based features of disease, injury, and risk factors for deterioration. It has been distributed to health-care professionals who come into contact with acutely unwell children. As well as sections on assessment, communication, and symptom-based disease recognition, participants are invited to observe a child on presentation to an Emergency Department to their eventual discharge or admission. The National institute for Clinical Excellence (NICE) guidelines on the feverish child, vomiting and diarrhea, and urinary tract infection are embedded in the site.

RESULTS: The site receives approximately 9000 hits a month, with health-care professionals from nearly 40 countries accessing the product. The site engages health-care professionals with an average time of 53 minutes spent on the main section. Data collection is ongoing, but initial feedback from product testing shows participants enjoy the interactive aspect of the patient journey and case study.

DISCUSSION (CONCLUSION): Evidence-based guidelines disseminated using websites must be accessible and user friendly in order for health-care professionals to make time to use them. Simulating the patient journey and presenting signs and symptoms as visual material appears to engage the user. We hope to promote discussion on how best to measure the learner outcomes with this type of educational platform.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Developer of guideline-based products
3. Medical educator
4. Medical providers and executives
5. Allied health professionals
6. Nurses

S86– Web-based adjuncts to guideline dissemination: Novel interventions from the Scottish Intercollegiate Guidelines Network (SIGN)

Wendy L. Craig, MPH (Presenter) (Aberdeen Royal Infirmary/SIGN, Aberdeen, Scotland, United Kingdom); Rachel Green, MBChB (Royal Infirmary of Edinburgh/SIGN, Edinburgh, Scotland, United Kingdom); Ali El-Ghorr, PhD (SIGN, Edinburgh, Scotland, United Kingdom); Roberta James, PhD (SIGN, Edinburgh, Scotland, United Kingdom); Keith Brown, MD (SIGN, Edinburgh, Scotland, United Kingdom); Sara Twaddle, PhD (SIGN, Edinburgh, Scotland, United Kingdom)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination

BACKGROUND (INTRODUCTION): Guideline dissemination and implementation are now recognized priorities, both within the Scottish Intercollegiate Guideline Network (SIGN) and internationally. Changes in national postgraduate medical curriculum mean clinical audit skills are essential for junior medical staff to demonstrate competence towards career progression. Therefore, among SIGN council junior doctor/dentist representatives, development of tools to aid learning, with guideline dissemination a desirable side effect, was seen as an attractive innovation. We will describe experience setting up this online facility, enabling widespread dissemination of guidelines to juniors in need of such learning tools.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Identify learning adjuncts to aid guideline dissemination through facilitating use in everyday practice.
2. Understand use of audit as aid to guideline dissemination and implementation.

METHODS: We will present the process whereby, as a group of doctors in training, we have developed online adjuncts to SIGN guidelines. Working with relevant guideline groups, we have developed a series of simple, reproducible audit forms and checklists across a spectrum of specialties, pertaining to key practice points. Simple, downloadable audit forms then accompany new guideline publication. Examples will be provided. Audit methodology is described within our resource, with aids to local and central data collection.

RESULTS: We will present data from local pilots, whereby tools were tested for usability and reliability. Final online tools, available on the internet, will be presented, with early results demonstrating their potential utility. We will quantify downloads from our site in order to gauge the extent to which guideline dissemination is facilitated.

DISCUSSION (CONCLUSION): Junior doctors need audit and evidence-based medicine skills: our resource explains important basic principles, while the simplicity of tools facilitates completion of cycle(s) of evidence-based audit. This straightforward approach, in fulfilling educational needs, will aid guideline dissemination. With IHI-PDSA (plan-do-study-act) methodology, it is envisaged that individuals may carry out repeat audit cycles to then aid local uptake of guideline-compliant practice, thus facilitating implementation.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical educator

S87– Barriers and enablers to implementing the StrokeLink program: Linking evidence to practice for stroke care in Queensland, Australia

Kelvin Hill, BSc (Presenter) (National Stroke Foundation Australia, Weston, New South Wales, Australia); Neil Harris, PhD (Griffith University, School of Public Health, Meadowbrook, Queensland, Australia); Bernadette Sebar, PhD (Griffith University, School of Public Health,

Meadowbrook, Queensland, Australia);
Kathryn Wenham, BSc (Griffith University, School
of Public Health, Meadowbrook, Queensland,
Australia); Chris Price (National Stroke Foundation,
Melbourne, Victoria, Australia); Maree Herzig
(National Stroke Foundation, Indooroopilly,
Queensland, Australia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): Strategies designed
to encourage implementation of clinical guidelines have been
only modestly successful. StrokeLink is a team-based quality
improvement program developed by the National Stroke Foun-
dation (NSF) Australia to facilitate reducing the gap between
evidence (as outlined in the guidelines) and practice (as found
in the national stroke audit).
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the usefulness of a comprehensive stroke
   implementation program.
2. Explore barriers and enablers to uptake of the new pro-
   gram.
3. Discuss strategies to encourage greater uptake of imple-
   mentation programs.
METHODS: Qualitative and quantitative methods were uti-
lized involving three focus groups (13 participants), semi-
structured interviews via phone or face-to-face with key stake-
holders (11 interviews with 12 participants), and a survey to all
participants (39 responses received). Data was thematically
analyzed to understand the implementation of the StrokeLink
program.
RESULTS: The StrokeLink program has been well received
by clinicians but it is too early to assess if this has produced
improvements in clinical audits (NSF biannual audit program).
Participants recognize StrokeLink as a catalyst for reflection
and improvement of stroke care. The credibility and expertise
of the NSF staff working on StrokeLink are seen as strengths
of the program, with the workshops and ongoing support in the
form of advice, information, and connections instrumental in
facilitating change. Lack of time and resources together with
the non-engagement by key persons/groups within the care
setting were identified as the barriers to implementing
StrokeLink. Branding also was identified as a barrier, including
the need to better differentiate StrokeLink within the market-
place.
DISCUSSION (CONCLUSION): StrokeLink is an innova-
tive program which provides useful support to stroke teams in
order to utilize audit results and implement stroke guideline
recommendations. Further evaluation using audit of clinical
care will provide a clearer picture as to the utility of the
program.
TARGET AUDIENCE(S):
1. Guideline implementer
2. Quality improvement manager/facilitator
3. Allied health professionals
4. Nurses

**S88– Critical appraisal of screening mammography
guidelines: Why they differ and how this impacts
physician guidance and shared decision making
with their patients**
Belinda Ireland, MD (Presenter) (Pacific, Missouri)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): To present critical
evaluation and comparison of recent screening mammography
guidelines from major organizations, including USPSTF,
ACS, ACP, and the new joint Society of Breast Imaging and
ACR guideline. The methodology of each guideline will be
reviewed to determine the contribution from differences in
patient demographics, outcomes of interest, comparative inter-
ventions, application of systematic review methods, and values
of the guideline developers to the discrepancies in recommen-
dations.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify the major causes of discrepancies in recommen-
   dations of evidence-based guidelines.
2. Specifically examine the causes of the discrepancies in
   the various guidelines on screening mammography.
METHODS: Perform a critical review of the methodologies
and decisions of guideline developers for each of the new
screening mammography guidelines and summarize in a
spreadsheet. All steps of the evidence review process will be
examined and recorded (including PICO, analytic framework,
search strategy, quality review, etc.) for each guideline, as well
as the values and perspectives applied by guideline authors to
interpret and balance the risk/benefit data.
RESULTS: In order to make this presentation timely, the
recently released guideline of the Society of Breast Imaging
and ACR will be included in the comparison, as will any other
guidelines released up through this spring. Preliminary results
suggest implied values contribute to differences.
DISCUSSION (CONCLUSION): There are many reasons
that evidence-based clinical practice guidelines produced by
different organizations on the same clinical practice may differ,
including different application of systematic review methods,
selection of different patient populations, selection of different
outcomes, comparison to different interventions, and even the
differences in values and perspectives of the guideline devel-
opers who interpret the risks and benefits of the practice.
Efforts to standardize the scientific rigor of guideline develop-
ment will not eliminate all differences in guideline recommen-
dations when the underlying values of the guideline developers
contribute to the interpretation of the balance of risk to benefit.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or
   meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products

S89– Implementation of GLIA Assessment in Kaiser Permanente and NHLBI to improve implementability of recommendations

Wiley Chan, MD (Presenter) (Kaiser Permanente, Portland, Oregon)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): Clinical practice guidelines are not uniformly successful in influencing clinicians' behavior. When writing guidelines, assessing and addressing potential barriers to implementation will improve the chances that guideline recommendations will be implemented.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Explore various methods of implementing GLIA assessment.
2. Improve implementability of recommendations.
METHODS: The Guideline Implementability Appraisal (GLIA) tool was developed by Dr. Shiffman and colleagues to expose potential barriers to implementation of clinical practice guideline recommendations. In parallel work, both NHLBI and Kaiser Permanente (KP) made modifications to GLIA and tested the modified tool in pilot projects.
RESULTS: KP guideline development teams uniformly found GLIA useful in making their recommendations more implementable, and both KP and NHLBI have made GLIA part of their routine guideline development processes. After evaluation of the modifications, both NHLBI and KP decided to revert to the original GLIA questions, and to frame the modifications as clarifications or extensions of the original GLIA questions. A strategy of using GLIA on existing recommendations that are being updated was an effective way to train a guideline development team on use of GLIA. GLIA assessments were done by pooling individual assessments, then discussing discrepancies among the guideline development lead group. The discussion during these small-group GLIA assessments was invaluable for both training and influencing guideline writing.
DISCUSSION (CONCLUSION): Assessment of potential barriers to implementation should be a routine part of guideline development. GLIA is a useful tool for assessment of implementability.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer

S90– Reasons behind non-adherence to pediatric asthma guidelines in emergency department of King Khalid University

Rasmieh Ayed Al Zeidan, BScPharm (Presenter) (Chair for EBHC&KT, King Saud University, KSA, Al Riyadh, Saudi Arabia); Hayfaa Wahabi, BSc (Chair for EBHC&KT, King Saud University, KSA, Al Riyadh, Saudi Arabia, Saudi Arabia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): Clinical guidelines (CG) are newly introduced to some clinical practices in Saudi Arabia. There is noticeable nonadherence to the approved guidelines by the health professionals. This oral presentation reflects our experience in detecting the reasons behind non-compliance of medical professionals with asthma CG in pediatric emergency department (PED).
LEARNING OBJECTIVES (TRAINING GOALS):
1. The value of employing qualitative research such as focus group interview in improving adherence to and implementation of clinical guidelines.
2. Investigating reasons behind nonadherence to clinical guidelines in settings where guidelines were newly introduced.
3. The importance of establishing indicators for implementation of clinical guidelines together with audit and review.
METHODS: A retrospective chart review was conducted for all asthmatic pediatric patients who attended the PED, extracting data for adherence to the 7 indicators stated in asthma CG, which are:
1. asthma severity grading;
2. rate of admission to hospital;
3. routine chest x-ray;
4. routine prescription of antibiotics;
5. use of Salbutamol nebulizer instead of inhaler;
6. use of Apratrupium for mild or moderate asthma;
7. documentation of parents counseling.
To examine the reasons for noncompliance, focus group interviews were conducted with 10 nurses and 10 doctors.
RESULTS: Chart review showed that 3 out of the 7 indicators were not adhered to, which are:
1. asthma severity grading documented in 0.7% of the charts;
2. Salbutamol inhaler rather than nebulizer was used in 0% of the patients;
3. counseling of the parents was documented in 0.5% of the charts.
Reasons extracted from the focus group interview for non-adherence are:
1. The assessment form in the triage does not include a space for asthma grading.
2. Physicians indicated that asthma grading is difficult in the very young.
3. Nebulizers are used rather than inhaler because spacers are not available.
4. Counseling is not conducted because there's no health educator in PED.
DISCUSSION (CONCLUSION): Many reasons are behind nonadherence to asthma CG in PED in KKUH and intervention to improve compliance is urgently needed.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator

4. Allied health professionals
5. Nurses

S91– Actionable point-of-care decision support in multiple languages

Ilkka Kunnamo, MD (Presenter) (Duodecim Medical Publications Ltd., Karstula, Finland);
Peter Nyberg, MD (Duodecim Medical Publications Ltd., Tammisaari, Finland); Marc Verbeke, MD (Zele, Belgium); Leo van Romunde, MD (Romad BV., RB Capelle aan den IJssel, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): Clear and actionable recommendations are needed by health-care professionals and citizens in their native languages. The EBMeDS decision support service (www.ebmeds.org) is a multinational collaborative effort to develop point-of-care decision support in the form of short reminders based on data from electronic health records (EHRs) or personal health records (PHRs) combined with best available evidence and guidelines. A web-based tool was developed to a) enable collaborative content management, b) facilitate translation of reminders, c) link to international, national, and local knowledge sources, and d) adapt to different EHR data coding systems and measurement units.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Demonstrate the feasibility of knowledge transfer between different countries, languages, and user groups in formulating actionable recommendations.
2. Assess features of a web-based tool that facilitates multilingual collaboration.
METHODS: The EBMeDS editorial tools were developed to allow content production in an unlimited number of languages and testing of decision support functionality in a multilingual testing environment. By February 2010, the following languages were supported: English (UK and US), Finnish, German, French, Dutch, Swedish, Norwegian, and Estonian. Collaborative content development had been started in Finland, Belgium, and the Netherlands, and adaptation to coding systems in several countries and EHR systems was under way.

Log files of the tools are analyzed and user interviews are performed to assess factors facilitating or impeding the formulation of recommendations in different clinical cultures and languages.
RESULTS: A live demo of the multilingual features of the tool is shown in the presentation. Results of log file analyses and user interviews are presented. The user-, country-, and language-specific user interfaces, and the interactive and communicative features, appear to promote multinational use.
DISCUSSION (CONCLUSION): Collaborative formulation of recommendations based on international evidence, localization to follow national or local guidelines, and translation into multiple languages can be effectively supported by a web-based tool.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Consumers' and patients' representatives
5. Nurses

S92– Applying the Guideline Elements Model (GEM) Cutter II Tool to guidelines represented in the National Guideline Clearinghouse (www.guideline.gov)

Lisa T. Haskell, MS (Presenter) (ECRI Institute, Plymouth Meeting, Pennsylvania);
Mark J. Monteforte, MD (ECRI Institute, Plymouth Meeting, Pennsylvania); Richard N. Shiffman, MD (Yale Center for Medical Informatics, New Haven, Connecticut); Vivian H. Coates, MBA (ECRI Institute, Plymouth Meeting, Pennsylvania); Mary P. Nix, MS (Agency for Healthcare Research and Quality, Rockville, Maryland)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): The Agency for Healthcare Research and Quality's (AHRQ's) National Guideline Clearinghouse (NGC) is an online database of structured summaries of evidence-based clinical practice guidelines (CPGs). The NGC summary format supports comparison and appraisal of guidelines. Currently, 2500 CPG summaries from 200 guideline developers are in NGC. CPGs that meet NGC inclusion criteria will play an important role in the development of clinical decision support (CDS) tools that will underpin electronic health record (EHR) systems.

The Guideline Elements Model (GEM) is an XML-based model for organizing guideline knowledge into a standardized structure to facilitate translation of natural language guideline documents into a computer-readable format. GEM Cutter II is a tool that facilitates the transformation of guideline information from textual CPGs into GEM II-formatted XML. AHRQ funded its NGC contractor, ECRI Institute, to conduct a pilot study to determine the feasibility of using GEM Cutter II to abstract recommendations from CPGs included in NGC into the Knowledge Component section of GEM. Recommendations were parsed into a format that would facilitate uptake by CDS systems.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Recognize the importance of processing evidence-based clinical practice guidelines (CPGs) into a format that facilitates uptake by clinical decision support tools.
2. Understand the National Guideline Clearinghouse (NGC) experience with incorporating CPGs into the Guideline Elements Model (GEM) using the GEM Cutter II tool.
3. Identify the areas of similarity and difference between GEM and the NGC Template of Attributes.
4. Learn about the NGC approach to decreasing inter-ab-

stractor variability using GEM Cutter, and other challenges encountered during this pilot project.

METHODS: ECRI's NGC staff abstracted a convenience sample of 20 guidelines using both the NGC Template and the GEM Cutter II tool.

RESULTS: GEM-cut guideline recommendations from 20 guidelines were created by NGC staff at the same time they abstracted the guidelines for NGC. The project explored how to create GEM-cut guideline output in the NGC setting. Inter-abstractor variability was observed and controlled; this variability and other challenges encountered will be discussed.

DISCUSSION (CONCLUSION): CPG recommendation statements can be reliably abstracted into the GEM II model. Although it appears promising, additional analysis is needed to determine feasibility of offering "GEM-cut" recommendations through NGC.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical providers and executives
6. Allied health professionals
7. Nurses

S93– Planning for evidence-based care during implementation of an electronic medical record: Lessons learned

Eloise Clark, MPH (Presenter) (Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio);
Carla Williams, MS (Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio);
Robert Ochiai, MBA (Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): PURPOSE: To embed evidence in the measurement of care delivery and of health outcomes in outpatient medical specialty clinics by means of implementation of an electronic medical record (EMR).

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify challenges to embedding evidence in a new EMR for outpatient specialty care.
2. Identify processes to allow rapid development of evidence-based care recommendations.
3. Understand how clinician engagement with evidence evaluation can enhance development of useful quality measures.

METHODS: Thirty-seven outpatient divisions within a large academic pediatric institution were scheduled to roll out implementation of an EMR over a five-year period. Beginning with pilot divisions in year one, and at subsequent go-live events every four months through year five, an intentional program of preparation to embed and measure evidence-based

care (EBC) was launched. Each division selected three conditions for the focus of this effort. For each condition, EBC recommendations were identified in the literature or developed by the care team. These recommendations were used to inform the EMR build. Quality measures were developed to measure the processes related to the implementation of the EBC recommendations and to measure the health outcomes related to the medical condition.

RESULTS: Bound by a definitive rollout schedule, three types of challenges were encountered: people-related, task-related, and value-related. Lessons learned due to these challenges were continuously used to improve the process, which took about 2.5 years to stabilize. A notable benefit of the process was an appreciation by clinicians of systematic evaluation of evidence and their engagement in improving care.

DISCUSSION (CONCLUSION): Implementing an EMR involves informed discussions between clinicians and information systems personnel (IS). Prior to discussions with IS, we engaged clinicians with methodologists and outcome managers to develop EBC recommendations and quality measures. Lessons learned helped us improve 1) how to best select conditions for this project, 2) how to efficiently identify or develop EBC recommendations, and 3) how to select and develop useful quality measures.

TARGET AUDIENCE(S):
1. Outcomes managers
2. Guideline developer
3. Guideline implementer
4. Quality improvement manager/facilitator
5. Medical providers and executives
6. Allied health professionals
7. Nurses

S94– Recommendations for clinical guideline developers regarding clinical decision support-related standards

Dean F. Sittig, PhD (Presenter) (University of Texas, Houston, Houston, Texas); Adam Wright, PhD (Brigham and Women's Hospital, Boston, Massachusetts); Blackford Middleton, MD (Partners HealthCare, Wellesley, Massachusetts);
Ruslana Tsurikova (Partners HealthCare, Wellesley, Massachusetts); Joan S. Ash, PhD (Oregon Health & Science University, Portland, Oregon)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): Along with the U.S. government's push for EHR adoption by health-care providers will come an equally intense push to identify and develop point-of-care clinical decision support (CDS). CDS implementers will turn to clinical practice guidelines as their source of evidence-based clinical knowledge. Most of this knowledge exists in free text or figures.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand the factors that make converting free-text clinical practice guidelines into machine-executable clinical decision support interventions so difficult.
2. Identify seven key steps for improving the clinical guideline development process.
3. Understand the importance of creating high-quality clinical decision support interventions to enable "meaningful use."

METHODS: Using our Rapid Assessment Process we sent 3 to 6 researchers on 7 site visits, during which we held discussions with key stakeholders and conducted observations of ambulatory clinicians as they used their CDS-enabled EMR systems in the routine care of patients. Following the site visits, we analyzed the data using a grounded approach and developed the following set of recommendations.

RESULTS: Based on our field work, we recommend that guideline developers standardize input data for CDS; standardize clinical logic expressions to represent guideline knowledge for CDS; standardize insertion points in the clinical workflow for CDS; standardize specification of offered choices, or action recommended by CDS interventions; standardize methods for tailoring and customizing CDS recommendations based upon considerations of local care delivery issues; develop guidelines so that they can be parsed and tagged to support access for explanation of CDS recommendations at the point of care; and include qualified clinical informaticians in the guideline development process.

DISCUSSION (CONCLUSION): We hypothesize that if clinical guideline developers incorporated all of these recommendations, many more health-care organizations could begin to develop and implement the basic clinical decision support features that are necessary to radically transform both the quality and safety of the current health-care system, and achieve the "meaningful use" targets as they are established by the Department of Health & Human Services.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

S95– The impact of education, audit and feedback on improving sepsis care guideline adherence

Ruth M. Kleinpell, PhD (Presenter) (Rush University Medical Center, Chicago, Illinois);
Gourang P. Patel, PharmD (Rush University Medical Center, Chicago, Illinois); David P. Gurka (Chicago, Illinois); Omar Lateef (Rush University Medical Center, Chicago, Illinois); Edward Ward, MD (Rush University Medical Center, Chicago, Illinois); Marsha Mulbarger, MSN (Rush University Medical Center, Chicago, Illinois)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline adherence and nonadherence

BACKGROUND (INTRODUCTION): Evaluating clinician awareness and use of evidence-based practice is an essential component of ensuring the consistent application of guidelines. International guidelines for the management of sepsis have been widely disseminated, yet adherence rates remain problematic. Purpose: The purpose of this initiative was to assess the impact of clinician education and ongoing 6-month evaluations of compliance rates to an institutional sepsis protocol that was developed based on the international Surviving Sepsis Campaign Guidelines.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Discuss the results of ongoing audit and feedback of guideline adherence to a sepsis protocol.
2. Identify strategies for improving guideline adherence based on experiences related to implementation of a sepsis protocol.
3. Highlight strategies for improving guideline adherence including the use of clinician education, audit, and feedback.

METHODS: Baseline web-based surveys were conducted with 240 ED and ICU clinicians, including physicians, nurses, and pharmacists, to assess knowledge of the sepsis guidelines. Results of the surveys indicate a lack of knowledge among providers in both the ER and ICUs regarding recommended guidelines for sepsis care. Educational in-services were conducted and implementation of a formal sepsis protocol was completed over a 3-month period. Chart reviews were then conducted after protocol implementation over three 6-month time periods between March 2008 and November 2009 for over 240 patients admitted to the emergency department with a diagnosis of confirmed or suspected sepsis.

RESULTS: Time to fluid bolus goal of 30 minutes increased from 78% to 91.3%. Time to antibiotic goal of 60 minutes increased from 89% to 94% but fell to 91%. The percent of patients meeting both antibiotic and fluid goals increased from 69% to 82.6%. Average time between patient admission and lactic acid levels decreased from 92.8 to 51.6 minutes and the average time between patient admission and start of sepsis protocol fell from 85.3 to 53.7 minutes.

DISCUSSION (CONCLUSION): Implications: Focused education and reinforcement of sepsis guidelines resulted in significant improvements in adherence to sepsis management recommendations.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Medical educator
5. Medical providers and executives
6. Allied health professionals
7. Nurses

S96– A government policy approach to implementing a SIGN guideline

Ali El-Ghorr, PhD (Presenter) (Scottish Intercollegiate Guidelines Network (SIGN),

Edinburgh, Scotland, United Kingdom);
Sara Twaddle, PhD (Scottish Intercollegiate
Guidelines Network (SIGN), Edinburgh, Scotland,
United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The SIGN guideline on the "management of harmful drinking and alcohol dependence" was published in 2004, recommending that alcohol brief interventions (ABIs) should be delivered to prevent future heavy drinking. No implementation support was offered at the time, so the guideline was not implemented.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess the effectiveness of one mode of guideline implementation: setting government policy and a performance target.
2. Understand the context of guideline implementation in Scotland.
METHODS: In 2007, the Scottish government decided to set a performance target for the NHS to implement the SIGN guideline and to deliver 150,000 ABIs by March 2011. This is the first occasion where a SIGN guideline has been the subject of a government policy and a performance target. To support the implementation of this guideline, funding was provided to train staff to deliver ABIs and to oversee the implementation the guideline.
RESULTS: This implementation program began in March 2008 and lasts for 3 years. Training for trainers has been delivered in every area and over 3200 staff have been trained to deliver ABIs.

From a baseline of almost no ABIs in the past, a total of 26,499 were delivered in 2008/2009. There are target numbers for each health board to reach over the next 2 years in order to achieve the 150,000. Outcome indicators are also being measured to assess the longer-term impact. These include alcohol-related emergency attendances, liver disease, and alcohol-related violence.
DISCUSSION (CONCLUSION): This shows a good example of multiple agencies working together to improve health care based on evidence. The Scottish government, in partnership with SIGN, education bodies, and local health boards, are all working together to achieve this aim and tackle a serious social problem. Having a government policy and a performance target for senior managers is ensuring that this happens.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Medical providers and executives
7. Allied health professionals
8. Consumers' and patients' representatives
9. Nurses

S97– Application of a "bundle of care" approach to prioritize guideline recommendations for implementation

Susan Huckson, BSc (Presenter) (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Scott Bennetts, CCRN (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia); Jodie Clydesdale (NHMRC's National Institute of Clinical Studies, Melbourne, Victoria, Australia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The National Health and Medical Research Council's (NHMRC) National Institute of Clinical Studies (NICS) works to support the national uptake of guidelines in Australia. Identifying and prioritizing of recommendations relevant to the setting or sector is often the first step in the implementation process. NICS sought to apply the "bundle of care" approach to prioritize guideline recommendations for the management of Stroke and Transient Ischaemic Attacks (TIA) in Emergency Departments. A care bundle is a group of evidence-based interventions or recommendations that the health professionals can easily remember and that, when combined, significantly improve care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To explore the "bundle of care" approach and its broader applicability for guideline implementation.
2. To understand the process and undertaken to develop the Stroke and TIA.
METHODS: A reference group, including emergency medicine and stroke specialist clinicians, considered all relevant recommendations from the National Stroke Foundation (NSF) guideline using the following the criteria to develop the Bundle:
- each component must be based on sound evidence;
- the delivery of each component must be in need of improvement;
- the delivery of each component must be achievable in terms of resources;
- no component should be a major source of controversy;
- the delivery of each component must be measurable.
RESULTS: The development of a guideline implementation tool specifically designed for the care provided during the ED stay for patients presenting with stroke or TIA.
DISCUSSION (CONCLUSION): A "bundle of care" approach was used to develop a guideline implementation tool to support national uptake of the NSF Clinical Guidelines for Acute Stroke Management (2007) in the ED.
TARGET AUDIENCE(S):
1. Health professionals
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Allied health professionals

S98– How can we improve guideline implementation? A systematic review of the role and impact of facilitative intermediaries

Anna R. Gagliardi, PhD (Presenter) (University Health Network, Toronto, Ontario, Canada); Fiona Webster, PhD (Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada); Melissa C. Brouwers, PhD (McMaster University, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Facilitative intermediaries (FIs) can promote the uptake of knowledge but with variable impact across studies. The means by which FIs exert influence has been poorly conceptualized, operationalized, and reported. To guide future research, this study described how FI attributes and role influenced guideline use.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Review the evidence on roles that influence health professional knowledge and behavior.
2. Learn about limitations in the way these roles are conceptualized and operationalized.
3. Understand how such roles could be modified to enhance their impact.
4. Assess the need for ongoing research to evaluate the attributes, roles, and impact of facilitative intermediaries.
METHODS: Multiple databases were searched from 1992 to June 2009 for English-language studies where FIs promoted guideline use. Two individuals independently selected eligible studies and extracted data.
RESULTS: Ninety-seven studies (32 observational, 65 randomized) were eligible for review (138 retrieved from 451 search results). The FI was frequently external to the target setting (56) and part of a multifaceted intervention (61). Fifty-one studies provided details about FI training, which ranged from single workshops of varying length to 30-week programs. No studies described how the FI was meant to exert influence. FI role was evaluated in 23 studies according to number or duration of, or satisfaction with, FI interactions. FI activities included phone calls, single presentations, and a range of 1 to 15 visits varying in length from 10 minutes to 1 hour. Impact on professional behavior was assessed in 86 studies with significant improvement on at least 1 measure in 58 (21 observational, 37 randomized). Impact on clinical outcomes was assessed in 22 studies with significant improvement on at least 1 measure in 2 randomized studies.
DISCUSSION (CONCLUSION): Future research should evaluate FI role alone rather than as part of multifaceted interventions, recruit and train internal candidates, plan and evaluate FI activities based on explicit intended role, and assess roles that actively assist with adoption over time rather than single efforts to inform or persuade.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator

S99– Implementation of a shared care guideline for back pain: Effects on unnecessary referrals and diagnostic procedure

Margot Ah Fleuren, PhD (Presenter) (TNO Quality of Life, Leiden, Netherlands); Elise Dusseldorp, PhD (TNO Quality of Life, Leiden, Netherlands); Susan Van den Bergh, MA (HaCa Foundation, Eindhoven, Netherlands); Dirk Wijkel, PhD (Thema Foundation, Geldrop, Netherlands); Janny Wildschut, MA (Quartz Foundation, Helmond, Netherlands); Hans Vlek, PhD (Centre for primary care Tiel, Tiel, Netherlands); Elske Van den Akker, PhD (Leiden University Medical Center, Leiden, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Studies of the treatment of the Lumbosacral Radicular Syndrome (LRS) show that there is no evidence supporting referral during the first six weeks after the onset of the symptoms. Although care providers in the Netherlands have the same guidelines for the conservative treatment of LRS, adherence is not optimal. Main reasons for nonadherence are patient pressure on the GP for referral and the lack of coordination between GPs, physiotherapists, and medical specialists in terms of standardizing treatment. As a result, unnecessary referrals take place and waiting times in hospitals become longer for patients who require referral.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understanding how the actual implementation of guidelines is maximized if they are introduced systematically.
2. Assessing the actual use of guidelines.
3. Understanding the effect of introducing shared care guideline at the regional level for improving adherence.
METHODS: Introduction of a shared care guideline derived from national guidelines for GPs and medical/paramedical specialists in two Dutch regions. 360 GPs, 550 physiotherapists, and two hospitals were involved. Essential component of the guideline was a trade-off: if the GP complied with the conservative management approach in the first six weeks, the hospital guaranteed a priority appointment with the neurologist after six weeks, if still required. Effects on unnecessary referrals and duration of the total diagnostic procedure were investigated. Pre-test in 2005, a first post-test in 2006, and a second post-test in 2007. Neurologists in both hospitals registered whether a patient had been unnecessarily referred.
RESULTS: The percentage of patients being unnecessarily referred within six weeks fell significantly from 15% in 2005 to 9% in 2006 and 8% in 2007. The duration of the total

diagnostic procedure also fell significantly in both the long and short terms.

DISCUSSION (CONCLUSION): The introduction of a shared care guideline for all care providers in a region reduces the number of unnecessary early referrals for patients with LRS and proves to be a good implementation strategy.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Health care policy analyst/policymaker
5. Health insurance payers and purchasers

S100– Results of the pilot study of a systematically developed, theory-based intervention to improve the use of evidence-based practice guidelines for low back pain: The GIPhT study

Geert Rutten, MPH (Presenter) (Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands); Janneke Harting, PhD (AMC UvA, Amsterdam, Netherlands); Nanne de Vries, PhD (Maastricht University, Maastricht, Netherlands); Rob Oostendorp, PhD (Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Adherence to the Dutch physiotherapy guidelines on low back pain is moderate. To improve guideline adherence, we developed an implementation program for physical therapists and practice quality managers. The program was pilot tested in 2009.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Assessing the benefit of professionals' self-regulation for the implementation of evidence-based practice guidelines.
2. Assessing the contribution of organizational change for the implementation of evidence-based practice guidelines.
3. Learning about the effectiveness of systematically developed, theory-based, multilevel interventions for the implementation of evidence-based practice guidelines.

METHODS: In a 6-session training course, participants were trained in self-regulation as major method of change. Awareness of professional performance, clinical reasoning, and practice management were the main themes. Learning methods were lectures, deliberation, practical exercises, and vicarious learning. Potential effectiveness of the intervention was measured using a one-group pretest-posttest design (including 8 practices; 32 physical therapists). Guideline adherence, behavioral, and organizational factors were measured by a questionnaire survey using clinical vignettes. A process evaluation (by observations, registrations, focus group interviews) was performed, focusing on acceptability and feasibility of the program.

RESULTS: Data on potential effectiveness showed substantial changes of 25% improvement on issues where collective practice goals were set. The process evaluation showed that the intervention was well implemented. Quality managers learned to use several tools for quality management and applied them in their practice, especially if they participated in a team of peers. Physiotherapists applied the steps of self-regulation in practice and set individual and practice goals for guideline implementation. The combined approach on individual and management level appeared to be synergistic.

DISCUSSION (CONCLUSION): Physiotherapists may benefit from self-regulation in their efforts to implement guidelines, especially when it is supported by practice quality management. Guidelines should be organized in accordance with the process of care, support clinical reasoning, and should therefore be written in an accessible way. Following the pilot test, we encourage physical therapists to participate in the program to reach substantial quality improvement.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Quality improvement manager/facilitator
5. Allied health professionals

S101– Setting priorities in clinical research: Identification and classification of research gaps from evidence-based guidelines

Ian J. Saldanha, MPH (Presenter) (Johns Hopkins University, Baltimore, Maryland); Karen A. Robinson, PhD (Johns Hopkins University, Baltimore, Maryland); Naomi A. Mckoy, BS (Johns Hopkins University, Baltimore, Maryland)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Guideline committees developing evidence-based guidelines (EBGs) are multidisciplinary and consider evidence synthesized in systematic reviews. Such committees are ideally suited to identify gaps in evidence that limit the ability to make health-care decisions. However, gaps thus identified have not been explicitly considered while setting research agendas. We pilot-tested a method to systematically identify and classify research gaps from EBGs.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Assess the use of guidelines for identifying and research agendas.
2. Recognize the need for guidelines to state research gaps more explicitly.

METHODS: We reviewed all EBGs developed by the Cystic Fibrosis Foundation. We identified research gaps topics as with insufficient evidence for which no recommendations were made, consensus recommendations were made, or the need for further research was specified. We classified gaps by type of management issue, patient clinical severity, and patient lifes-

pan stage. We assessed the completeness of reported research gaps by the number of times populations, interventions, comparisons, and outcomes were explicitly stated.

RESULTS: We reviewed 5 EBGs, averaging 3 days to extract gaps from each. We identified 62 research gaps (median=9/ EBG). While 13 gaps were topics specified as needing further research, most (n=49) were topics with insufficient evidence. Of these 49, recommendations were not made for 22 topics while consensus recommendations were made for 27 topics. Most gaps addressed comparative effectiveness (44/62), were not specific to patients of a particular clinical severity (40/62), and were specific to infants (33/62). Only 6.5% and 16.1% of gaps stated relevant comparisons and outcomes respectively.

DISCUSSION (CONCLUSION): Process challenges included translating gaps to needs because information such as relevant comparisons was not stated. Guideline committees should be encouraged to state research gaps more explicitly. Our next steps are translating research gaps into researchable questions and prioritizing research needs.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Allied health professionals

S102– An alternative approach to guidelines and quality measurement for older adults with multiple morbidities

Murray N. Ross, PhD (Presenter) (Kaiser Permanente Institute for Health Policy, Oakland, California)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guidelines and public policy
BACKGROUND (INTRODUCTION): Because older adults with multiple morbidities represent the greatest opportunities to improve outcomes and control costs within the health-care system, the Kaiser Permanente Institute for Health Policy explored whether the existing approaches to clinical practice guidelines and quality measurement actually address the needs of this growing population. The published literature, including selected reports by national health-care organizations, was reviewed and interviews with research and policy experts were conducted. This presentation summarizes the classification systems for diseases and conditions, instruments, and analytic methods for clinical quality measurement, outcome research, patient perception of care, self care, and emergent models of care. The authors conclude that the single disease-centered model, which has been the underpinning of evidence-based clinical practice guidelines, is inadequate in addressing the needs of this population. A shift from a condition-based approach to a patient-centered, holistic approach to guidelines and quality measurement for the older adult with

multiple morbidities is recommended. Research and policy recommendations by national public and private health-care groups supporting this new approach are summarized and next steps are identified.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess relevance of single-disease-based guidelines and quality measures for multimorbid older adult population.
2. Summarize current state of the art and recommend next steps.

METHODS: Review of literature and expert interviews.

RESULTS: Inadequacy of single-disease-centered measures is increasingly recognized, but it is less clear that a shift to a patient-centered perspective is guiding guideline and quality measure development.

DISCUSSION (CONCLUSION): Increased emphasis on evidence-based medicine and pay for performance puts a greater weight on the accuracy and relevance of the supporting research. Policymakers, guideline developers, and payers need a better understanding of the limits of current evidence and the need to develop measures consistent with desired outcomes.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Health insurance payers and purchasers
7. Consumers' and patients' representatives

S103– Promoting evidence-based decision making in India: District Evaluation Study on Health (DESH)

Onil Bhattacharyya (Presenter) (Centre for Global Health Research, Toronto, Ontario, Canada); Saba Khan (Centre for Global Health Research, Toronto, Ontario, Canada); Prabha Sati (Centre for Global Health Research, Toronto, Ontario, Canada); Vijayalakshmi Hebbare (Centre for Global Health Research, Bangalore, India); Prem Mony (Centre for Global Health Research, Bangalore, India); Shreelata Rao-Seshadri (Centre for Global Health Research, Bangalore, India); Prabhat Jha (Centre for Global Health Research, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Implementing guidelines in developing countries
BACKGROUND (INTRODUCTION): Use of evidence in policy is inconsistent, resulting in suboptimal allocation of resources. New information on disease control priorities based on India's disease burden can inform policy during a period of increased spending. However, the best way to promote uptake of evidence by policymakers remains unclear. This study tests the impact of sending a targeted information package with comparative performance data and actionable messages to dis-

trict-level decision makers in India on uptake of disease control priority recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Assess methods of guideline dissemination and implementation in developing countries.
2. Understand how evidence can be incorporated into district-level policy.

METHODS: All districts in India (n=594) were randomized to receive either the mailed information package or no intervention. The intervention targets key district-level actors: politicians, bureaucrats, and technocrats, including Chief Medical Officers (CMOs). Outcome data will be collected using sequential surveys on prioritization and implementation of health interventions by CMOs and review of administrative databases for budgetary and health service measures.

RESULTS: The baseline survey response rate was 53% (314/594), with no significant differences found between intervention and control groups. Almost half of respondents identified chronic disease as the leading cause of death in their district, but just 35% and 34% gave high priority to tobacco and cardiovascular interventions, respectively. Only 48% of respondents had implemented a priority tobacco intervention in the past year. Most CMOs (64%) agreed that they were responsible for acting to reduce maternal and child deaths in their districts, but almost half (49%) believed there were too many hurdles to achieve this goal.

DISCUSSION (CONCLUSION): This study is one of the first knowledge translation intervention studies targeting policymakers, testing an inexpensive, replicable strategy on a large scale. Baseline data suggests room for improvement, as well as barriers regarding policymakers' belief that they can effect change.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline implementer
3. Health care policy analyst/policymaker

S104– A system-wide model for delivering critical care facilitated long-term successful guideline implementations

Richard S. Irwin, MD (Presenter) (UMass Memorial Medical Center, Worcester, Massachusetts);
Cynthia T. French, MS (UMass Memorial Medical Center, Worcester, Massachusetts);
Helen Flaherty, MS (UMass Memorial Medical Center, Worcester, Massachusetts);
Shawn Cody, MS (UMass Memorial Med Center, Worcester, Massachusetts); Karen Landry, BS (UMass Memorial Med Center, Worcester, Massachusetts); Willis Chandler, MBA (UMass Memorial Medical Center, Worcester, Massachusetts); Craig Lilly, MD (UMass Memorial Medical Center, Worcester, Massachusetts)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into health-care systems

BACKGROUND (INTRODUCTION): Because successful guideline implementation is a local challenge, we created a system-wide virtual structure for delivering critical care across our medical center that is interdisciplinary, collaborative, evidence-based, and patient-focused in order to facilitate standardization of care.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Obtain initial and ongoing support from senior administrative and clinical leadership for creating a model that will facilitate successful guideline implementation.
2. Identify a philosophy of collaborative care with all stakeholders that will be used as the guiding principle for all decisions.
3. Establish a strategy that recognizes and incorporates the importance of people, processes, and tools.
4. Understand that a system can never "rest on its laurels."

METHODS: An interdisciplinary group of stakeholders: 1) Formed a Strategic Planning Committee to make recommendations to senior leadership on how to transform critical care services. 2) Established a philosophy and system-wide organizational structure (Critical Care Operations Committee [CCOC]) to function as a "virtual" rather than a standalone department to mitigate silo thinking and foster standardization of practices through development and implementation of guidelines. The CCOC has a physician chair and nurse co-chair and core membership of a confederation of medical directors and nurse managers, with equal authority, from 7 adult ICUs, the PICU, PACU, and ED, and representatives of other disciplines with a stake in critical care. 3) Applied concepts from social cognitive learning theory, stages and processes of change, social support, and the health-belief model to develop consensus, communication, collaboration, and accountability strategies. 4) Developed tools for continuous monitoring and sharing data, including process and patient outcomes.

RESULTS: Twelve guidelines were developed and implemented in 7/7 ICUs. Analyses showed increases in practice of evidence-based medicine, patient safety, revenue, and utilization of resources; and decreases in severity adjusted mortality and length of stay, and costs. Adherence results for low tidal volume mechanical ventilation, as an example, improved from 53% (2007) to 78%* (2008) and 81%* (2009) (*p<0.001).

DISCUSSION (CONCLUSION): A system-wide, interdisciplinary, collaborative, patient-focused model created an environment that facilitated standardization of evidence-based care through implementation of guidelines. This has allowed us to deliver better care at less cost.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policymaker

8. Health insurance payers and purchasers
9. Medical providers and executives
10. Allied health professionals
11. Consumers' and patients' representatives
12. Nurses

S105– Are we making the most of disinvestment opportunities?

Caroline A. Keir, MS (Presenter) (NICE, London, England, United Kingdom); Sarah L. Willett, BA (NICE, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health-care systems
BACKGROUND (INTRODUCTION): There is constant and increasing pressure on health budgets from the demands of an aging population, continual improvement in health technologies, and the need to reduce public spending. Against this backdrop it is essential that full consideration is given not just to the cost effectiveness of innovation, but to the value of established practice. NICE guidelines frequently identify opportunities for disinvestment in ineffective practices that have the potential to release scarce resources. The extent to which these opportunity costs are realized has not been fully explored.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Awareness of the types of recommendation that encourage disinvestment.
2. Understand the barriers that prevent disinvestment.
3. Understand the opportunities that encourage disinvestment.
METHODS: Identify and categorize a sample of disinvestment recommendations from published NICE guidelines. Survey a range of NHS professionals (to include clinicians, service managers, and commissioners) from within the same local health economy. Use a case-study approach to identify the extent to which the selected disinvestment recommendations have been implemented and how released resources have been quantified and reinvested.
RESULTS: The different types of disinvestment recommendations will be presented and any common themes or differences in attitude to the implementation of these recommendations will be reported.
DISCUSSION (CONCLUSION): We will discuss how different factors such as the type of disinvestment recommendations and attitudes to them may influence change in clinical practice.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Medical educator
5. Health care policy analyst/policymaker
6. Medical providers and executives

S106– Developing quality standards for the NHS in England: The NICE Quality Standards Program

Tim Stokes, MBChB (Presenter) (NICE, Manchester, England, United Kingdom); Nicola Bent, Phar (NICE, Manchester, England, United Kingdom); Val Moore, MSc (NICE, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health-care systems
BACKGROUND (INTRODUCTION): In 2008 the English Department of Health published a major policy review–the NHS Next Stage Review (High Quality Care for All)–which set out how health-care quality should be defined and assessed and recommended that the role of NICE be expanded to develop quality standards. NICE set up a pilot Quality Standards program in 2009. A Quality Standard is a set of specific, concise statements that: a) act as markers of high-quality, cost-effective patient care across a pathway or clinical area, covering treatment or prevention; b) are derived from the best available evidence (NICE Guidance and NHS Evidence accredited sources); and c) are produced collaboratively with the NHS and social care, along with their partners and service users. Each Quality Standard has a set of 5 to 10 descriptive quality statements of the key infrastructural and clinical requirements for high-quality care and a set of quality measures that will allow achievement against the quality statements to be measured.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the aims, objectives, and methods of a national Quality Standards program.
2. Share issues and approaches that may be transferable to different health-care systems.
METHODS: The interim process guide for the NICE Quality Standards program has been published. Four Quality Standards have been developed as part of the pilot and are to be published in the spring of 2010: Dementia, Stroke, Venous Thromboembolism (VTE) Prevention, and Specialist Neonatal Care.
RESULTS: An overview of the NICE Quality Standards program, how clinical guidelines are used to inform their development, and methodological issues encountered with the four pilot NICE Quality Standards will be presented.
DISCUSSION (CONCLUSION): The key issues national guideline developers need to consider when linking their work to quality standard development will be discussed.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Allied health professionals
9. Consumers' and patients' representatives
10. Nurses

S107– Embedding guidance into electronic medical records and panel management tools: Implications for guideline writers

Wiley Chan, MD (Presenter) (Kaiser Permanente, Portland, Oregon); Craig Robbins, MD (Kaiser Permanente, Denver, Colorado)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health-care systems
BACKGROUND (INTRODUCTION): Guidelines are largely academic exercises unless the guidance is implemented in health-care delivery systems. The specific methods of embedding guidance into electronic health records and panel management tools have implications for guideline writers.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how guidance is embedded at the point of care.
2. Discus how guidelines can be written to better enable electronic implementations.
METHODS: We will explore the various mechanisms Kaiser Permanente uses to embed guidance at the point of care to illustrate how guideline writers can tailor their documents to support electronic implementations. We will also explore elements that make electronic implementations successful.
RESULTS: An example of how to embed guidelines is through the use of web portals. Kaiser Permanente has worked to develop portals for guidelines that address the needs of clinical users. Such portals can serve as an entry point into the larger guideline document by posting hyperlinks to background information around specific recommendations.
DISCUSSION (CONCLUSION): We will discuss all of the ways Kaiser Permanente supports guideline implementation into electronic medical records by embedding guidance in the EMR and Panel Management tools and by distilling key sought-after guidance into a concise interface.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

S108– Implementation of the Guidelines for the Diagnosis and Management of Asthma, 2007 (Guidelines) in Suffolk County, New York, operated health centers (SCHCs)

Lewis R. Mooney (Presenter) (Suffolk County (NY) Dept. of Health Services, Coram, New York);
Shaheda Iftikhar, MD (Suffolk County (NY) Dept. of Health Services, Hauppauge, New York);
Karen Kessler, RN (Suffolk County (NY) Dept. of Health Services, Coram, New York)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health-care systems

BACKGROUND (INTRODUCTION): In order to improve asthma care for the 6132 persons with asthma seen yearly at the ten (10) SCHCs, a broad-based asthma taskforce (AT) of end users was formed to develop policy and implementation tools based on the Guidelines. Compliance was tracked by a departmental asthma coordinator using one of the implementation tools.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Designing effective implementation tools for guideline implementation.
2. Overcoming barriers to the implementation of complex national guidelines at the local level.
METHODS: The AT developed local policy, procedure, and implementation tools adapted from the Guidelines. These implementation tools consisted of: six age-specific Provider Education Summary Sheets - Classifying Asthma Severity/Classifying Asthma Level of Control; three age-appropriate Asthma Medication Worksheets; an Asthma Action Plan (AAP) in English and Spanish; and an Asthma Management Plan (AMP), which is a single-page patient encounter form that generated a carbonless second page and enables the health-care professional to implement departmental asthma policy on a single page. After deployment, asthma education sessions were held. Monthly compliance with the policy was ensured by the full-time asthma coordinator using the carbonless yellow copy of the AMPs to track compliance. Compliance was reported both monthly at departmental meetings and on the department's intranet web site.
RESULTS: In January 2009, the first month of deployment, 231/458 persons (50%) with asthma had AMPs on their medical record. This increased to 428/476 (90%) by December 2009. For the initial project year 5229/6132 persons (85%) with asthma had AMPs on their medical records.
DISCUSSION (CONCLUSION): Successful implementation of new and complex national clinical guidelines in a large and diverse health-care delivery system is facilitated by broad input into policy design, design of appropriate implementation tools, selecting methods of policy deployment, education, and the on-going data collection and dissemination. These components are required to bring meaningful change to large and complex health-care delivery systems.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Medical providers and executives

S109– Rationalized perioperative antibiotic prophylaxis through incorporation of Scottish Intercollegiate Guideline Network (SIGN) guidelines with local practice

Wendy L. Craig, MPH (Presenter) (Aberdeen Royal Infirmary, Aberdeen, Scotland, United Kingdom);
Roberta James, PhD (SIGN, Edinburgh, Scotland, United Kingdom); Terry O'Kelly, MD (Aberdeen Royal Infirmary, Aberdeen, Scotland, United Kingdom)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into health-care systems

BACKGROUND (INTRODUCTION): Perioperative antibiotic prophylaxis is one factor relevant to hospital-acquired infection (HAI), particularly, Clostridium difficile (CDiff), through inappropriate cephalosporin use. SIGN guideline 104 provides guidance, by procedure, as to best practice regarding indications, timings, and administration of drugs; guidance is designed to be populated by local drug protocols. This guideline has become policy within our general surgical unit: we present improvements in practice, by measures of process and outcome.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand ease of integration of national guidelines with local practice.
2. Identify practice points towards measuring process and outcome of guideline implementation.
3. Understand use of audit as an adjunct to guideline implementation and practice improvement.

METHODS: Baseline audit of perioperative prophylaxis was carried out for two procedures, colonic resection and laparoscopic cholecystectomy, against local drug protocol and guideline. Rapid-cycle PDSA (plan-do-study-act) methodology examined drug, indication, and timing. New literature was then displayed within operating theatres, SIGN guideline practice points integrating local drug protocols for all procedures. Consultant surgeons were educated via e-mail, and thereafter the same procedures re-audited. Coincidentally, acquired CDiff rates were measured at ward level.

RESULTS: At baseline (n = 20.2 cycles), cholecystectomy showed problems regarding indication (prescribing inappropriately, 80%) and choice of drug (correct, 35%); colonic resections showed less noncompliance, but both procedures lacked documentation regarding indication and timings. Following new policy documents, two further cholecystectomy cycles were completed (n = 10.14), with improvement in correct omissions, although 42% still received unnecessary prophylaxis. Correct antibiotics were given in 75%. Colonic resections (n = 10.12) were compliant for drug and dose in 86%. Coincidentally, CDiff cases averaged 1.5/month prior to new protocols, now measuring 0.25/month, albeit within wider ward policy towards rationalized antibiotic prescribing.

DISCUSSION (CONCLUSION): Integration of SIGN guidance with local protocol was straightforward, and may contribute to higher rates of correct omission and adherence to preferred drugs. Further benefit may be gained towards a safer health-care environment, with appropriate antibiotic use aiding reduction in HAI, as demonstrated by limited outcome measures here.

TARGET AUDIENCE(S):

1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Medical educator
5. Medical providers and executives
6. Allied health professionals

S110– How can we improve guideline implementation? Development and evaluation of self-audit tools

Jessica Cheng, BSc (Presenter) (Toronto General Research Institute, Toronto, Ontario, Canada); Antonio Finelli, MD (Princess Margaret Hospital, Toronto, Ontario, Canada); Ivan Silver, MD (University of Toronto, Toronto, Ontario, Canada); Melissa C. Brouwers, PhD (McMaster University, Hamilton, Ontario, Canada); Anna R. Gagliardi, PhD (University Health Network, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into medical/nonmedical professional education

BACKGROUND (INTRODUCTION): Research on guideline implementability theorizes that provision of self-audit tools may enhance guideline implementation. Before testing this, we examined the availability and impact of self-audit tools and physician views about self-audit, and pilot-tested a self-audit kit.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Learn why self-audit tools are theorized to promote guideline use.
2. Review evidence on the availability and impact of self-audit tools with differing attributes.
3. Identify physician views and preferences for self-audit tools and activities.
4. Examine the use and impact of a pilot self-audit kit.

METHODS: Multiple databases were searched from 1990 to June 2009 for English-language studies evaluating self-audit. Two individuals independently selected eligible studies and extracted data. Physician views about self-audit were explored via two focus groups with 30 urologists and telephone interviews with 30 physicians of differing specialty. Use and impact of a self-audit kit by 20 urologists was explored via telephone interviews.

RESULTS: Five observational studies were eligible for review (47 retrieved from 197 search results) involving 14 to 966 physicians. The completion rate was 48% to 80%. All programs included training and stimulus for reflection. Opportunities for improvement were identified in two studies, and improved compliance with diagnosis or treatment were reported in four studies. Urologists who took part in focus groups said they would value tools, instructions, and examples (80.0%) and access to peer guidance (86.7%). During interviews physicians agreed that self-audit was an important way to learn about new evidence that could improve patient care. They recommended web-based tools generated by a coordinating agency. Most urologists who pilot-tested a self-audit kit said it was easy to use and mentioned modifying their practice based on unexpected findings.

DISCUSSION (CONCLUSION): Guideline-based self-audit may improve performance and outcomes, but experimental testing is needed. Important elements of self-audit tools may

include instructions, examples, templates, prompts for reflection, and access to training and/or peer support.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator

S111– Understanding potential barriers and facilitators in the implementation of NICE clinical practice guidelines: Results of a survey of United Kingdom medical students

Logan N. Manikam, MBChB (Presenter) (University of Leicester, Leicester, England, United Kingdom); Jay Banerjee, MBBS (University Hospitals of Leicester NHS Trust, Leicester, England, United Kingdom); Monica Lakhanpaul, DM (University of Leicester, Leicester, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into medical/nonmedical professional education
BACKGROUND (INTRODUCTION): Clinical practice guidelines (CPG) developed by the National Institute of Health and Clinical Excellence (NICE) aim to address inequalities in practice in the National Health Service (NHS) by supporting health-care professionals to deliver best patient care. However, current research suggests that guideline implementation is currently patchy. As the future NHS workforce, it is important to quantify medical students' knowledge of and attitude towards evidence-based medicine (EBM) and NICE CPGs that will identify potential barriers and facilitators that may influence implementation of appropriate educational strategies at the undergraduate level.

LEARNING OBJECTIVES (TRAINING GOALS):

1. For researchers: Understand students' attitudes towards EBM/CPGs which will help direct educational strategies to address this cognitive deficit and further qualitative research to understand the noncognitive deficits.
2. For students: To learn the usefulness of EBM/CPGs and their impact on NHS care, facilitating introspection to understand their role as future clinicians and the importance of social equality and justice within a taxpayer-funded health-care system.

METHODS: An Internet-based survey using a self-administered questionnaire was administered to medical students in England and Wales to study their attitudes towards and knowledge of EBM and NICE CPGs. Mann-Whitney and Kruskal-Wallis tests were used to compare means of continuous variables for different groups.
RESULTS: Responses from 323 medical students across seven medical schools were received. Internal consistency of the questionnaire was reflected in a scale reliability alpha of 0.71. Overall, students were unsure regarding the process of

NICE CPG development, such as an implementation timeframe of three years (74%) and input from academic medical colleges (50%), drug companies (42%), and lay public (41%). Interestingly, students believe that clinical guidelines influence the availability of drugs (77%) and decrease autonomy of practice (51%). In addition, a third of students (34%) felt that guidelines didn't reduce patient choice.
DISCUSSION (CONCLUSION): We identified a lack of knowledge on processes of guideline development and negative views on aspects of NICE CPGs that may affect concordance in future evidence-based practice. Further research is warranted to qualify these findings and develop an educational framework for implementation of future educational strategies.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline implementer
3. Medical educator

S112– Venous thrombosis prophylaxis in general surgery: Education of medical staff in audit improves compliance with national guidelines

Wendy L. Craig, MPH (Presenter) (Aberdeen Royal Infirmary, Aberdeen, Scotland, United Kingdom); Jennifer Ross, BSc (Aberdeen Royal Infirmary, Aberdeen, Scotland, United Kingdom); Terry O'Kelly, MD (Aberdeen Royal Infirmary, Aberdeen, Scotland, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into medical/nonmedical professional education
BACKGROUND (INTRODUCTION): Recently, the Scottish Intercollegiate Guidelines Network (SIGN) prioritized guideline dissemination and implementation within its work program current strategy, examining means to optimize this. Coincidentally, changes in the postgraduate medical curriculum mean acquisition of audit skills are essential for career progression across specialties. SIGN guideline 62, Prophylaxis of Venous Thromboembolism, outlines best practice; process may be measured reliably by auditing current practice against practice points. Our general surgical unit, working within the Scottish Patient Safety Programme, has implemented a program of junior doctor-led audit, whereby PDSA (plan-do-study-act) cycles examining guideline compliance raise awareness of best practice and provide incentive to improvement.
LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand the utility of PDSA audit methodology as a means to improve guideline implementation, so, compliance.
2. Understand that ownership of audit projects by junior medical staff is a powerful tool towards guideline implementation.
3. Identify simple aids which encourage implementation of guidelines towards compliance.

METHODS: Baseline practice was audited against guideline over 2 cycles (n = 20), confirming feasibility of junior doctor-

led audit and potential for improvement. Core elements for guideline compliance were defined: unless contraindicated, thromboembolic deterrent stockings (TEDS) and prophylactic low-molecular-weight heparin prescribed, adjusted to body mass index (BMI), which had to be clearly documented. Regular, fortnightly audit cycles (n = 20) became incorporated to practice, with public run charts on the ward displaying overall compliance and proportion receiving prophylaxis.

RESULTS: Initially, 80% of patients were receiving prophylaxis (TEDS, heparin), with 55% compliance–lack of BMI documentation automatically leading to lack of evidence of appropriate prescription. BMI documentation was reinforced among nurses. From cycle 4, appropriate prophylaxis was maintained at 95%, with overall compliance 60%-70%: the run chart maintained this steady state.

DISCUSSION (CONCLUSION): PDSA audit was straightforward for junior medical staff to perform, producing rapid results and sustained improvements. Public display of results may facilitate this, providing incentive towards improvement. These audit cycles demonstrate the ease with which guideline implementation may be facilitated, with education in audit methodology a useful by-product.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Medical educator
5. Medical providers and executives

S113– eAGREE Training Tool: An electronic educational tool designed to improve a learner's performance, satisfaction, and self-efficacy with the AGREE II

Melissa C. Brouwers, PhD (Presenter) (McMaster University, Hamilton, Ontario, Canada); Julie Makarski, BSc (McMaster University, Hamilton, Ontario, Canada); Lisa D. Durocher, MSc (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Other guideline implementation
BACKGROUND (INTRODUCTION): AGREE II is the revised standard tool for practice guideline development, reporting, and evaluation. AGREE II is composed of 23 items, six quality domains, and a new User's Manual. Key changes from the original tool include a new scale, changes to half of the items, and new supporting documentation.

OBJECTIVES: To develop, execute, and evaluate the impact of two computer-based educational interventions to accelerate the capacity of stakeholders to use AGREE II.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Learn key features of a successful computerized training tool for application of the AGREE II.
2. Understand how technology can be used to facilitate learning and application of a new tool.

METHODS: Participants (clinicians, practice guideline developers/researchers, and policymakers) will be randomly assigned to one of three groups: 1) Tutorial Only Intervention: participants will review the online overview tutorial of the AGREE II with a virtual coach. 2) Tutorial plus Practice Exercise Intervention: participants will receive the same online overview tutorial of the AGREE II but will also receive a training practice guideline to appraise. The training practice guideline exercise will provide participants with immediate feedback on how their scores compare to expert norms. 3) Control Group: participants will review the PDF version of the AGREE II. All participants will review and assess a test practice guideline with the AGREE II following their assigned interventions.

RESULTS: Compare learner's performance, satisfaction, self-efficacy, mental effort, and time-on-task across the three groups.

DISCUSSION (CONCLUSION): Our research will test innovative computer-based educational interventions to promote the successful and accurate application of AGREE II and will identify strategies that are most effective. Results will facilitate international capacity to apply AGREE II with confidence and to enhance the overall guideline enterprise. The study launch date is February 2010.

TARGET AUDIENCE(S):
1. Users of the AGREE II Instrument
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator

S114– Synthesizing guideline recommendations for practice: Pre-conception care for women with diabetes as a case study

Danielle Mazza, MBBS (Presenter) (Monash University, Notting Hill Melbourne, Victoria, Australia); Maimunah Mahmud (Monash University, Notting Hill, Victoria, Australia)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Other guideline implementation
BACKGROUND (INTRODUCTION): The prevalence of type 2 diabetes mellitus (T2DM) continues to rise worldwide. More women from developing countries who are in the reproductive age group have diabetes, resulting in more pregnancies complicated by T2DM and placing both mother and fetus at higher risk. We aimed to compare the quality and content of current guidelines concerned with the pre-conception care of women with diabetes and to develop a summary of recommendations to assist in the management of diabetic women contemplating pregnancy.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Compare and contrast international guidelines concerning the pre-conception care of women with diabetes.

2. Summarize guideline recommendations for the pre-conception care of women with diabetes.

METHODS: Relevant clinical guidelines were identified through a search of databases (MEDLINE, SCOPUS, and The Cochrane Library) and relevant websites. Five guidelines were identified. Each guideline was assessed for quality using the AGREE instrument. Guideline recommendations were extracted, compared, and contrasted.

RESULTS: All guidelines were assessed as being of high quality and strongly recommended for use in practice. All were consistent in counseling about the risk of congenital malformation related to uncontrolled blood sugar pre-conceptionally, ensuring adequate contraception until glycemic control is achieved, use of HBA1C to monitor metabolic control, when to commence insulin, and switching from ACE inhibitors to other antihypertensives. Major differences were in the targets recommended for optimal metabolic control and opinion regarding the usage of metformin as an adjunct or alternative treatment before or during pregnancy.

DISCUSSION (CONCLUSION): International guidelines for the care of women with diabetes who are contemplating pregnancy are consistent in their recommendations; however, some are more comprehensive than others. Having established current standards for the pre-conception care of diabetic women, there is now a need to focus on guideline implementation through an examination of the barriers and enablers to successful implementation and the applicability of the recommendations in the local setting.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Medical educator
6. Consumers' and patients' representatives

S115– The map of medicine's editorial methodology: How we use CPGs to make our care pathways
Gajan Srikanthan, MBBS (Presenter) (Map of Medicine, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Other guideline implementation
BACKGROUND (INTRODUCTION): The Map of Medicine produces care pathways using its editorial methodology. Our approach to evidence-based literature, practice-based knowledge, and pathway updating is crucial.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Clinical practice guidelines (CPGs) form the backbone of our pathways.
2. Possible CPGs for inclusion are identified by searching 130+ grey (non-indexed) literature producers.
METHODS: For a CPG to be incorporated, its development process needs to demonstrate a rigorous methodology, editorial

independence, and appropriate representation of patient and clinical groups. The Map uses the AGREE instrument to appraise and select quality CPGs. A further appraisal process allows us to rank CPGs into a hierarchy, enabling resolution of clinical conflicts. Recommendations on a clinical topic may vary between CPGs, indicating heterogeneity within the evidence or lack of clinical consensus. The Map does not attempt to define best practice by excluding certain recommendations and including others; instead, we acknowledge the existence of ambiguity by stating all viewpoints. The order in which differing recommendations are displayed is guided by their position in the hierarchy.

RESULTS: The Map searches and appraises secondary literature to identify those articles published since the date of search employed in the highest-ranked CPG. The findings of these articles are incorporated.

DISCUSSION (CONCLUSION): Practice-based information is incorporated by assembling an expert group to advise on the pathway's flow and content, adding knowledge where gaps are present. Contributions by experts are referenced as such. Pathways created with contributors representing Royal Colleges or clinical societies receive accreditation by that organization. The Map also has a Board of Fellows, a group of clinicians who provide input during drafting. Following publication, indexed and grey literature searches continue two-monthly. New literature is assessed for importance and pathways are changed as required.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policymaker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers' and patients' representatives
13. Nurses

S116– Comparison of different methods when aggregating quality indicators issued from guidelines in acute myocardial infarction
Mélanie Couralet (HAS/COMPAQH project, Villejuif, France,); Sophie Guerin (Presenter) (COMPAQH project, Villejuif, France); Marc Le Vaillant (CERMES, Villejuif, France); Philippe Loirat (COMPAQH project, Villejuif, France); Christine Gardel (HAS, Saint-Denis La Plaine, France); Etienne Minvielle (COMPAQH project, Villejuif, France)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines

BACKGROUND (INTRODUCTION): Five quality indicators (QIs) based on validated practice guidelines and assessing quality of care in acute myocardial infarction at discharge are proposed in France. Composite scores (CS) are thought to provide an easier way to understand information, and can be used for accreditation programs, public reporting, and P4P.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To compare different aggregation methods on hospitals ranking in the specific case of acute myocardial infarction process of care.
2. To assess the potential unfairness in ranking due to the use of a specific aggregation method.

METHODS: Four methods for computing a CS were compared: "Indicator average" (IA), "All-or-None" (AON), "Budget Allocation Process" (BAP), and "Benefit Of the Doubt" (BOD). Each method was applied to a dataset of 3259 patients from 56 hospitals. Hospitals were ranked into one of three categories ("+," "=," and "-"), depending on the position of the CS's 95% confidence interval relative to the overall mean. Variability in hospital ranking was assessed by Kappa coefficients.

RESULTS: Ranking varied widely: fair to excellent agreement (kappa = 0.34 to 0.84) was observed across the methods. 33 out of 56 hospitals experienced at least one rank changing. Among 23 hospitals ranked "+" at least by one method and 28 hospitals ranked at least once "-," only 8 kept their ranking across the three other methods.

DISCUSSION (CONCLUSION): The use of different aggregation methods leads to differences in hospitals ranking. As the choice of one specific method can be a source of unfairness for some hospitals, their rationale should be explicitly expressed: IA and AON give the same value to each guideline supporting QIs; BAP graduates the value given to each guideline from experts' opinions; BOD promotes best results issued from the application of guidelines. In any case, transparency toward health professionals and public opinion on the uncertainty inherent to results is required.

TARGET AUDIENCE(S):

1. Guideline implementer
2. Quality improvement manager/facilitator
3. Health care policy analyst/policymaker
4. Medical providers and executives

S117– Development of guideline-based quality indicators for post partum hemorrhage (PPH) to improve quality of care

Mallory D. Woiski, MD (Presenter) (Radboud University Nijmegen, Nijmegen, Netherlands); Hubertina C. Scheepers, PhD (University Medical Center Maastrischt, Maastricht, Netherlands); Fred K. Lotgering, PhD (Radboud University Nijmegen, Nijmegen, Netherlands); Richard Grol, PhD (Radboud University Nijmegen, Nijmegen, Netherlands); Rosella P. Hermens, PhD (Radboud University Nijmegen, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines

BACKGROUND (INTRODUCTION): PPH (1000 cc blood loss) is the major cause of maternal death worldwide and in the top four in the Netherlands. Introduction of a nationwide evidence-based guideline and the course Management Obstetric Emergency Trauma (MOET) did not reduce the incidence rates, suggesting an incomplete implementation. Insight into the actual care is necessary to achieve successful implementation and therefore optimizing quality of care. The method to accomplish this is by developing quality indicators to estimate actual guideline adherence. With this knowledge a tailor-made strategy for implementation can be designed and tested.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To systematically develop a set of quality indicators based on the evidence-based guideline on PPH and MOET instructions.
2. To develop a tool to observe actual guideline adherence in the actual care in PPH with the aim to improve quality of care.

METHODS: A Rand-modified Delphi procedure was performed to develop a set of indicators for high-risk patients on PPH on the field of prevention, diagnosis, treatment, and organization. A panel of experts scored the recommendations extracted from the guideline, MOET instructions, and the literature on a 9-point Likert scale regarding their importance for prevention and treatment of PPH, prevention of maternal morbidity and mortality, and overall efficiency. They were valid if they met the criteria described by Campbell. Next, a consensus meeting and e-mail round for final check was performed.

RESULTS: 49 of the 73 recommendations were selected where 5 covered prevention of PPH, 23 the diagnosis and treatment procedures, 7 covered team operations skills, and 14 the organization of care.

DISCUSSION (CONCLUSION): Good clinical practice is not guaranteed by only the existence of a guideline. Proper implementation could be the key for improvement of quality of care. Therefore understanding the actual care is essential, and the first step is developing quality indicators. This study describes a stepwise systematic development of 49 process and structure indicators to use for observing the actual care in patients with PPH.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Medical educator
7. Health insurance payers and purchasers
8. Allied health professionals
9. Nurses

S118– Development of quality indicators based on clinical practice guidelines: An example with the process of care in breast cancer

Marie Ferrua (Presenter) (Inserm - Projet Compaqh, Villejuif, France); Mélanie Couralet (Villejuif, France); Christine Gardel, DrPH (Haute Autorité de santé, Saint Denis, France); Etienne Minvielle, DrPH (Projet Compaqh - Inserm, Villejuif, France); Catherine Grenier, DrPH (FNCLCC, Villejuif, France)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines
BACKGROUND (INTRODUCTION): To develop a set of quality indicators (QIs) derived from clinical practice guidelines, allowing hospital comparison, measuring the process of care in noninflammatory nonmetastatic invasive breast cancer patients.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Develop a set of quality indicators from clinical practice guidelines.
2. Assess quality indicators through 3 criteria: feasibility of data collection, metrological quality (reliability, validity), and relevance (discriminative power).
3. Evaluate possibilities of national implementation.

METHODS: COMPAQH (Coordination for Measuring Performance and Assuring Quality in Hospitals, French research project) develops and evaluates indicators assessing the quality of hospital care. Regarding the topic of breast cancer, COMPAQH has designed a set of QIs, in partnership with professional bodies. Seven QIs evaluating delays as well as different steps of the process of care have been defined, derived from validated national guidelines. For each indicator, data collection is based on a retrospective analysis of 80 randomly selected medical records in each hospital. Evaluation is performed on a panel of 60 volunteer hospitals.

RESULTS: 3714 medical records were audited. Results are presented with overall mean (%) across the 60 hospitals, minimum score (%) and maximum score (%): Mean (Min–Max). Proportion of patients with a delay from:

-first surgeon consultation to first surgery = 21 days: 59% (17–91);

-first surgery to MRM (Multidisciplinary Review Meetings) = 14 days: 60% (1–99);

-MRM to post-surgery consultation = days: 85% (26–100);

-first surgery to first adjuvant treatment = 30 days (chemotherapy) or = 56 days (radiotherapy): 46% (12–92).

Proportion of patients:

-whose case is submitted to a well-organized MRM: 45% (0–100);

-who receive complete information before surgery: 13% (0–100);

-where mandatory prognostic factors are specified in medical records: 70% (4–99).

DISCUSSION (CONCLUSION): Large variations in practice are observed on the 7 QIs. It should encourage hospitals to promote quality improvement policies. After discussion and actualization with the working group, national implementation should occur in 2011 in every hospital managing breast cancer patients.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Health care policy analyst/policymaker
5. Allied health professionals

S119– From clinical guidelines to pay for performance in UK family practice: The NICE Quality and Outcomes Framework Indicator Programme

Tim Stokes, MBChB (Presenter) (NICE, Manchester, England, United Kingdom); Nicola Bent, Phar (NICE, Manchester, England, United Kingdom); Val Moore, MSc (NICE, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines
BACKGROUND (INTRODUCTION): The need to link evidence-based clinical guidelines to incentives for performance is increasingly being recognized at an international level. The UK has two high-quality national guideline programs, NICE and SIGN, and since 2004 has had a major pay-for-performance scheme for securing higher-quality primary care, the Quality and Outcomes Framework (QOF), which rewards performance against criteria in 4 areas: clinical and health improvement, organizational, patient experience, and additional services. To date, overall achievement has been high and the UK government currently spends about €1bn ($1.5bn; €1.1bn) each year (15% of primary medical care costs) on the framework. NICE was given the role of developing and reviewing the framework's clinical and health improvement indicators from April 2009 with the aim of ensuring relevant evidence-based guideline recommendations are used to inform the development of indicators that are clinically effective and cost-effective.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how clinical guideline recommendations are used in a national quality indicator program for primary care.
2. Share issues and approaches that may be transferable to different health-care systems.

METHODS: The interim process guide for the NICE QOF indicator program has been published. Three meetings of the Primary Care QOF Advisory Committee took place between June 2009 and June 2010. The progressed guideline recommendations were subject to indicator development using a modified RAND appropriateness method and piloting in a representative sample of UK practices.

RESULTS: An overview of the NICE QOF indicator program, how clinical guidelines are used to inform indicator development, and methodological issues encountered with the first cycle of NICE QOF indicator development will be presented.

DISCUSSION (CONCLUSION): The key issues national guideline developers need to consider when linking their work to incentives for performance programs will be discussed.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policymaker
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Allied health professionals
9. Consumers' and patients' representatives
10. Nurses

S120– Implementing guidelines using the Collaborative Method: The example of the depression guidelines implementation project in the Netherlands

Gerdien Franx, MS (Presenter) (Trimbos-institute, Utrecht, Netherlands)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines

BACKGROUND (INTRODUCTION): One popular method to implement guidelines and improve care is the Breakthrough Collaborative Method. Central characteristics of this method are: the use of guidelines, multi-institutional work groups, a national expert team, meetings and learning sessions, data collection, and continuous feedback loops. In this presentation we will illustrate the Breakthrough method and its implementation power, using the Depression Breakthrough Collaborative as an example. This project was initiated from 2006 to 2008 in the Netherlands to take away the gap between daily practice and guideline recommendations. Proper recognition of depression, a reduction of overtreatment of minor and mild depressions with antidepressants, and a reduction of undertreatment of patients with more severe symptoms were the goals to be reached. To do so, teams of professionals implemented a Stepped Care Depression Model, based on the guidelines. Parallel to the Collaborative, a study was performed into the uptake of the guideline recommendations, clinical outcomes, and costs.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the processes, gains, and limitations of the Collaborative method for guideline implementation purposes.
2. Have knowledge of key factors to be considered before opting for this or a similar complex implementation method.
3. Reflect on adaptations of the Collaborative method, so that it can fit to other topics and circumstances.

METHODS: Quality improvement project, using the Breakthrough Collaborative Method (www.ihi.org). Evaluation took place in a quasi-experimental trial. Patient outcomes, care provided, and costs were measured and compared to care-as-usual data. Qualitative data were gathered during a process evaluation.

RESULTS: A total of 550 patients and 81 professionals (10 improvement teams) participated in the study. Analysis of the data ends in May 2010. Preliminary results indicate an improvement in the quality of care, in line with the depression guidelines.

DISCUSSION (CONCLUSION): Preliminary conclusion: Although the Depression Breakthrough Collaborative might have enhanced the implementation of the guidelines, leading to an improvement in the quality of primary and specialty care, the change capacity of the method over a longer period of time and amongst a broader range of professionals remains unclear.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Health care policy analyst/policymaker
5. Health insurance payers and purchasers
6. Medical providers and executives

S121– Quality indicators (QI) in German evidence-based guidelines

Monika Nothacker, MD (Presenter) (Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Thomas Bunk (Agency for Quality in Medicine (ÄZQ), Berlin, Germany); Susanne Weinbrenner, MD (Agency for Quality in Medicine (ÄZQ), Berlin, Germany);Günter Ollenschläger, PhD (Agency for Quality in Medicine (ÄZQ), Berlin, Germany)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines

BACKGROUND (INTRODUCTION): Quality indicators (QI) are a powerful tool to measure guideline implementation. Therefore, within the German guideline assessment instrument (DELBI), translated and adapted to national needs from the AGREE instrument, it is assessed whether guidelines contain quality indicators. In order to reach high assessment values, the guideline has to comprise quality indicators which refer to its key recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify and describe quality indicators within guidelines.
2. Understand advantages and disadvantages of different methods for developing quality indicators within guidelines.

METHODS: German evidence-based guidelines (data from January 2010; update will be done in July 2010) were assessed by 2 independent raters with DELBI with regard to quality indicators. If quality indicators referring to key recommendations were identified, the methodology of development was

analyzed with respect to participation, modality and criteria of assessment, number, reference values, and piloting of quality indicators.

RESULTS: Out of 76 guidelines, 60 (79%) did not contain any QI. 11 guidelines (14%) contained QI which did not refer directly to key recommendations. Only 5 guidelines (7%) comprised QI referring to key recommendations. Different methods of QI development were used. Three National Disease Management Guidelines (NDMG) applied a structured approach with criteria of the German quality indicator assessment tool QUALIFY, which led to 7 to 18 quality indicators. One guideline used the RAND/UCLA methodology (n = 54 QI) and another guideline assessed quality indicators by the so-called "RUMBA" criteria (n = 88 QI). All 5 guidelines used written assessment by the whole guideline group. Only in 2 guidelines were reference values indicated. No piloting of QI was described.

DISCUSSION (CONCLUSION): Up to now the majority of German evidence-based guidelines do not contain QI referring to key recommendations. The few guideline groups deriving QI from key recommendations of guidelines use different methods. Advantages and disadvantages and further needs for development will be discussed.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer

S122– Standardizing criteria for use of guidelines in performance measures development

Mark S. Antman, DDS (Presenter) (American Medical Association, Chicago, Illinois); Beth A. Tapper, MA (American Medical Association, Chicago, Illinois); Carl A. Sirio, MD (West Penn Allegheny Health System, Pittsburgh, Pennsylvania)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): The Physician Consortium for Performance Improvement® (PCPI), convened by the American Medical Association, is a leading developer of evidence-based quality measures for health-care professionals. These measures are typically derived from clinical practice guidelines. Given the methodological inconsistencies found among guidelines, a PCPI advisory committee sought to standardize criteria by which guidelines could be objectively selected for use by PCPI measure development panels.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how the quality of guideline development methodology and documentation affects performance measures development.
2. Identify guideline elements currently required by PCPI for use in measure development and additional "preferred" or "high-priority" elements that will become PCPI requirements in the coming years.

METHODS: Based on the published conclusions of earlier initiatives assessing guideline quality, the committee drafted preliminary PCPI requirements for guideline development methodology and content; less-critical guideline elements were rated "preferred." Selected guidelines used previously as the evidence base for PCPI measures were evaluated against the draft criteria. The committee then revised and finalized the criteria through an informal consensus development process; the criteria were also vetted among PCPI members before implementation.
RESULTS: Less than one half of the previously-used guidelines passed the evaluation against the draft set of PCPI requirements. The committee agreed upon a more flexible set of criteria for initial implementation, with only three methodology and content elements rated "required." Other elements were downgraded to "preferred" or "high-priority" status but were scheduled for gradual reclassification as PCPI requirements in coming years. Options for deriving measures from alternative evidence review documents (conditionally) or from published results of successful quality improvement initiatives were also added to the final criteria statement approved by PCPI members.
DISCUSSION (CONCLUSION): The flexible set of guideline criteria approved for initial implementation will facilitate the objective selection of guidelines for use by PCPI measure development panels. Additionally, with the process proposed for expanding PCPI requirements over time, the PCPI seeks to drive progressive improvements in the rigor of guideline development.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer

S123– Target for improvement: Integrating public, professionals', and managers' perspectives in quality indicator prioritization

Antoine Boivin, MD (Presenter) (Scientific Institute for Quality of Healthcare, Rouyn-Noranda, Quebec, Canada); Pascale Lehoux, PhD (Université de Montréal, Montreal, Quebec, Canada); Réal Lacombe, MD (Agence Santé Services Sociaux Abitibi-Témiscamingu, Rouyn-Noranda, Québec, Canada); Anais Lacasse (Anais Lacasse, Rouyn-Noranda, Québec, Canada); Jako Burgers, PhD (Scientific Institute for Quality of Healthcare, Nijmegen, Netherlands); Richard Grol, PhD (Scientific Institute for Quality of Healthcare, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): Quality indicators are important tools for clinical practice guideline implementa-

tion and can be used for setting measurable and concrete goals for quality improvement. Public deliberation has been proposed as a way to integrate lay and expert knowledge, but it has not been studied in the context of quality indicator (QI) prioritization.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how deliberative methods can be used to prioritize quality indicators for planning and evaluating local quality improvement activities.
2. Discuss preliminary results of the impact of public involvement on quality indicator prioritization.

METHODS: We are conducting a cluster randomized controlled trial within a regional health authority in Canada. We pilot-tested our intervention and developed a "menu" of 36 quality indicators for chronic disease prevention and management from a systematic review of existing indicators. Public representatives (chronic disease patients and healthy adults), health professionals, and managers will be recruited by snowballing technique from six participating communities. A two-step intervention will be conducted between April and June 2010: 1) public expectations for chronic care delivery will be discussed in a public representative meeting; 2) a deliberative meeting will be held to prioritize items from our menu of quality indicators. In intervention sites, public representatives, professionals, and managers will be involved in step #2 deliberative meetings, while control sites will only include health professionals and managers.

RESULTS: Our pilot test demonstrated the feasibility of the intervention. We will report preliminary results of the impact of public involvement on QI prioritization, as well as observations from our process evaluation.

DISCUSSION (CONCLUSION): Deliberative methods can be used to prioritize indicators for quality improvement.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Health insurance payers and purchasers
8. Medical providers and executives
9. Allied health professionals
10. Consumers' and patients' representatives
11. Nurses

S124– Guideline implementation as interprofessional and systems issues

Nancy A. Matthew-Maich PhD (c), MSc (Presenter) (McMaster University, Mohawk College, Hamilton, Ontario, Canada); Jenny Ploeg, PhD (McMaster University, Hamilton, Ontario, Canada); Maureen Dobbins, PhD (McMaster University, Hamilton, Ontario, Canada); Susan Jack, PhD (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Uptake, impact, and outcomes of guidelines (indicators)
BACKGROUND (INTRODUCTION): The Registered Nurses Association of Ontario (RNAO), Canada, in partnership with the Ontario Ministry of Health, has taken a leadership role in developing and implementing numerous guidelines for nursing and heath care professional practice.

This study seeks a better understanding of the complex processes involved in implementing and using the RNAO Breastfeeding guidelines in 3 acute care Canadian hospitals and the interprofessional and system impact.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify the interprofessional impact of guideline implementation.
2. Identify the systems impact of guideline implementation.
3. Understand that guideline implementation needs to be viewed as a systems issue.

METHODS: Constructivist-grounded theory was used to guide the development of a theoretical model of breastfeeding guideline implementation and use in 3 Canadian hospitals. Purposive and then theoretical sampling resulted in the recruitment of 110 health-care providers and clients. Triangulation of data types occurred through in-depth interviews, documents, and field notes and also of participant types (clients, health-care professionals, and administrators). Concurrent data collection/analysis occurred. Two researchers analyzed data and confirmed codes and categories.

RESULTS: The perceived impact of implementing the guidelines includes enhancing inter-professional collaborative relationships and trust; inter-organization and community collaboration and resource sharing; and enhanced organizational image, nursing practice, and unit culture. Nurses perceived that the guidelines improved and supported their practice; fostered recognition of nursing work as valued, credible knowledge work; and enhanced their autonomy, confidence, knowledge, problem solving, and professional pride. Improved consistency of breastfeeding teaching/practices enhanced both patient and nurse satisfaction. Optimal guideline uptake required both hospital and community components to be in place.

DISCUSSION (CONCLUSION): The RNAO Breastfeeding BPGs resulted in important inter-professional and system impact when effective implementation processes were used. Implementation processes illuminated in this study were fundamental to the guideline uptake and impact in these contexts.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policymaker
7. Allied health professionals
8. Nurses

P1– Transition from the pediatric to adolescent health care service for type 1 diabetes mellitus patients

Marta Lopez de Argumedo, MD (Presenter) (Osteba-Health technology assessment, Vitoria, Spain); Jose Ramón Rueda, MD (University Basque Country, Leioa, Spain); Virginia Guillén, PhD (Osteba-Health technology assessment, Vitoria, Spain); Sonia Gaztambide, MD (Osakidetza Health Service, Barakaldo, Spain); Maria Angeles Anton, MD (Osakidetza Health Service, Vitoria, Sri Lanka); Beatriz Corcostegui, PharmD (Osakidetza Health Service, Galdakano, Spain); Alicia Cortazar, MD (Osakidetza Health Service, Barakaldo, Spain); Federico Vazquez, MD (Osakidetza Health Service, Barakaldo, Spain); Itxaso Rica, MD (Osakidetza Health Service, Barakaldo, Spain); Alfredo Yoldi, MD (Osakidetza Health Service, Donostia, Spain); Paz Gallego, NP (Osakidetza Health Service, Barakaldo, Spain); Paloma Jimenez, NP (Osakidetza Health Service, Barakaldo, Spain)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Type 1 diabetes in adolescence presents special challenges. The combination of insulin deficiency with physical and psychological disorders that emerge during normal growth and development makes the management of disease even more difficult.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To highlight the aspects of service delivery associated with good glycemic control in young people with type 1 diabetes.
2. To analyze the barriers for seamless transition from child to adolescent health care services.
METHODS: A systematic review was carried out to identify studies or reports relating to diabetes service delivery or models of care in adolescent population.
RESULTS: Five studies were included: one systematic review, one retrospective cohort study, and three consensus studies. This review showed the various aspects of pediatric diabetes service delivery impact on the glycemic control of children and adolescents with type 1 diabetes such as: access to specialist care, number of visits attended, access to care from a multidisciplinary diabetes team, and regular telephone contact.
DISCUSSION (CONCLUSION): If adolescents were appropriately supported in health services, clinical attendance could be maintained, diabetes control could be improved, and hospital admission rates with diabetic ketoacidosis area could be reduced. We recommend setting at least one transition consultation involving both the pediatrician during childhood and endocrinology specialist, who will address the adolescents with DM 1 in the future, so that treatment guidelines comply with the adolescents' needs.
TARGET AUDIENCE(S):
1. Quality improvement manager/facilitator
2. Health care policy analyst/policy-maker
3. Allied health professionals
4. Nurses

P2– Electronic evidence-based evaluation of thromboprophylaxis in a tertiary care hospital in Brazil

Airton Tetelbom Stein, PhD (Presenter) (Ufcspa/Ulbra/Grupo Hospitalar Conceicao, Porto Alegre, RS, Brazil); André Wajner, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Fernando Waldemar, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Fernanda Fuzinatto, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Grasiele Bess, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Joao Hopf, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Josiane França, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil); Juliana Schuh, MD (Grupo Hospitalar Conceicao, Porto Alegre, Brazil)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Venous thrombo-embolism (VTE) is the leading preventable cause of inpatient death. The objective of the present study was to evaluate the compliance with the 8th Edition of the ACCP (American College of Chest Physicians) VTE guidelines in a tertiary care teaching hospital using the convenience of the local electronic health records (EHR).
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess the implementation of a guideline on venous thromboembolism in a teaching hospital located in a developing country.
2. Identify the compliance based on the 8th edition of the ACCP VTE guidelines.
METHODS: The study was carried out at Hospital NS Conceicao (750-bed tertiary care teaching hospital) and a specific template integrated to electronic health records (EHR) was designed. We have used ACCP's VTE guidelines, which have been published recently, and their recommendations suggest a more aggressive approach to patients with high risk of VTE, especially those with many risk factors or cancer. We randomly selected 262 inpatients for evaluation.
RESULTS: Most patients (54.6%) were at high risk for thromboembolism; 44.7% were at moderate risk and only 0.8% were at low risk. Despite the elevated risks, only 46.2% of the study population was receiving adequate prophylaxis.

There was no difference between medical or surgical patients, 44.2% versus 53.6%, respectively (odds ratio 0.69, 95% confidence interval 0.38-1.24). The most common risk factors were immobilization (70.6%), infection (44.3%), cancer (27.5%), and obesity (23.3%). There were patients who received substandard care, as they had high risk of VTE. Those who had three or more risk factors, and patients with cancer, received prophylaxis in 25% and 18% of cases, respectively.

DISCUSSION (CONCLUSION): In agreement with previous published studies, we found low adherence to best practices. Actions have been carried out on patients with cancer and three or more risk factors. The use of an electronic template integrated in the EHR has been crucial for quality improvement.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Medical educator
5. Health care policy analyst/policy-maker

P3– Existing clinical assessment tools and diagnostic strategies for pulmonary embolism

Natalia Lekerika-Royo, MD (Presenter) (Osakidetza, Berango, Bizkaia, Spain); Eunate Arana-Arri, PhD (Osakidetza, Barakaldo, Spain);
Lorena López-Roldán, MD (Osakidetza, Barakaldo, Spain); Larraitz García Echeberria, MD (Osakidetza, Barakaldo, Spain); Ana García Montero, MD (Osakidetza, Barakaldo, Spain);
Maider Garmendia Zallo, MD (Osakidetza, Barakaldo, Spain); Ainhoa Gómez Bonilla, MD (Osakidetza, Barakaldo, Spain);
Valentin Cabriada Nuño, MD (Osakidetza, 48903, Spain)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): Acute pulmonary embolism (PE) is of interest to physicians of almost all disciplines, as it is encountered across the entire spectrum of clinical medicine. It is estimated that as many as 200,000 patients die annually of PE in the European Union, with similar numbers reported in the USA. In the past, management of acute PE has been characterized by a high degree of complexity and a disappointing lack of efficacy and efficiency.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To summarize the evidence regarding the existing clinical probability assessment tools.
2. To analyze the diagnostic strategies and algorithms.

METHODS: We performed a comprehensive review (overview), including experimental studies, protocols, guidelines, recommendations, and standards for clinical prognostic models and tools and diagnostic algorithms. The databases consulted were MEDLINE, EMBASE, Cochrane, CRD, and NGC; and the websites of the following societies: ESC, ACC, ACEP, BTS, ACP, ATS, CTS and STS. The limits used were: human, subjects, 2000-2009 (December). The studies included were RCTs, meta-analysis and systematic reviews (SR), and clinical guidelines (CPG).

RESULTS: Thirty-nine documents out of 86 met inclusion criteria. The largest numbers of them included no systematic reviews, seven CPGs, nine RCTs, and eight SRs. There was great variability in the description of the risk factors associated with PE. When describing the clinical probability assessment tools, 30 describe the Wells score, 16 describe the Geneva score, and 8 describe others (Minniati, Kline, PIOPED, Perrier, and Wicki). One study even described its own score. All algorithms began by a clinical rule, but only eight of them specify the score to use.

DISCUSSION (CONCLUSION): We have observed a high variability while using different algorithms and by the use of different imaging studies. Those algorithms are not justified by context differences.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policy-maker
7. Health insurance payers and purchasers
8. Medical providers and executives
9. Consumers and patients representatives

P4– "Best Available" evidence does not mean "best" studies are available

Danette Stanko-Lopp, MPH (Presenter) (Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence appraisal
BACKGROUND (INTRODUCTION): To address evidence appraisal related to a variety of clinical questions in an interprofessional atmosphere and to provide simple, transparent evidence appraisal forms, thus improving access to evidence evaluation for point-of-care clinicians.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand evidence appraisal of study for quality.
2. Identify the domain of a clinical question and study designs appropriate for each domain.
3. Determine a quality level/grade based on three factors of domain, study design, and quality appraisal.

METHODS: Evidence appraisal forms were developed for multiple study designs specific to each domain. Each appraisal form includes questions about the validity, reliability, and applicability of a study. Additionally, an appraisal form was created to appraise each study design available or possible for a given domain. The multiple study designs by clinical question domain are captured in a three-dimensional matrix with the resulting quality level from the appraisal.

RESULTS: Evidence appraisal forms are available for all study designs related to each domain of a clinical question–ranging from randomized, controlled trials to case reports and qualitative studies in domains of treatment, diagnosis, and prognosis, to name a few. Based on the domain of the clinical question, then the study design to which the study applies, the user is guided to determine the aspects of the quality of the study as good quality, lesser quality, or lacking validity, reliability, or applicability. This quality level for each study represents the study design for the domain and the quality of the study, and is then easily translated into the body of evidence. On each appraisal form, the user is then able to see the context of each study by the domain of the question, the study design and evidence level, and the quality resulting from the appraisal.

DISCUSSION (CONCLUSION): Although the questions on the forms are common, the approach to the group of forms is the seminal concept, accounting for multiple study designs and multiple types of clinical questions.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Medical providers and executives
7. Nurses

P6– Pervasive developmental disorders: A shared knowledge synthesis

Joëlle M. André-Vert, MSc (Presenter) (Haute Autorité de Santé, La Plaine Saint Denis, France, Metropolitan); Muriel Dhenain, MD (Haute Autorité de Santé, La Plaine Saint Denis, France, Metropolitan)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Evidence sharing
BACKGROUND (INTRODUCTION): Pervasive developmental disorders (PDD) gather a large diversity of clinical situations that require education, health, and social management. As a first step before guidelines development, National PDD policy commissioned the French National Authority for Health (HAS) to draft an evidence synthesis that would be shared among professionals and users' representatives. The purpose was to identify shared key messages on definition, epidemiology, functioning specificities, diagnostic, evaluation tools, and intervention description.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Update current knowledge on pervasive developmental disorders.
2. Present a method to identify shared knowledge among professional and users' representatives.

METHODS: Formal consensus method was adapted. A critical literature review was performed by searching medical and educational databases (MEDLINE, PsycINFO, CINAHL, Co-

chrane Library, Base SantéPsy, SAPHIR, ERIC; 2000-August 2009; English or French). A steering committee drafted the evidence report based on clinical practice guidelines, systematic review, and, if further information needed, on clinical trials and extracted key message proposals. The evidence report was submitted to multidisciplinary peer reviewers and users' associations to complete the report and proposals. An independent rating panel graded each proposal, using a 9-point numerical scale. Evidence synthesis was drafted by the steering committee based on key messages, which were consensually judged conforming to scientific evidence (strong agreement if all marks were 7-9 after two rating tours and one interspersed meeting).

RESULTS: 209/249 proposals received a strong agreement among professionals and users' representatives. No consensus was found on: French classification, exact prevalence of mental retardation associated with PDD, symptoms' evolution during adolescence and adulthood, possible evolution toward psychotic disorders.

DISCUSSION (CONCLUSION): Whereas discussions among professionals and users' representatives frequently point out divergences, the formal consensus method helped them to find consensual key messages. These messages will be spread by initial and continuing education about PDD. This work will allow developing future guidelines on a shared knowledge.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Medical educator
4. Health care policy analyst/policy-maker
5. Medical providers and executives
6. Allied health professionals
7. Consumers and patients representatives

P7– Considerations for development of Generalized Anxiety Disorder Guidelines (GAD) in the US

Jonathan Davidson, MD (Duke University, Seabrook Island, South Carolina); Mark Pollack, MD (Harvard, Boston, Massachusetts); Cheryl Brewster, MHA (Presenter) (EPI-Q, Inc., Oak Brook, Illinois)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Other evidence generation and synthesis
BACKGROUND (INTRODUCTION): No clinical guidelines for Generalized Anxiety Disorder (GAD) have been developed in the United States. Early guideline development in psychiatric conditions outside the US has been hindered by lack of methodological quality and evidence, inadequate translation of evidence into recommendations, and no systematic updating. The GAD Guidelines Assessment (GAD-GA) Working Group was convened to identify recent credible clinical practice guidelines (CPGs), conduct guideline content syn-

thesis and gap analysis, and provide information about critical issues involved with guideline development, use, and impact.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Define the GAD-GA process to examine evidence in existing GAD guidelines.
2. Understand the process for recognizing guideline gaps.
3. Identify areas in need of future evidence generation to inform guideline development.

METHODS: The GAD-GA process included: a MEDLINE search for existing GAD guidelines, limited to the English language, published in the previous 10 years; a systematic guideline assessment for quality, evidence strength and gaps; recommendations to inform future US guideline development.

RESULTS: Thirteen GAD guidelines developed in the last decade were identified primarily from Canada, Europe, Asia, South Africa and the Pacific Rim. Eleven GAD guidelines, available in English, were evaluated and numerous evidence gaps were noted: 1) Limited information on duration of GAD treatment beyond initial 6-12 months. 2) No consideration of important GAD subpopulations (e.g., elderly, medically ill, children, and comorbid with other mental illnesses). 3) Lack of evidence for treatment failures beyond initial therapy. 4) Inadequate acknowledgment for role and duration of non-pharmacologic treatments (i.e., psychotherapy).

DISCUSSION (CONCLUSION): Significant gaps exist in existing international GAD guidelines; efforts in the US should address GAD, considering notable gaps exist.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policy-maker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers and patients representatives
13. Nurses

P8– How can evidence be presented in a graphical form?

Jonathan Nyong, MPH (Presenter) (NICE, Manchester, England, United Kingdom); Tarang Sharma, MPH (NICE, Manchester, England, United Kingdom); Elizabeth J. Shaw, MS (Manchester, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Other evidence generation and synthesis
BACKGROUND (INTRODUCTION): Guideline developers are often confronted with the challenge of summarizing a wide range of disparate studies, particularly in areas where RCTs are lacking. Often, a narrative summary is used but this can be lengthy and may not easily allow understanding and interpretation of the totality of evidence.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To encourage the use of graphical presentation in guideline development.
2. To describe the use of graphical summaries of data.

METHODS: During the development of national guidelines, we wished to present evidence in a graphical format to complement the GRADE and evidence tables.

RESULTS: We considered different graphical representations to summarize and present 69 studies included in an evidence review of ablative therapies in Barrett's esophagus. Initially, we considered the use of a linear representation (that is, a simple diagram showing which interventions were evaluated and, where appropriate, any comparisons). Although this provided a useful model for RCTs, it proved less applicable to the type of evidence considered in the ablative therapies guideline, primarily case series. We therefore used a Venn diagram approach, which allowed the representation of studies with or without a comparison, and the representation of studies with a combination of interventions.

DISCUSSION (CONCLUSION): Graphical representation allowed us to present evidence in a simple and easily understandable way. Although we did not undertake a formal assessment, anecdotally, guideline group members found it extremely helpful in navigating the "evidence landscape." It was also useful for the technical team as an audit tool throughout.

Guideline developers could be more innovative in using graphical representation, especially when there is a wide range of evidence to be considered and statistical methods of summarizing the data are not possible.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses.
2. Guideline developer.
3. Developer of guideline-based products.

P9– Developing the Epilepsies Guideline using network meta-analysis

Vanessa D. Nunes, MSc (Presenter) (National Clinical Guideline Centre, London, England, United Kingdom)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Synthesizing evidence (e.g., meta-analysis, decision modeling)
BACKGROUND (INTRODUCTION): Recent advances in the development of anti-epileptic drugs (AEDs) have warranted an update of the pharmacological management section of the Epilepsies Guideline published by the National Institute for Health and Clinical Development (NICE) in 2004. NICE has commissioned the National Clinical Guideline Centre for Acute and Chronic Conditions (NCGC-ACC) to undertake this work. In addition to the results of conventional meta-analysis

of direct evidence, network meta-analysis (NMA) is a useful tool in determining which intervention is most effective for a particular clinical question.

PURPOSE: To present and discuss the findings of the NMA to be conducted as part of the analyses of the clinical and cost effectiveness of AEDs in the treatment of focal seizures.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To gain understanding of another method of synthesizing evidence (network meta-analysis).
2. To gain an understanding of how to use the findings of a network meta-analysis in addition to the analysis of the clinical and cost-effectiveness of anti-epileptic drugs.

METHODS: To conduct a NMA that will allow the synthesis of data from direct and indirect comparisons and rank the different interventions in order of efficacy for the outcomes: seizure freedom, greater than 50% reduction in seizures, and withdrawal due to adverse events and/or lack of efficacy for both adjunctive treatment and monotherapy. As part of this process, we estimate the level of inconsistency between different comparisons.

RESULTS: The estimates of effect (with credible intervals) for each intervention compared to one another and compared to the baseline risk are presented.

DISCUSSION (CONCLUSION): The NMA meta-analysis is used to complement the analysis of direct comparison evidence. It is particularly useful when some interventions have not been directly compared in an RCT. The estimates of effect provide a useful summary of the results and assist the development of recommendations based on the best available evidence. We also discuss how this case is relevant to the production of future guidelines.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Health care policy analyst/policy-maker

P10– Effectiveness of preconception care for diabetic women in improving congenital malformation rate: A systematic review and meta-analysis

Hayfaa A. Wahabi, MBBS (Presenter) (Al Riyadh, Saudi Arabia); Rasmieh Ayed Al Zeidan, BScPharm (EBHC and KT, King Saud University, KSA, Al Riyadh, Saudi Arabia)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Synthesizing evidence (e.g., meta-analysis, decision modeling)
BACKGROUND (INTRODUCTION): Diabetes is a major health problem in many countries around the world. In some countries in the Middle East, such as Saudi Arabia, 15% to 20% of the adult population are affected by diabetes, with early onset between 25 and 40 years of age, this early onset and high prevalence rate places a considerable number of pregnant

women and their fetuses at risk of developing complications during pregnancy and childbirth. This systematic review addresses the effectiveness of preconception care in preventing congenital malformation, which is one of the known complications of diabetes during pregnancy.

LEARNING OBJECTIVES (TRAINING GOALS):
1. The importance of directing research to address health care priorities to inform health care policy.
2. The importance of employing meta-analysis as an effective tool for informing health care policy.

METHODS: Our search strategy included trials and observation studies that looked into preconception care (glycemic control, education) as compared to no preconception care, taking congenital malformation as an outcome. We performed critical appraisal for all included studies and meta-analysis for studies of low and medium risk of bias.

RESULTS: The search strategy resulted in 1643 citations; 134 abstracts were reviewed, from which 42 full text articles were reviewed, and 27 articles fulfilled the inclusion criteria, including one control trial, one case control study, and 25 cohort studies. Nine studies of low or medium risk of bias included in the meta-analysis showed that preconception care is associated with significant reduction in congenital malformation as compared to antenatal care only (RR 0.19, CI 0.1-0.36, and NNT 18).

DISCUSSION (CONCLUSION): Preconception care is effective in reducing the number of congenital malformations associated with pre-existing maternal diabetes.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Health care policy analyst/policy-maker
6. Medical providers and executives
7. Allied health professionals
8. Nurses

P11– Is alternative massage therapy effective by patient-reported health status in treating depressed people?

Wen-Hsuan Hou, MD (Presenter) (E-Da hospital/I-Shou University, Kaohsiung County, Taiwan ROC); Yung-Chieh Yen (Kaohsiung County, Taiwan ROC)

PRIMARY TRACK: Evidence generation and synthesis
SECONDARY TRACK: Synthesizing evidence (e.g., meta-analysis, decision modeling)
BACKGROUND (INTRODUCTION): Depression is recognized as a major public health problem that has a substantial impact on individuals and society. Despite the availability of drug and psychotherapeutic treatments, much depression remains undiagnosed or inadequately treated. Massage therapy, defined as manual manipulation of soft tissue and with a history extending back several thousand years, may provide

beneficial effects for depressed patients. This study aims to address whether depressive symptoms improve with alternative massage therapy.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To systematically investigate the treatment effects of massage therapy in depressed people by incorporating data from recent studies.
2. To evaluate the clinical effects by self-report of patients' perceived health outcomes, which provide further DISCERN instrument appraising for guideline development.

METHODS: A meta-analysis of randomized controlled trials (RCTs) of massage therapy in depressed people was conducted using published studies from PubMed, EMBASE, PsycINFO, and CINAHL electronic database from inception until July 2008. Hand-searching was also checked for bibliographies of relevant papers. No language restrictions were imposed. Trials with other interventions, combined therapy, or massage on infants or pregnant women were excluded. Two reviewers independently performed initial screen and assessment of quality indicators by Jadad scale.

RESULTS: We included 17 studies containing 831 persons out of 246 retrieved references. Seventeen RCTs were of moderate quality, with a mean quality score of 6.4 (SD 0.85). The pooled standardized mean differences in fixed- and random-effect model were 0.76 (95% CI 0.61-0.91) and 0.73 (95% CI 0.52-0.93), respectively. Both indicated significant effectiveness in the treatment group compared with the control group. The variance between these studies revealed possible heterogeneity (tau square = 0.06, Cochran chi-square = 25.77, df = 16, $P = 0.06$).

DISCUSSION (CONCLUSION): Massage therapy is significantly associated with alleviated depressive symptoms. However, standardized protocols of massage therapy, various depression-rating scales, specified population, and corresponding clinical relevance of the effect in further studies are suggested.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Allied health professionals
5. Consumers and patients representatives
6. Nurses

P12– ADAPTE - Adapting a multidisciplinary guideline on Obstructive Sleep Apnea Syndrome (OSAS)

David J. Bruinvels, MD (Presenter) (Center of Excellence of the NVAB, Utrecht, Netherlands); Carel T.J. Hulshof, MD (Center of Excellence of the NVAB, Utrecht, Netherlands)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Adapting guidelines and sharing work locally and internationally

BACKGROUND (INTRODUCTION): The Netherlands Society of Occupational Medicine (NVAB) has a tradition of guideline development since 1999. The development of a typical monodisciplinary guideline for occupational physicians takes two years. In order to save time and costs, the NVAB started in October 2009 with an ADAPTE process for a monodisciplinary guideline on Obstructive Sleep Apnea Syndrome (OSAS).

OSAS is a major problem in the working population and may contribute to a substantial proportion of work-related problems associated with fatigue. Examples are work accidents, work errors, and productivity loss.

The Dutch multidisciplinary guideline covers most of the work-related problems, but only a minority of the Dutch occupational physicians actually uses the guideline. To facilitate the implementation of the guideline, the NVAB provided a summary, a PowerPoint presentation, and medical case studies for occupational physicians. However, the guideline was still not implemented in clinical practice. Therefore, the NVAB took the initiative to develop a monodisciplinary practice guideline for occupational physicians using ADAPTE.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how ADAPTE may be used to go from a multidisciplinary to a monodisciplinary guideline.
2. Identify problems associated with the implementation of ADAPTE.

METHODS: The ADAPTE process was used to develop a monodisciplinary practice guideline for occupational physicians based on a Dutch multidisciplinary guideline developed by CBO in 2009.

RESULTS: Using ADAPTE, a project plan was written aimed at the development of a monodisciplinary guideline in one year. A guideline project group consisting of three experts, a project secretary, and a project manager was formed. In addition to the CBO guideline, other guidelines were identified. AGREE II was used to assess the quality of the guidelines.

DISCUSSION (CONCLUSION): ADAPTE is a promising tool that may be used to adapt multidisciplinary guidelines to monodisciplinary practice guidelines.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

P13– Adapting ADAPTE: A novel methodology for the development of national clinical practice guidelines

Orit Schieir, MSc (Presenter) (University of Toronto; University Health Network, Toronto, Ontario, Canada); Glen Hazlewood, MD (University of Calgary, Calgary, Alberta, Canada); Pooneh Akhavan, MD (University of Toronto, Toronto, Ontario, Canada); Vivian Bykerk (University of Toronto, Toronto, Ontario, Canada); Claire Bombardier, MD (University of Toronto; University Health Network, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Adapting guidelines and sharing work locally and internationally
BACKGROUND (INTRODUCTION): De novo guideline development is time consuming (2.5-3 years) and requires considerable resources (funds, expertise, manpower). The purpose of the present study was to develop an expedited systematic methodology to produce a Canadian clinical practice guideline for rheumatoid arthritis (RA), based on the ADAPTE framework.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe a new procedure for developing general management guidelines with a large number of key treatment questions.
2. Identify strategies to synthesize recommendations across a large number of published guidelines.
3. Identify strategies to reconcile differences in the evidence grading systems used across guidelines.
METHODS: We assembled a representative working group of regional and local RA stakeholders including rheumatologists, a general practitioner, research methodologists, and patient consumers. Key questions for the guideline were developed a priori and selected by consensus. A systematic review of all clinical practice guidelines (CPG) and consensus statements (CS) regarding the pharmacologic treatment of RA published between January 2000 and July 2009 was performed in MEDLINE, EMBASE, and CINAHL databases and was supplemented by a comprehensive grey literature search. Guideline quality was assessed using the Appraisal of Guidelines Research & Evaluation (AGREE) Instrument and relevant recommendations were abstracted along with levels of evidence using a single grading system. A new decision algorithm was developed and used to determine if each recommendation: could be adapted; could be developed by consensus; or could not be developed without consulting primary literature.
RESULTS: Thirty-six Canadian recommendations were developed from 57 RA guidelines (33 CPG; 24 CS) identified through the systematic search. Results showed that the majority of recommendations, 29 (74%), could be developed by adaptation. Of the remaining recommendations, seven (18%) could be developed by consensus. Only three (8%) recommendations could not be developed without consulting primary literature. The revised timeline for guideline adaptation using this new procedure was one year.
DISCUSSION (CONCLUSION): This is a novel systematic procedure for creating tailored clinical practice guidelines that is cost saving and allows for more rapid guideline dissemination
TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator

P14– Development of clinical practice guideline on osteoporosis and fragility fractures prevention: Challenges and lessons learned

Anna Kotzeva, MD (Presenter) (Catalan Agency for Health Technology Assessment, Barcelona, Spain); Maria-Dolores Estrada, MD (Catalan Agency for Health Technology Assessment, Barcelona, Spain); Maria-Graciela Rodríguez (Catalan Agency for Health Technology Assessment, Barcelona, Spain); Dolors Benítez (Catalan Agency for Health Technology Assessment, Barcelona, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Adapting guidelines and sharing work locally and internationally
BACKGROUND (INTRODUCTION): Fragility fractures in patients with osteoporosis frequently result in subsequent disability and premature mortality. Better detection, management, and follow-up of osteoporosis will improve clinical outcomes and reduce unnecessary health expenditure.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To develop evidence-based recommendations on osteoporosis and fragility fractures prevention to assist both professionals and patients in making informed decisions on the most appropriate health care approach for these conditions.
2. To share our experience regarding the challenges, solutions and lessons learned during the guideline development process.
METHODS: The guideline development group is a multidisciplinary team of all relevant specialists and includes experienced methodologists. These professionals agreed on 33 key clinical questions in PICO format. Bibliographic search for clinical practice guidelines (CPG), systematic reviews, and original studies was performed in: MEDLINE, Cochrane Library, DARE, CMA Infobase, National Electronic Library of Health, National Guidelines Clearinghouse, New Zealand Guidelines Group, and National Library for Health Guidance, to January 2008. For the critical appraisal of the retrieved literature, specific instruments (AGREE and SIGN checklists) were used, and data extraction and synthesis were presented in evidence tables. Recommendations were formulated using SIGN considered judgment methodology. Short versions of the CPG, quick reference guide, algorithms, and patients' decisions aid were also developed.
RESULTS: OF THE 132 RECOMMENDATIONS: 38 (29%) were graded A, 20 (15%) graded B, 14 (11%) graded C, 15 (11%) graded D, and 45 (34%) were good practice points. The CPG recommendations were synthesized in three action algorithms on: 1) fracture risk assessment, diagnostic, and follow-up (primary and secondary prevention); 2) pharmacological management in postmenopausal women with osteoporosis; 3) pharmacological management in patients with prolonged glucocorticoid therapy, men with osteoporosis and premenopausal women with osteoporosis.

DISCUSSION (CONCLUSION): This evidence-based CPG on osteoporosis is an important tool for the decision-making process of Spanish National Healthcare System professionals.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products
5. Health care policy analyst/policy-maker

P15– Good practice for clinical management in Type 1 diabetes patients with special needs

Marta Lopez de Argumedo, MD (Presenter) (Osteba Health Technologies, Vitoria, Spain);
Virginia Guillén, PhD (Osteba Health Technologies, Vitoria, Spain); Sonia Gaztambide, MD (Osakidetza Health Service, Barakaldo, Spain);
Maria Ángeles Anton (Osakidetza Health Service, Vitoria, Spain); Paloma Jimenez, NP (Osakidetza Health Service, Barakaldo, Spain); Paz Gallego, NP (Osakidetza Health Service, Barakaldo, Spain);
Alicia Cortazar, MD (Osakidetza Health Service, Barakaldo, Spain); Federico Vazquez, MD (Osakidetza Health Service, Barakaldo, Spain);
Itxaso Rica, MD (Osakidetza Health Service, Barakaldo, Spain); Alfredo Yoldi, MD (Osakidetza Health Service, Donostia, Spain);
Beatriz Corcostegui, PharmD (Osakidetza Health Service, Galdakano, Spain); Abinaya Rajan, Phar (Osteba Health Technologies, Vitoria, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Adapting guidelines and sharing work locally and internationally
BACKGROUND (INTRODUCTION): Some patients with type 1 diabetes, such as: immigrant population, illiterate population, elderly, mentally handicapped, or those with impaired sensory disabilities need an effort from clinical practitioners and the health system to adapt to clinical management.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To adapt methods and materials for the clinical management of type 1 diabetes in groups with special needs.
2. To adapt devices to suit different scenarios and target populations in the management of type 1 diabetes.

METHODS: Different key aspects have been analyzed, such as: demographic, cultural, environmental attitudes and beliefs, psychological, routine health practices, stage of development, and socioeconomic resources. A group of diabetes education nurses discussed the most suitable methods, educational materials, and devices to be adapted to the population with special needs. These recommendations were reviewed and discussed in the Guideline Elaborating Group and followed by a group of external experts.

RESULTS: Educational materials and different interventions should be adapted to suit different scenarios and target populations. For improving communication between health professionals and immigrant populations, it is advisable to provide automatic translation systems (via telephone or audio-visual methods of open and closed question) and translated graphic self-control diaries. Diabetes education material for people with sensory disabilities should be edited in special formats such as audio, Braille language, or large typography. To facilitate insulinization in elderly, disabled, or patients with impaired sensory disabilities, it would be desirable to provide speaking glucometers and special insulin injectors with tactile pushbuttons for fast or slow insulin and light for the dark.

DISCUSSION (CONCLUSION): In general, patients should be provided with adapted materials in order to acquire good habits in exercise, nutrition, or insulinization to achieve adequate metabolic control and thereby improve the quality of life and prevent complications.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Health care policy analyst/policy-maker
4. Medical providers and executives
5. Allied health professionals
6. Consumers and patients representatives
7. Nurses

P16– Implementation of clinical guidelines at specialized physician clinics

Henrik S. Jorgensen, MD (Presenter) (Herlev University Hospital, Copenhagen, Denmark)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Conflicts of interest in developing guidelines
BACKGROUND (INTRODUCTION): The Danish health care system is a public governmental system that has its hospitals based in five local Regions. The general practitioners (GP) and the specialized practitioners (SP) are privatized but have economical agreements with the Danish Regions. In order to stimulate and enhance the cooperation between hospitals and SPs, and to increase the quality of patient care at SPs, the Danish Regions together with the Danish Association of Medical Specialists conducted a trial in 2009 with five quality tasks (aims): 1) Development of three clinical guidelines for SPs, 2) Monitoring of quality parameters embedded in the guideline, 3) Development of specific schedules for implementation of the quality work in SPs, 4) Evaluation, and 5) General implementation of guidelines in SPs.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify quality markers for implementation of guidelines in specialized clinical practice.
2. Problems with implementation of clinical guidelines for both primary and secondary health care.

METHODS: The project group consisted of three SPs, three HPs, and two secretary staff members. The subjects of the

three clinical guidelines were: gastroscopy; sigmoidoscopy, and colonoscopy, each consisting of 11 subjects, and each subject contained a quality marker for later evaluation. A pilot test was conducted at six SPs and two hospital departments performing endoscopy as their major task. Before and after implementation of the guidelines, quality measurements were conducted.

RESULTS: After implementation of the guidelines, parameters measuring organizational data (e.g., informed consent, instructions for acute medication, availability of resuscitation equipment) improved significantly. Contrarily, parameters measuring clinical data (e.g., documentation of sufficiency of the endoscopic examination) did not improve, since they already were very high in the pre-test.

DISCUSSION (CONCLUSION): Implementation of clinical guidelines in SP enhances the quality parameters with respect to organizational data.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer

P17– Managing conflict of interest in professional societies: An official ATS Policy Statement

Holger J. Schunemann, MD (Presenter) (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Conflicts of interest in developing guidelines
BACKGROUND (INTRODUCTION): Competing interests occur frequently in health care. This results in the potential for conflict of interest (COI). Declaration of COI is insufficient to neutralize potentially harmful effects. Medical professional societies are obliged to develop robust mechanisms to "manage" COI, particularly in the development of official guidance documents.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Conflict of interest in guideline development.
2. Guideline methods.

METHODS: The American Thoracic Society (ATS) utilized existing reviews on COI policies that were prepared for the World Health Organization and for an ATS guideline methodology workshop as the evidence base for this work. The authors reviewed existing policies of selected organizations and other relevant literature. Members of the ATS Documents Development and Implementation Committee and the ATS Ethics and COI Committee collaborated to draft a COI policy. The authors used face-to-face meetings, electronic correspondence, and teleconferences to finalize the draft.

RESULTS: The ATS developed a new policy and procedures for declaration and management of COI. These procedures include: 1) Self declaration of COI, 2) Review of potential participants' COI, 3) Disclosure of COI to project participants, 4) Recusal or excusal from certain decisions or recommendations when appropriate, 5) Disclosure of COI to users of documents or attendees of conferences, 6) Handling disputes in

COI resolution. This policy includes a tool that may be useful for supporting decision-makers in management of COIs as they assess the value and relevance of conflicts.

DISCUSSION (CONCLUSION): The ATS Policy on Management of COI in Official ATS Documents, Projects and Conferences, in effect since March 2008, promises greater transparency. Implications of the adoption of this policy will be discussed.

TARGET AUDIENCE(S):
1. Guideline developer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Health care policy analyst/policy-maker

P18– The development of a cultural competence assessment tool for provincial program standards and guidelines in Nova Scotia

Janet Rhymes (Dartmouth, Nova Scotia, Canada); Kathy Harrigan (Presenter) (Cardiovascular Health Nova Scotia, Halifax, Nova Scotia, Canada); Jill Petrella (Cancer Care Nova Scotia, Halifax, Nova Scotia, Canada); Margaret Peggy J. Dunbar, RD (Halifax, Nova Scotia, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Equity in guidelines
BACKGROUND (INTRODUCTION): How do we embed cultural competence in the development and implementation of practice and management guidelines? In 2006, the Nova Scotia Department of Health (NS DoH) introduced the Cultural Competence Guidelines for the Delivery of Primary Healthcare in Nova Scotia. These require health care delivery that reduces disparities in health services, addresses inequitable access to primary health care, and respectfully responds to the diversity of Nova Scotians. The nine Provincial Programs of the NS DoH recognized the need to act on these guidelines and embed cultural competence into their foundational work of guideline development.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To share a user-friendly assessment and reporting tool for considering culture, gender, and/or health disparities in clinical standards and guidelines.
2. To review the steps in the development, implementation, and acceptance of the assessment and reporting tool.

METHODS: In 2009, a small Provincial Program working group developed a tool to assess the development and revision of guidelines with culture and health disparities in mind. To inform tool development, a national and international search for cultural competence and health equity assessment tools for clinical guidelines was conducted. A sample tool was developed, tested, and refined for ease of use.

RESULTS: The resulting one-page assessment tool includes 18 opportunities for embedding culture, gender, disparity, and/or disadvantage into clinical guidelines. Process opportunities include ensuring that diverse individuals and groups review scoping and/or draft guidelines. Content opportunities

include explicitly searching for evidence by gender, culture, and/or disparity, as well as identifying priority populations in incidence, prevalence, and risk. Outcome opportunities include the need for appropriate gender and cultural identifiers in data collection.

DISCUSSION (CONCLUSION): The tool includes an accompanying reporting form to ensure that all opportunities have been considered and shared. Full implementation of the tool includes training for Program staff on use and application, and building inclusion through collaboration with diverse community health organizations.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator
6. Health care policy analyst/policy-maker
7. Medical providers and executives
8. Allied health professionals
9. Consumers and patients representatives
10. Nurses

P19– The use of diagnostic probability thresholds in the development of a guideline on the assessment and diagnosis of recent onset chest pain of suspected cardiac origin

Angela Cooper, PhD (Presenter) (Royal College of Physicians, London, England, United Kingdom); Jane S. Skinner, MD (Royal Victoria Infirmary, Newcastle upon Tyne, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Grading
BACKGROUND (INTRODUCTION): The National Institute for Health and Clinical Excellence (NICE) commissioned the National Clinical Guidelines Centre for Acute and Chronic Conditions (NCGC-ACC) to produce a guideline on the diagnosis of recent-onset chest pain of suspected cardiac origin. Two separate populations were identified. The first was in people with acute chest pain and suspected acute coronary syndrome (ACS), and the second was in people with intermittent stable chest pain and suspected stable angina.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Examine the limitations of diagnostic studies in developing diagnostic guidelines.
2. Understand the use of diagnostic thresholds for decision-making for clinical recommendations.

METHODS: The guideline development group (GDG) examined systematic reviews of diagnostic studies, and health economic analyses. Measures of diagnostic efficacy were sensitivity and specificity set against the "gold" standard of coronary angiography for coronary artery disease (CAD).

RESULTS: The GDG recommended a low diagnostic threshold for the diagnosis of ACS. For angina, diagnostic probabil-

ity thresholds were derived from estimates of pre-test likelihood of CAD. No studies were identified that examined diagnostic performance of functional or anatomical tests in populations with differing pre-test likelihoods of CAD, and no studies were identified that considered the incremental value of additional testing in people with indeterminate results. Therefore, recommendations were based on 1) diagnostic studies in mixed populations with stable chest pain referred for coronary angiography, 2) health economic modeling, and 3) clinical opinion.

DISCUSSION (CONCLUSION): The development of an algorithm for the diagnosis of stable angina was challenging compared with ACS. Angina is a symptom that is associated with coronary artery narrowing, functional evidence of ischemia, or both, and there is no universal definition. A discussion of the development of diagnostic probability thresholds and their use in formulating recommendations will be presented. The limitations of the diagnostic studies reviewed in this guideline will be discussed.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer

P20– A comparison study of national radiology guidelines

Martin H. Reed, MD (Presenter) (Winnipeg, Manitoba, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): To be effective, radiology guidelines should be comprehensive and, ideally, recommendations for imaging should be consistent among different sets. This study was designed to assess these characteristics.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Compare three major sets of radiology guidelines.
2. Assess comprehensiveness of these guidelines.
3. Assess consistency of these guidelines.

METHODS: The three available sets of national radiology guidelines, the Royal College of Radiologists' (RCR) "Making the best use of clinical radiology services," the American College of Radiologists' (ACR) "Appropriateness Criteria," and Diagnostic Imaging Pathways (DIP) from Australia were analyzed to compare the number of guidelines in each, and their comprehensiveness. One representative section, Gastrointestinal Imaging, was also analyzed in each set to determine how uniform the guideline recommendations are.

RESULTS: The RCR has the most individual guidelines (305). The DIP has 133 and the ACR 129. However, the ACR also has 635 variants of its guidelines. All three sets have sections covering each of the major body regions. Apart from region-specific diseases, all three cover cancer and trauma, and each has a separate section for pediatrics. In the Gastrointes-

tinal sections, there are 8 conditions that have guidelines in all three sets, although each has guidelines for conditions that are not covered in both the other sets. The primary imaging modalities recommended in each of these eight conditions are the same for each set of guidelines, although some of the supplementary modalities are different. Twelve other conditions are covered in two of the sets of guidelines, and the recommended imaging modalities are also the same in both sets of guidelines.

DISCUSSION (CONCLUSION): All three sets of national radiology guidelines provide comprehensive, although not complete, coverage of major clinical conditions requiring imaging, and the recommendations for imaging are generally consistent among the sets.

TARGET AUDIENCE(S):

1. Guideline implementer
2. Developer of guideline-based products
3. Health care policy analyst/policy-maker
4. Medical providers and executives

P21– AVAILABLE: The Spanish Version of AGREE-II Instrument

Ignacio Marin-Leon, PhD (Presenter) (Valme University Hospital, Iberoamericana-GPC Net, Seville, Spain); Marcela Torres, MD (Universidad Nacional, Bogotá, Colombia); Silvia Vidal, MD (Valme University Hospital, Sevilla, Spain); Susana García, MD (IACS- GUIASALUD, Zaragoza, Spain); Rodrigo Pardo, PhD (Universidad Nacional de Colombia, Iberoamericana-G, Bogotá, Colombia); Rosa Rico (Osteba Guiasalud, Vitoria-Gasteiz, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): The AGREE-II instrument is the new release of a well-recognized tool to assess the CPG development process. Former AGREE instruments have been broadly used as a way to analyze guidelines' quality, although some flaws have been highlighted with the experience of use. In order to address those criticisms, the instrument has been reviewed to reinforce its suitability for a more specific diagnosis of CPG strength. To assure the dissemination of the new version and its need to be available for a global scientific community.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Propose the Spanish version of The AGREE-II instrument.
2. Identify a system for cross culture sensitivity analysis.

METHODS: In accord with the language translation protocol provided by the AGREE Consortium, two straight translations from English to Spanish were done. One was done in Latin America (Colombia), and the other in Spain, in order to be cross-culture sensible. By consensus, a candidate unique Spanish version was elaborated from the two translations. This version was reverse-translated to English by two mother-tongue English speakers living in Colombia and Spain;

friendly users of Spanish. Again by an iterative process, the Spanish version was reworded by consensus to match the original English version.

This second candidate Spanish version was circulated within the scientific community familiar with the field of guidelines from the 19 countries that recognize Spanish as the main language. They were asked, with a specific questionnaire, about how comfortable they feel with the proposed version, and for suggestions for changes.

RESULTS: A face validated Spanish version of the AGREE-II instrument is available to use for the international scientific community.

DISCUSSION (CONCLUSION): The global collaboration yields a large diffusion of knowledge byproducts.

TARGET AUDIENCE(S):

1. Guideline developer
2. Developer of guideline-based products
3. Medical educator
4. Medical providers and executives
5. Allied health professionals
6. Consumers and patients representatives
7. Nurses

P22– Development and appraisal nursing clinical practice guidelines in Taiwan

Kee-Hsin Chen (Presenter) (Taipei Medical University-Wan Fang Hospital, Taipei, Taiwan ROC); Chin-Chu Kao (Taipei Medical University-Wan Fang Hospital, Taipei, Taiwan ROC); Hsueh-Erh Liu (Chang Gung University, Tao-Yuan, Taiwan ROC); Wen-Ta Chiu (Taipei Medical University, Taipei, Taiwan ROC); Ken N. Kuo (National Health Research Institutes, Miaoli, Taiwan ROC); Chiehfeng Chen, MD (Taipei Medical University-Wan Fang Hospital, Taipei, Taiwan ROC)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline appraisal
BACKGROUND (INTRODUCTION): Implementation of clinical practice guidelines (CPGs) can reduce medical variation and enhance work effectiveness. Results of this study can serve as the preliminary quality information for the CPGs' configuration, and guide subsequent development and policy-making.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To share the experiences of nursing CPGs development in Taiwan.
2. To compare the results of the six AGREE domains for Taiwan and international CPGs.

METHODS: Since 2008, the Taiwan DOH has been delegating development of CPGs on six health topics. By August 2010, six CPGs had been completed. The AGREE instrument is used as the quality assessment tool. We organized the Guideline Developing Groups (GDGs) for CPGs: 131 experts with specialties in various fields were called to join efforts to develop CPGs.

RESULTS: Overall, 135 recommendations are formed; 23 of these are rated as grade A, 56 as grade B, 32 as grade C, and 24 as grade D. The average AGREE scores for the six major domains were 84, 42, 54, 78, 19, and 40.

DISCUSSION (CONCLUSION): The two scopes, knowledge synthesis and clinical application, can be preliminarily defined in this study. In terms of overall trends, the technology of knowledge synthesis is gradually reaching maturity, but more efforts are required for knowledge application, and the development of CPGs serves precisely as the bridge between the two. We suggest: 1) Opinions from all stakeholders, especially patients, should be considered to improve the content of the guideline; 2) Simple care flow charts, health education resources, audit forms, and other package tools in CPGs can facilitate clinical application.

TARGET AUDIENCE(S):
1. Caregivers, Nursing teachers
2. Guideline developer
3. Nurses

P23– Development of Korean Guideline Instrument for evaluation

Namsoon Kim, MD (Presenter) (Donggul, Gyeongju, Gyeongsangbuk-Do, South Korea);
Sooyoung Kim, PhD (Hallym University, Medical College, Seoul, South Korea)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline appraisal

BACKGROUND (INTRODUCTION): In Korea, many guidelines have been developed by using foreign studies and applying adaptation process. The purpose of our study is to develop guideline evaluation instruments that will cover both de novo and adaptation process and be more appropriate for Korean context.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify different methods used that can improve guideline development and quality.
2. Understand how technological tools can be incorporated to enhance guideline development.

METHODS: We reviewed AGREE I, AGREE II, and other guideline evaluation instruments. Scope, items, and scale were selected through multistage consensus process. We also did field testing and refinement procedures. Finally, we evaluated several Korean guidelines and analyzed data for reliability and validity.

RESULTS: We selected 23 items for de novo process through the first consensus meeting. Now we are preparing the next consensus meeting for adaptation process. After we selected items and scale, we will choose 20 appraisers and evaluate guidelines developed in 5 recent years. Analysis for reliability and sensitivity will be done.

DISCUSSION (CONCLUSION): This is the first time a guideline evaluation instrument covering both de novo and adaptation process has been developed. We hope this instrument can improve the consistency and quality of guideline development in Korea.

TARGET AUDIENCE(S):
1. Guideline developer

P24– Finding guidelines to AGREE on: A quality appraisal of guidelines on the pharmacological treatment of rheumatoid arthritis

Glen Hazlewood, MD (University of Calgary, Calgary, Alberta, Canada); Orit Schieir, (Presenter) (University of Toronto; University Health Network, Toronto, Ontario, Canada); Pooneh Akhavan, MD (University of Toronto, Toronto, Ontario, Canada); Vivian Bykerk, MD (University of Toronto, Toronto, Ontario, Canada); Claire Bombardier, MD (University of Toronto; University Health Network, Toronto, Ontario, Canada)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline appraisal

BACKGROUND (INTRODUCTION): Guideline quality affects the credibility and interpretability of clinical recommendations. The purpose of the present study was to appraise the quality of existing clinical practice guidelines (CPG) and consensus statements (CS) regarding the pharmacological treatment of rheumatoid arthritis (RA).

LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess the quality of existing guidelines regarding pharmacologic treatment of rheumatoid arthritis.
2. Assess the applicability of the AGREE instrument for the appraisal of consensus statements.
3. Improve search strategies for identifying clinical practice guidelines and consensus statements for guideline adaptation.

METHODS: We performed a systematic search for CPG and CS in RA published between January 2000 and July 2009 in MEDLINE, EMBASE, and CINAHL databases and the grey literature. Guideline quality was assessed by two raters using the Appraisal of Guidelines Research & Evaluation (AGREE) Instrument. AGREE consists of 23 questions across six domains: scope and purpose, stakeholder involvement, rigor of development, clarity/presentation, application/editorial independence, and a single-item qualitative overall assessment of "Recommend (R)," "Recommend with Provisos (RWP)," and "Would Not Recommend (WNR)." Inter-rater reliability was assessed using ICC and Kappa statistics, and a descriptive analysis of the quality of CPG and CS was performed.

RESULTS: Inter-rater reliability was excellent for all AGREE domain scores (ICC ranging from 0.74 to 0.93) and for the overall assessment (Kappa = 1). CPG had higher overall quality scores than CS: R (CPG: 12/33 [36%] vs. CS: 0/24 [0%]), RWP (CPG: 17/33 [52%] vs. CS: 17/24 [71%]) and WNR (CPG: 4/33 [12%] vs. CS: 7/24 [29%]). Both CPG and CS scored highest for "scope and purpose" and "clarity and presentation" and lowest for "applicability" and "editorial

independence." Only 16/33 (48.5%) CPG vs. 23/24 (96%) CS were published in journals.

DISCUSSION (CONCLUSION): The quality of published guidelines in RA is variable, with few guidelines rating as high quality. CS were rated as lower than CPG. Less than half of CPG are published in journals, suggesting that broader search strategies for identifying CPG are warranted.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Health care policy analyst/policy-maker
8. Medical providers and executives
9. Consumers and patients representatives

P25– Simultaneous development of national sets of guidelines and quality indicators in the Czech Republic

Milos Suchy, MD (Presenter) (Healthcare National Reference Centre, Pilsen, Czech Republic, Czech Republic); Petr Tuma, MD (Healthcare National Reference Centre, Pilsen, Czech Republic, Czech Republic); Pavel Kozeny Eng, PhD (Healthcare National Reference Centre, Pilsen, Czech Republic, Czech Republic); Petr Klika, MSc (Institute of Biostatistics and Analyses at the Faculty of Medicine and the Faculty of Science of the Masaryk University, Brno, Czech Republic), Ladislav Dusek, PhD (Institute of Biostatistics and Analyses at the Faculty of Medicine and the Faculty of Science of the Masaryk University, Brno, Czech Republic)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline appraisal

BACKGROUND (INTRODUCTION): The Healthcare National Reference Centre (HNRC) was originally established to support health care funding in the Czech Republic. Later, this institution undertook more tasks focused on development of national sets of clinical guidelines and quality indicators. To establish an effective tool for the Czech health care system, we harnessed the experience of many competent institutions in the sector of guidelines and quality indicators development. Our system is based on the principle of systematic usage of some of the existing components in the Czech health care system, uses its own methodology of guidelines and indicators development, EBM methodology, process algorithmization, and systematic derivation of the quality indicators from clinical criteria and clinical recommendations.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand a new methodology with joined "life cycle" of guidelines and indicators development.

2. Identify weaknesses in the health care system and its improvement by using clinical criteria.

METHODS: The Czech health care system uses comprehensive national "administrative" databases such as insurance billing data or national health care statistics, but also many extensive "clinic-specific" databases such as national cancer database and other clinical registers for cardiology, hip replacements, etc. We use some of these data for designing and testing quality and performance indicators in coordination with clinical guidelines development. We plan to use some of these "clinic-specific" databases in the near future for the same purposes.

RESULTS: It has been two years since we started assessing significant benefits, especially in cancer prevention, and introducing arrangements enhancing care in some specialties while simultaneously developing guidelines and indicators. The poster presents the general framework of our methodology and some of the examples of joined guidelines and indicators, focusing on weaknesses in the health care system and its improvement.

DISCUSSION (CONCLUSION): In our experience, the joined development of national sets of clinical guidelines and quality indicators and its implementation yield measurable benefits in improvement of the health care system

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policy-maker

P26– A methodology to grade agreement in consensus groups

Monica Patricia Ballesteros, MD (Colombian National Cancer Institute, Bogotá, Colombia); Giancarlo Buitrago Gutierrez, MD (Colombian National Cancer Institute, Bogotá, Colombia); Licet Villamizar (Colombian National Cancer Institute, Bogotá, Cundinamarca, Colombia); Felipe Zamora Rangel, MD (Colombian National Cancer Institute, Bogotá, Colombia); Daniel Anzola, MD (Colombian national Cancer Institute, Bogotá, Colombia); Ricardo Sánchez, MD (Presenter) (Colombian National Cancer Institute, Bogotá, Colombia)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development groups/panels/committees

BACKGROUND (INTRODUCTION): Several options have been proposed to grade agreement or disagreement in expert consensus for the development of clinical practice guidelines (CPG).

LEARNING OBJECTIVES (TRAINING GOALS):

1. Present a new methodology to grade agreement in formal consensus with ordinal scales or a reduced number of participating experts.
2. Present our experience with the use of this new methodology.

METHODS: Considering the ordinal nature of the scales proposed to grade agreement in formal consensus groups, and that in our country the availability of experts to take part in such groups is limited, we propose a methodology that integrates these characteristics (ordinal nature of grading scales and limited size groups). We have developed a system based in non-parametric methods (Kruskal Wallis test with post hoc comparisons) using the following decision parameters for the absence of consensus: no statistical difference in the punctuation assigned to items of a question with only two answer choices; no statistical difference in the punctuation assigned to more than two of the choices with the highest vote count in a question with more than two choices. If there are options with medians under six (considering the confidence intervals), these are not included in the consensus declaration.

RESULTS: This methodology has been used in five consensuses on oncology topics. The number of participants has varied between 12 and 84 experts. This method has proved efficient to grade expert agreement within the context of generation of recommendations for clinical practice guidelines.

DISCUSSION (CONCLUSION): This methodology is useful to grade agreement in formal consensus with ordinal scales or a reduced number of participating experts.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policy-maker
9. Health insurance payers and purchasers
10. Medical providers and executives
11. Allied health professionals
12. Consumers and patients representatives
13. Nurses

P27– Guideline development group processes: How should guideline development groups function?

Elizabeth J. Shaw, MS (NICE, Manchester, England, United Kingdom); Kathryn Chamberlain (Presenter) (NICE, Manchester, England, United Kingdom); Lynda Ayiku (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development

SECONDARY TRACK: Guideline development groups/panels/committees

BACKGROUND (INTRODUCTION): Guideline developers are embedded in an evidence-based world – however, how many of the processes used to develop clinical practice guidelines are themselves evidence based? There is a lot of methodological and empirical evidence on the methods of guideline development, such as systematic reviewing and evidence synthesis, but there appears to be a significant gap in the process of guideline development specifically related to group functioning and decision-making.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To review published evidence on group processes associated with the development of clinical practice guidelines (including recruitment and selection of members, training and support, chairing and facilitation, and organization).
2. To evaluate studies of interventions to improve the functioning of guideline development groups.

METHODS: [This review is ongoing, so the methods and results are based on preliminary work only.] We undertook a focused review on relevant published literature. We did not consider a comprehensive, systematic review appropriate due to the expected heterogeneity of literature, but we did aim to identify key articles specifically related to group processes in the development of evidence-based guidelines and any associated interventions.

RESULTS: Preliminary results suggest that although there is some empirical evidence describing group processes, there is very little comparing different approaches to, or theoretical models of, group functioning related to guideline development. Where possible, we will illustrate identified barriers and facilitators through examples from a national guideline program.

DISCUSSION (CONCLUSION): Group decision-making is well researched in the wider arena of the organizational, management, and social sciences. However, we do not yet know which models or theories apply to guideline development groups, and more importantly, which interventions or approaches can be used to improve their functioning.

TARGET AUDIENCE(S):

1. Guideline developer
2. Medical educator

P28– Optimization of the participation of patients, clinicians and methodological group in the consensus of clinical recommendations

Virginia Guillén, PhD (Osteba Health Technologies, Vitoria, Spain); Marta Lopez de Argumedo, MD (Presenter) (Osteba Health Technologies, Vitoria, Spain); Eva Reviriego, PhD (Osteba Health Technologies, Vitoria, Spain); Sonia Gaztambide, MD (Osakidetza Health Service, Barakaldo, Spain); Alfredo Yoldi, MD (Osakidetza Health Service, Donostia, Spain); Alicia Cortazar, MD (Osakidetza Health Service, Barakaldo, Spain); Beatriz Corcostegui, PharmD

(Osakidetza Health Service, Galdakano, Spain); Federico Vazaquez, MD (Osakidetza Health Service, Barakaldo, Spain); Itxaso Rica, MD (Osakidetza Health Service, Barakaldo, Spain); Paloma Jimenez, NP (Osakidetza Health Service, Barakaldo, Spain); Paz Gallego, NP (Osakidetza Health Service, Barakaldo, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development groups/panels/committees
BACKGROUND (INTRODUCTION): New models of communication between clinicians, methodological group, and patients in the development of the Clinical Practice Guidelines (CPG) diabetes type 1 are needed to incorporate the views of all of them.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To optimize the Guideline Elaborating Group (GEG) consensus in the decision-making seeking the highest degree of rigor and efficiency.
2. To make the whole process of developing clinical practice guidelines (CPG) transparent and participatory.
METHODS: A joint effort has been performed between nine clinicians, six patients, and two methodological advisors for elaborating clinical recommendations. The CPG consisted of 57 clinical questions about "Management of type 1 diabetes mellitus." We analyzed the technological resources used for communication within the GEG in each phase of the CPG developing process: 1) Formulation of clinical questions: A first meeting was conducted with the entire GEG collecting suggestions via e-mail and phone; 2) Formulation of recommendations: 15 face-to-face meetings were done with all the GEG members to answer each clinical question and to discuss every aspect of the available evidence; 3) Guideline drawing-up: A website was designed and used in order to share all draft documents. A discussion web forum was created to ensure review and comments about the evidence and the recommendations. Suggestions were provided via e-mail and via telephone as well; 4) Review by clinician expert advisors: Their comments and suggestions were provided via e-mail and via discussion forum. A survey was carried out about users' satisfaction with these tools for improving the communication between the members of the GEG.
RESULTS: Different strategies of communication were used for the development of this CPG in diabetes type 1. A higher response rate and satisfaction by GEG was achieved by participating in a web page and discussion web forum versus other systems like telephone, mail, or meetings.
DISCUSSION (CONCLUSION): Different communication strategies are suggested to improve participatory consensus for the development of clinical recommendations.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Developer of guideline-based products
4. Health insurance payers and purchasers

P29– Getting the most from your information professionals: An overview of the role of information specialists in evidence-based guidance development at the National Institute for Health and Clinical Excellence (NICE)
Lynda Ayiku (Presenter) (NICE, UK, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): This poster will provide an overview of the role of information specialists in the key stages of evidence-based guidance development at NICE. The poster aims to provide an example of how information professionals can play a key role in the development of evidence-based guidance.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To provide an overview of the roles that information specialists play in the development of evidence-based guidance at NICE.
2. To use the activities of NICE information specialists to provide an example of how information professionals can play a key role in evidence-based guidance development.
METHODS: The Information Specialist role in NICE guidance development is derived from the following sources: *Centre for Reviews and Dissemination, University of York (2009) Systematic Reviews: Guidance for undertaking reviews in health care (Chapter 1.3.1 - Identifying research evidence for systematic reviews: http://www.york.ac.uk/inst/crd/pdf/Systematic_Reviews.pdf); *Scherrer CS et al. The evolving role of the librarian in evidence-based medicine. Bulletin of the Medical Library Association 1999;87:322–8.
RESULTS: Information specialists are involved in the following key guidance development stages:
- Topic selection – by assisting with the identification and selection of appropriate topics for guidance.
- Scoping – by performing scoping searches to identity knowledge gaps in the current evidence base on proposed guidance topics.
- Guidance development – by performing literature searches to identify the evidence base for guidance topics.
- Guidance publication – by recording search details in the appendices of published guidance.
- Guidance review – by undertaking scoping searches and literature searches to help determine if significant new evidence is available for existing guidance.
- Updating guidance – by performing literature searches to identify the new evidence base for guidance topics.
DISCUSSION (CONCLUSION): The NICE Information Services team comprises 19 qualified information specialists. They provide information support to aid evidence-based NICE guideline development. Information support is provided for a range of NICE guidance including: Clinical Guidelines, Interventional Procedures, Public Health Guidance, Quality Stan-

dards, Quality and Outcomes Frameworks, and Technology Appraisals.

TARGET AUDIENCE(S):
1. Information professionals
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products

P30– Make a decision: Guideline development or not on fibromyalgia?

Anne Pauchet-Traversat, PhD (Presenter) (Haute Autoité de Santé, Saint-Denis La Plaine, France); Anne-Line Couillerot-Peyrondet (Haute Autorité de Santé, Saint-Denis La Plaine, France); Stéphanie Leclerc (Haute Autorité de Santé, Saint-Denis La Plaine, France); Stéphanie Leclerc (Haute Autorité de Santé, Saint-Denis La Plaine, France); Brigitte Le Cossec (Haute Autorité de Santé, Saint-Denis La Plaine, France)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Terminology, classification, and treatment of fibromyalgia are controversial issues. However, fibromyalgia is a genuine, severe, and incapacitating disorder.

To provide health authorities with the information needed to make decisions on the best practices and opportunity to develop or not guidelines on fibromyalgia.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Define different scenarios used that can improve decision on guideline development.
2. Understand how multiple surveys can be incorporated to make a decision on guideline development or not.

METHODS: Four main phases of the decision process were performed: systematic review of existing guidelines, meta-analyses, RCTs (1990-2010); interview of 10 patients and 5 experts; carry out studies to 1) describe prevalence, characteristic symptoms, drugs and treatment (two databases on drugs and one on standardized discharge case record), 2) describe actions to specialized care for pain (questionnaire), 3) describe multidisciplinary rehabilitation for fibromyalgia (public consultation online); appraisal of applicability to French context (list of criteria).

RESULTS: In 2008, 80% of patients were female. There were 670,000 drug prescriptions (50% of patients had used analgesics, 30% antidepressants, 25% antiepileptic) and 1300 hospital stays per year; 332 patients (pain duration 3 years: 61%) were new consultants in specialized care for pain (2 weeks). The proposed interventions were spa and relaxation (80%), psychologists or psychiatrists (65%), aerobic endurance training (57%), and patient education (54%). Five options were defined from critical review of guidelines, literature, and surveys: health information approach, singular approach for fibromyalgia, common approach for fibromyalgia and chronic fatigue syndrome, medically unexplained symptoms approach, and management of chronic pain. Criteria were used to reach consensus (acceptability, encourage good practices, proper use of health services by professionals and users, feasibility).

DISCUSSION (CONCLUSION): There is insufficient evidence to recommend a particular approach for guidelines on fibromyalgia. Priority for work on health information and definition of indicators in relation to the prevalence, treatments, good practices, cost of illness, and social support, are needed.

TARGET AUDIENCE(S):
1. Guideline developer
2. Health care policy analyst/policy-maker
3. Allied health professionals
4. Consumers and patients representatives

P31– Ten years history of CPGs (Clinical Practice Guidelines) development in Japan

Hiromichi Suzuki (Presenter) (International Medical Information Center, Tokyo, Japan); Takeo Nakayama, PhD (Kyoto University Graduate School of Public Health, Kyoto, Japan); Kiichiro TSUTANI, PhD (The University of Tokyo, Tokyo, Japan)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): The number of CPGs being developed has increased in recent 10 years, with professional societies/associations playing a central role. While arguments that the development of CPGs requires too much time and labor have been decreasing, greater effort is being directed toward the evaluation and revision of CPGs and to expanding the scope of CPG applications through their use as rationale for assessing the quality of health care and so on.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To introduce our history of CPGs development and social impacts.
2. Review and evaluation of CPGs developed in a decade in Japan.

METHODS: In Japan, a decade has elapsed since the Ministry of Health, Labour and Welfare (MHLW) began to support the development of CPGs. The present study was undertaken to review the past decade and to identify open issues, etc., by analyzing topics related to CPG development that were previously identified as being problematic.

RESULTS: First we summarized the history of CPG development, etc., in Japan. The topics pertaining to social impacts, issues, etc., involved in CPG development can be summarized as follows: 1) topics related to the promotion of EBM and systems and policies for CPG development, 2) topics related to methods of CPG development, 3) topics related the contents of developed CPG, 4) topics related to media report, and 5) other topics.

DISCUSSION (CONCLUSION): At an earlier meeting convened by the MHLW, the development of CPGs was prioritized. Of the 47 target diseases included in this priority list,

19 diseases are now covered by CPGs, regardless of format. Of these CPGs, eight have revised versions. For CPGs on three diseases, English versions are available from overseas. The primary emphasis of professional societies should be to facilitate the utilization, spread, and publication of more complete CPGs.

TARGET AUDIENCE(S):
1. Guideline developer
2. Consumers and patients representatives

P32– An innovative structural model for the development of and adoption of a clinical practice guideline (CPG)

Linda Pinsonneault, MD (Presenter) (AETMIS, Montreal, Québec, Canada); Jolianne Renaud, MSc (AETMIS, Montreal, Québec, Canada);
Joëlle Mimeault, MSc (Conseil du Médicament, Québec, Québec, Canada);
Jean-Marie Moutquin, MD (AETMIS, Montreal, Québec, Canada); Véronique Déry, MD (AETMIS, Montreal, Québec, Canada)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Factors related to the development process of CPGs influence their adoption and subsequent implementation (e.g., cross-organizational representation, perceived scientific and clinical credibility). It is recognized that consideration of these factors is not sufficient for a successful implementation, an important barrier being the inability to timely introduce organizational changes required to support the recommended practice. Involvement of decision-makers in CPG development can act as a facilitator since it may induce organizational changes needed for implementation. It can also act as a barrier as it may decrease perceived objectivity and credibility of its content. This dilemma poses a real challenge.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe an integrative model to attempt to achieve both credibility and decision-makers' involvement.
2. Discuss the processes involved in the proposed model.

METHODS: The innovation of the model lies in the nature and composition of the workgroups as well as in the various processes involved. Four workgroups are engaged in the process, one of them composed of decision-makers. Each of these groups participated in separate group meetings and discussions. All workgroups share the discussion on clinical needs, questions, and recommendations in a Forum of Partners, allowing each workgroup contribution to be integrated in the orientations and recommendations of the CPG.

RESULTS: This process is already producing a strong mobilization and commitment of the various stakeholders; some decision-makers at the policy and professional levels having started planning at the outset how to adapt their organization and activities to the introduction of the future CPG.

DISCUSSION (CONCLUSION): Engaging upfront and in a transparent fashion decision-makers in addition to primary targets of CPG, experts and other stakeholders allow for a coordinated mobilization and constitute an avenue that holds many promises.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Health care policy analyst/policy-maker

P33– Development of clinical practice guidelines for children with autism spectrum disorder in Singapore

Raymond Huang, MSc (Presenter) (Ministry of Health, Singapore, Singapore); Keng Ho Pwee (Ministry of Health, Singapore, Singapore)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): There is significant variance in practices in the provision of care for children with autism spectrum disorder in Singapore, and parents of these children are increasingly seeking alternative therapies, which might not be supported by scientific evidence. In 2008, the Ministry of Health, Singapore and the Academy of Medicine, Singapore, embarked on a collaborative project to develop the first evidence-based guidelines for health care professionals caring for children with autism spectrum disorder.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand how a unique multi disciplinary workgroup can be formed to develop guidelines for autism spectrum disorder.
2. Understand how to collaborate with a large multidisciplinary workgroup to develop new guidelines.

METHODS: A multi-disciplinary workgroup was set up to develop these guidelines. The workgroup consisted of pediatricians, primary care physicians, psychiatrists, psychologists, occupational therapists, speech and language therapists, and special educators. The workgroup members attended guideline development courses conducted by SIGN and the Ministry of Health. Major issues and variations in local practice were first identified and key questions were generated to address them. With the aid of an information specialist, the technical review committee conducted literature searches for relevant evidence to answer the key questions. The evidence was critically appraised, summarized, and presented to the entire workgroup at meetings. After the workgroup had come to a consensus on the evidence to be included in the guidelines' evidence base, an editorial committee drafted the guidelines with support from secondary editors from the Ministry of Health.

RESULTS: The final draft was recently sent out to other professional organizations involved in the care of children with autism spectrum disorder for peer review. Subsequently, the peer review comments will be addressed before the guidelines are finalized.

DISCUSSION (CONCLUSION): These are the first evidence-based guidelines developed in conjunction by the Singapore Ministry of Health and the Singapore Academy of Medicine. The guidelines are scheduled to be published and launched publicly by mid-2010.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Health care policy analyst/policy-maker
5. Allied health professionals

P34– Guideline development at the American Academy of Otolaryngology—Head and Neck Surgery: 2005-2010

Milesh M. Patel, MS (Presenter) (AAO-HNS, Alexandria, Virginia); Richard M. Rosenfeld, MD (SUNY Downstate Medical Center, Brooklyn, New York)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Clinical practice guideline development on otolaryngology-head and neck surgery-related topics is evolving and has continued to grow in the last few years. In 2005, the American Academy of Otolaryngology—Head and Neck Surgery (AAO-HNS) began development on the first of five evidence-based multidisciplinary clinical practice guidelines based upon an explicit, transparent, a priori protocol developed by Rosenfeld and Shiffman.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To highlight the challenges to guideline development through modifications that improve clarity or transparency.
2. To summarize the AAO-HNS guideline development method.
METHODS: Clinical practice guidelines are structured around three teleconferences and two face-to-face meetings. Major process changes are deliberated through an oversight committee each year and are documented alongside the original protocol. These changes are then incorporated into future guideline products.
RESULTS: Process changes have been made to the panel composition, systematic literature search, guideline structure including evidence profiles, and external guideline review. To improve clarity, evidence profiles, which describe the evidence quality, benefit, harm, cost, and any role of patient preferences, are constructed as a separate entity at the end of the supporting text. To improve transparency, any intentional vagueness by the panel is then embedded in the evidence profile.
DISCUSSION (CONCLUSION): High-quality clinical practice guidelines at the American Academy of Otolaryngology—Head and Neck Surgery are developed within one year

from conception. However, process changes may occur at any point in the guideline development process. Guideline developers should be constantly vigilant for areas that may improve transparency or clarification.
TARGET AUDIENCE(S):
1. Guideline developer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator

P35– Involving physiotherapy education in guideline development

Heli Kangas, MSc (Finnish Association of Physiotherapists, Helsinki, Finland); Camilla Wikström-Grotell (Presenter) (Arcada, Helsinki, Finland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): To develop clinical guidelines is a demanding and expensive process. The Finnish Association of Physiotherapists (FAP) made their first physiotherapy (PT) guidelines (hip and knee arthrosis 2008) in cooperation with the Finnish Medical Society Duodecim (Current Care Guidelines), but with very limited economical resources. Thus, there is a need to create a new cost-effective model for developing such guidelines. The Higher Education Institution(s) (HEI) in Finland is expected to conduct research closely linked to working life. This poster presents a model for developing these in a network coordinated by FAP in cooperation with HEIs, researchers, and clinical experts.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To implement evidence based physiotherapy.
2. To utilize master theses in developing guidelines.
3. To develop a cost-effective model.
METHODS: A FAP handbook is guiding the process. The working group (consisting of expert clinicians, researchers, and PT teachers) is responsible for the literature search strategy, the method used, and the content of the guideline. The PT students are conducting the quality analysis of studies included in the literature review. FAP arranges methodological courses for the involved PT teachers and students. A working group evaluates the level of evidence, makes the recommendations, and writes the guidelines.
RESULTS: The subject of the next guidelines and two pilot universities of applied sciences are selected. A systematic evaluation of the process is made by the working group and a steering group.
DISCUSSION (CONCLUSION): New and cost-effective models are needed to develop PT guidelines.
TARGET AUDIENCE(S):
1. Guideline developer
2. Allied health professionals

P36– Is a literature search in the Cochrane Library enough when preparing health technology assessment reports or clinical guidelines with focus on treatment outcome?

Leena M. Lodenius (Presenter) (Finnish Medical Society Duodecim, Current Care, Helsinki, Finland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Usually, comprehensive literature searches from many different databases are made for preparing guidelines or health technology assessment reports. However, the Cochrane Library consists of six databases and all of them include reliable high-quality information (primary and secondary information sources). The focus of clinical information in the Cochrane Library is on treatment. That is why one could presume that searching in the Cochrane Library is sufficient when preparing health technology assessment reports and guidelines concerning the effectiveness of treatment. By a bibliometric analysis, we will assess the sufficiency of the Cochrane Library.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Bring up the crucial meaning of comprehensive literature searches for the quality of health technology assessment reports and guidelines.
2. Understand the importance of learning how to filter high-quality studies of different study designs from the mass of information in databases.

METHODS: The sufficiency of Cochrane will be tested by studying the literature used in technology assessment reports (recently published by Finnish Office for Health Technology Assessment) by examining the reference lists. We intend to find out how many references used in the reports can be found in the Cochrane Library. We also want to find out how many references are found in MEDLINE but not in Cochrane. It's likely that the results are somewhat similar in guidelines that are limited to the effectiveness of treatment.
RESULTS: The study is ongoing and there are no results yet.
DISCUSSION (CONCLUSION): By means of this study we will bring up the need of comprehensive literature searches for the quality of technology assessment reports and guidelines.
TARGET AUDIENCE(S):
1. Information specialists, librarians
2. Clinical researcher
3. Evidence synthesizer, developer of systematic reviews or meta-analyses
4. Guideline developer
5. Quality improvement manager/facilitator
6. Allied health professionals

P37– NICE Short Clinical Guideline development: An overview of the role of the Information Specialist at the National Institute for Health and Clinical Excellence (NICE)

Lynda Ayiku (Presenter) (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): This poster describes the role of the information specialist in the development of NICE short clinical guidelines. The poster aims to provide an example of how information professionals can play a key role in the development of evidence-based guidance.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To provide a description of the role of information specialists in the development of NICE short clinical guidelines.
2. To use the activities of NICE information specialists as an example of how information professionals can participate in evidence-based guidance development.

METHODS: The Information Specialist role in NICE short clinical guideline development is derived from the following sources: *NICE (2009) The Guidelines Manual (Chapter 5: Identifying the evidence - http://www.nice.org.uk/aboutnice/howwework/developingniceclinicalguidelines/clinicalguidelinedevelopmentmethods/GuidelinesManual2009.jsp); *Centre for Reviews and Dissemination, University of York (2009) Systematic Reviews: Guidance for undertaking reviews in health care (Chapter 1.3.1 - Identifying research evidence for systematic reviews - http://www.york.ac.uk/inst/crd/pdf/Systematic_Reviews.pdf).
RESULTS: The NICE information specialist role:
● Topic selection: information specialists assist with the identification of appropriate short clinical guideline topics according to the Department of Health's criteria;
● Literature searching: information specialists identify the evidence base to answer the review questions of short clinical guidelines. This includes: conducting scoping searches to identify gaps in the evidence, conducting systematic literature searches, creating and maintaining reference management databases, and documenting the search process;
● Communicating with experts: information specialists attend scoping workshops and guideline development group meetings in order to gain expert advice from the meeting attendees (e.g., clinicians and other health care-related professionals, as well as patient and caretaker representatives) to help inform the literature searches.
DISCUSSION (CONCLUSION): NICE short clinical guidelines are developed by a multidisciplinary technical team including technical analysts, health economists, and information specialists. They cover a specific aspect of the pathway of care for diseases and conditions and are based on the best available evidence. The guidelines aim to help health care professionals make clinical decisions for the care of their patients.
TARGET AUDIENCE(S):
1. Information professionals
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Developer of guideline-based products

P38– Patient-centered guidance: identifying evidence on patient preferences for NICE short clinical guidelines

Louise Foster (Presenter) (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): This poster will provide an overview of searching for studies on the preferences of patients. The aim is to describe NICE methods for identifying patient preference studies, and to outline the associated challenges and possible enablers to these issues.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To provide an overview of the NICE searching process for patient preferences for clinical guidelines.
2. To outline the challenges in searching for patient preferences and to highlight some extended searching techniques that may aid optimal retrieval of studies.
METHODS: The poster will describe the NICE searching process for patient preference studies in short clinical guidelines and reflect on our searching experience over several completed guidelines.
RESULTS: Searching for patient preference studies requires a different approach to searching for clinical effectiveness or economic evaluations. A search filter of patient preference studies is used, but there are advantages and disadvantages of including terms relating to study design (e.g., qualitative research) and pre-identified patient "issues" (e.g., fear).
DISCUSSION (CONCLUSION): There are a number of challenges associated with identifying patient preference studies. Discussion will focus on:
- Inconsistent indexing
- Choice of sources
- Volume of studies retrieved
- Extended searching techniques – e.g., citation searching
- Enablers and the value of an iterative approach.
TARGET AUDIENCE(S):
1. Information Specialists/Scientists
2. Clinical researcher
3. Evidence synthesizer, developer of systematic reviews or meta-analyses
4. Guideline developer
5. Consumers and patients representatives

P39– Short guideline development processes: Producing an evidence based guideline in 12-14 months

Victoria J. Kelly (Presenter) (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guideline development methods
BACKGROUND (INTRODUCTION): Guideline developers need to follow a rigid evidence-based, timelines-driven process for producing clinical guidelines. At the National Institute for health and Clinical Excellence (NICE), we have two programs of work. The first is the standard program that produces condition-specific guidance that spans the treatment of a patient from presentation to tertiary care and takes around 24 months to develop. This program has been running successfully for over 10 years. The second, known as the short clinical guideline program, was developed to run parallel to the standard program to produce guidance quickly on topics deemed urgent by the Department of Health.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To present the processes used at NICE within the short clinical guideline program.
2. Developing robust evidence-based guidelines in less than 14 months.
METHODS: The method used to develop the short program used the exact same process as the full program, such as systematic searches, systematic reviews, and a guideline development group, but focuses on fewer, usually four, key clinical questions.
RESULTS: The short clinical guideline program has been successfully running for three years and has produced around six pieces of guidance, which have all been to the same quality as a full guideline but produced in less than 18 months.
DISCUSSION (CONCLUSION): Guidelines can be produced in significantly shorter timescales to allow for topics that don't necessarily fit a full guideline. These processes follow the same robust evidence-based methods of a full guideline but are streamlined for reduced development times.
TARGET AUDIENCE(S):
1. Guideline developer

P40– Consensus Recommendations on post-traumatic brain injury rehabilitation in Catalonia (Spain): Overview and methodology

Anna Kotzeva, MD (Presenter) (Catalan Agency for Health Technology Assessment, Barcelona, Spain); Cari Almazán, MD (Catalan Agency for Health Technology Assessment, Barcelona, Spain); Montserrat Rodó (Catalan Health Department, Barcelona, Spain, Barcelona, Spain); Carmen Caja (Social and Health Master Plan, Cat Health Department, Barcelona, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines for allied health professionals
BACKGROUND (INTRODUCTION): Traumatic brain injury (TBI) may result in combination of physical, cognitive, and psychosocial impairments. Each patient with such sequelae needs a multidisciplinary and personalized approach of rehabilitation interventions. Scientific evidence is controversial and still insufficient to lead evidence-based decisions in rehabilitation of post-TBI patients.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To review and synthesize the available scientific evidence.
2. To establish consensus recommendations on post-TBI rehabilitation in children, adolescents, and adults.

METHODS: An expert panel was formed by inviting relevant stakeholders and assuring multidisciplinary and geographical representation. Literature search for clinical practice guidelines, systematic reviews, and other synthesis documents was conducted in MEDLINE, National Electronic Library of Health, National Guidelines Clearinghouse, and GuiaSalud until April 2009. Identified and selected evidence was supplemented by articles proposed by panel members and was used as a starting point. Each chapter of the guideline was assigned to a group of experts who developed the initial draft and presented it to the rest of the panel. Each recommendation was linked to an evidence statement, if possible. When there was a lack of sufficient evidence and the panel considered an intervention to be important, the recommendation was based on experts' clinical experience. Agreement on each recommendation was analyzed quantitatively and qualitatively, and results were synthesized and presented during consensus conference.

RESULTS: The development process comprised: three panel sessions, including brief training on recommendation elaboration, work meetings for drafting each chapter, and a final consensus conference. There was wide pre-conference agreement (higher than 80%) on the initial draft of the recommendations. During the consensus conference, disagreements and conflicting recommendations were resolved by discussion, and the panel released the final document.

DISCUSSION (CONCLUSION): This methodology provides a structured approach to assessing the literature and developing recommendations that incorporate clinicians' experience in clinical areas where there is insufficient evidence on effectiveness.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Developer of guideline-based products
3. Allied health professionals
4. Nurses

P41– Engaging with Spanish speaking patients - Learning from the challenges and achievements of the "Pacientes Online" initiative.

Mario G. Tristan, MD (San Jose, Sjo, Costa Rica);
Claudia Cattivera, BSc (Presenter) (Pacientes Online, Buenos Aires, Argentina)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines in developing countries
BACKGROUND (INTRODUCTION): "Pacientes Online" is an initiative created by patients for patients. Participation of Spanish-speaking patients–consumers is really low. Several countries have organized training activities on Evidence-based health care for consumers. As the initiative has been very successful, it serves as the Spanish-language branch of the Cochrane Consumer network.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Understand how the patients' initiative can be useful for the clinical guidelines patient validation in areas where patient participation in health is low.
2. Identify patient perspective about the health professional-patient relationship.
3. Identify the Latin America cultural and educational barriers for patient participation on health decisions.
4. Identify the patient perspective for validating clinical guidelines.

METHODS: "Pacientes Online" (www.pacientesonline.org) is a website run by patients for patients. It shows more than 30,000 visits per week. The method, launched by Claudia Cattivera, founder and director, was to get together patients and doctors to talk about that relationship that brings them near or distant.

RESULTS: So far, five patients have been identified, where two are already contributing with a Cochrane Group. Patients come from a variety of settings, from patient organizations to individual contacts. Two patients are interested in musculoskeletal and back topics and one in colorectal cancer. A new program has been launched to promote patient participation in guideline development and to provide training tools.

DISCUSSION (CONCLUSION): The success of this patient initiative is challenging for health professionals. It is an excellent opportunity to have patients involved in many aspects of health care and research, including the Cochrane consumers network activities and clinical guidelines development. It has been empowering to them as individuals and is a new perspective in consumer health education.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Consumers and patients representatives

P42– Experience of developing a CPG of "Diagnosis and management of contrast media during intravascular radiologic procedures" for a teaching hospital at Bogotá, Colombia, South America.

Ana M. Torres, BScPharm (Presenter) (National University of Colombia, Bogotá, Colombia);
Oscar Forero (National University of Colombia, Bogotá, Colombia); Luz Moreno, MD (National University of Colombia, Bogotá, Colombia);
Rodrigo Pardo, MD (National University of Colombia, Bogotá, Colombia)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Guidelines in developing countries
BACKGROUND (INTRODUCTION): The proposed poster shows the development of a Clinical Practice Guideline (CPG) about the diagnosis and management of contrast media during intravascular radiologic procedures. This guideline was elaborated as part of a group of CPGs directed to the teaching

hospital Santa Rosa of the National University of Colombia at Bogotá, Colombia.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Show the development of a Clinical Practice Guideline (CPG) about the diagnosis and management of contrast media during intravascular radiologic procedures.
2. Assessment of a guideline developer's handbook created by a methodologist team, based on systematic reviews of the literature.
3. Identify structural issues in radiology CPG development.

METHODS: The process started on February 2008 and ended on September 2009. The guideline working group developed an evidence-based handbook that was used as a guide during the whole process. It started selecting two experts in intravascular radiologic procedures, then a CPG methodologist and a fellow medical student were invited to join the guideline team. After a systematic prioritization process, the team chose the topic, taking into account the burden of the adverse events in Colombian context, the evidence, clinical practice variability, and relevance for the teaching hospital. The guideline team followed all the systematic steps that are obligatory during CPG process, among them selection of questions, systematic research and critical appraisal of literature, generation of recommendations, consideration of cost-effectiveness of contrast media, the equity of the recommendations according to our health system, and the report of a CPG based on evidence.

RESULTS: At the end of the process, the CPG was presented at the XXXIV Radiology National Conference in Medellín, Colombia, where it was granted the first prize, "Gonzalo Esguerra Gomez," as the best work of the year.

DISCUSSION (CONCLUSION): The experience of developing a CPG in radiology shows several challenges due to the amount and nature of the evidence, gaps in knowledge, the different aspects that needed to be addressed, and the discovery that well-known practices didn't have the evidence to support them.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Quality improvement manager/facilitator
6. Medical educator
7. Health care policy analyst/policy-maker
8. Medical providers and executives
9. Allied health professionals
10. Consumers and patients representatives

P43– Rare cancers and clinical decision-making

Gemma Gatta, PhD (IRCCS "Istituto Nazionale dei Tumori," Milan, Italy);
Jan Maarten Van Der Zwan, MSc (Comprehensive Cancer Centre North East, Groningen, Netherlands);
Sabine Siesling, PhD (Comprehensive Cancer Centre North East, Groningen, Netherlands);
Annalisa Trama, PhD (IRCCS "Istituto Nazionale dei Tumori," Milan, Italy); Renée Otter, PhD (Comprehensive Cancer Centre North East, Groningen, Netherlands); Sonja Kersten, MSc (Presenter) (Association of Comprehensive Cancer Centres, Utrecht, Netherlands);
Riccardo Capocaccia, PhD (L'Istituto Superiore di Sanità (ISS), Rome, Italy)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Other guidelines development
BACKGROUND (INTRODUCTION): Due to the low frequency of patients with rare cancers, caregivers encounter specific problems in decisions on diagnosis, treatment, health care organization, and clinical research. To overcome these problems, the Surveillance of Rare Cancers in Europe (RARECARE) project aims to provide an operational definition of "rare tumors," resulting in a list of tumors meeting that definition. Based on the list, the burden of rare cancers is described with the indicators: incidence, survival, and prevalence.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify rare cancers in Europe according to clinical decision-making, health care organization, and clinical research.
2. Increasing awareness of and creating more insight into the total burden of rare cancers could give an impulse in the development of specific guidelines.

METHODS: A working group including epidemiologists, pathologists, and oncologists developed a definition of rare cancers based on clinical relevance and frequency of tumors. Data from 65 European population-based cancer registries were analyzed. A list of tumors reporting number of cases and crude incidence rates during the period 1995-2002 was built. This list was hierarchically structured in two main layers based on various combinations of ICD-O morphology and topography: layer 1) families of tumors (relevant for the health care organization), layer 2) tumors clinically meaningful (relevant for clinical care and research).

RESULTS: The international consensus group agreed to define rare cancers on the basis of a cut-off based on incidence ($< 6/100,000$/year). Accordingly, 261 tumor entities within the two main layers were selected. Data, including the basic indicators, on incidence, survival (absolute and relative), and five-year prevalence is now available at www.rarecare.eu. The overall result was that about 20% of all cancer cases in the EU are considered as rare cancers.

DISCUSSION (CONCLUSION): Increasing awareness of and creating more insight into the total burden of rare cancers could give an impulse in the development of specific guidelines for diagnosis and treatment, development of expert groups (on European level), and agreements on care centralization.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Medical educator
4. Health care policy analyst/policy-maker

P44– Patient and career participation in the elaboration of the clinical guidelines (CG) of psychosocial interventions in the treatment of severe mental illness

Maria Jose Vicente-Edo (Presenter) (Health Sciences Institute of Aragon, Zaragoza, Zaragoza, Spain); José Miguel Carrasco-Gimeno (Health Sciences Institute of Aragon, Zaragoza, Spain); Jose Ignacio Martín Sanchez (Health Sciences Institute of Aragon, Zaragoza, Spain); Clinical Guideline Development Group (Zaragoza, Spain); Jose Mª Mengual Gil (Health Sciences Institute of Aragon, Zaragoza, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Patient/family/stakeholder roles in guideline development
BACKGROUND (INTRODUCTION): Health care professionals and patients are not used to working together to elaborate CGs. It is important that CGs are evidence based, and patients and families can contribute with perceptions about the quality of care and its outcomes in order to enhance CG validity and facilitate the future implementation.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods of patient and families' participation in the elaboration of CGs.
2. Understand the importance of involving patient and health professionals in the elaboration of CGs.
METHODS: FIRST PHASE: Two groups formed by nine patients (six women and four men) and others formed by 10 caretakers (six women and four men), were invited to participate in two working groups, where they were asked to give their thoughts (problems and needs) about:
- Institutions and treatment for persons with mental illness
- Issues related to social impact (isolation, stigma . . .)
SECOND PHASE: The CDG elaborated a document that addressed patient and caretaker information within the CG and was sent to the patients' associations, who were asked to give feedback.
RESULTS: A CG with 20 clinical questions (CQs) was published in 2009. Nine of the CQs were influenced by the family and patients' working groups (psychoeducation, family and social interventions). The remaining CQs (other psychological treatment and dual diagnosis, homelessness and learning disabilities) were suggested by the CDG. From patients and families feedback, the information provided in the CG is related to legal, social, clinical, and treatment issues.
DISCUSSION (CONCLUSION): Health care has become increasingly patient-centered, and clinical guidelines should be considered one of the instruments that contribute toward enhancing the quality of health care. This experience provides a good example of how patient and professionals can work together, which will help not only in the elaboration of the CG itself but also in the future implementation of the CG.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Consumers and patients representatives

P45– Guidance review: Issues, methods, and the role of the Information Specialist

Sarah Glover (Presenter) (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Updating guidelines
BACKGROUND (INTRODUCTION): The aim of this poster is to explore the types of support that the Information Services team at the National Institute for Health and Clinical Excellence could offer to help identify whether any significant new evidence has emerged since existing guidance was published.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To understand how the searching process can support the decision-making of the development team and their intention to review existing guidance.
2. Explore and assess the suitability of various methods for the purpose of reviewing guidance.
METHODS: The processes involved in guidance reviews are derived from the National Institute for Health and Clinical Excellence (2009) "The Guidelines Manual"; Johnston ME et al. Keeping cancer guidelines current: results of a comprehensive prospective literature monitoring strategy for twenty clinical practice guidelines, International Journal of Technology Assessment in Health Care 2003;19(4):646-55; Shekelle P et al. When should clinical guidelines be updated? BMJ 2001; 323:155-7; Gartlehner G et al. Assessing the need to update prevention guidelines: a comparison of two methods. International Journal for Quality in Health Care 2004;16(5):399-406.
RESULTS: All guidelines developed by NICE are published with the expectation that they will be reviewed and updated as necessary. The guidance manuals state that guidelines will be assessed for review three years from their original publication date. Currently, a number of methods are used to determine whether a guideline should be updated and how to update it once that decision has been made. Methods include citation searching, developing new search strategies, or rerunning original search strategies.
DISCUSSION (CONCLUSION): Several programs at NICE have either recently reached the three-year milestone or are about to, and the Information Services team needs to consider how to respond to this challenge.
TARGET AUDIENCE(S):
1. Guideline developer

P46– Improving the updating process of current care guidelines

Mari Honkanen (Presenter) (The Finnish Medical Society Duodecim, Helsinki, Finland); Raija Sipilä

(The Finnish Medical Society Duodecim, Helsinki, Finland); Jorma Komulainen (The Finnish Medical Society Duodecim, Helsinki, Finland); Eeva Ketola (The Finnish Medical Society Duodecim, Helsinki, Finland)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Updating guidelines
BACKGROUND (INTRODUCTION): Guideline working groups (WGs) are enthusiastic about their work in the first round, but updating remains a challenge on the voluntary-based guideline groups. Evidence needs to be up to date to ensure usefulness of the guideline. The aim is to analyze the WGs' feedback about guideline updating process, to specify the key elements of successful updates, and also to describe the updating process of Current Care guidelines and how it has been improved.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Specify key elements of a successful guideline update.
2. Identify methods that can improve the guideline updating process.
METHODS: Structured feedback has been collected by a web-based questionnaire from every WG after updating since 2005. Annually, about 40% of 150 respondents give feedback, which then is categorized and analyzed for finding the targets for development.
RESULTS: The current care guidelines are updated on a three-year basis, according to a structured updating process. The process begins with a literature search by an information specialist, followed by comments of the managing editor, and appraisal of the literature and updating the guideline by the working group. Feedback of the updating process has been mainly positive. The WG members find the work inspiring and educational. The main challenge is the workload in updating all the guideline material. Updating a guideline is time-consuming, and as the WG members work on a voluntary basis, their work is not financially compensated. Therefore, the role of the editorial board has increased, especially the role of managing editor, in the beginning of the updating process.
DISCUSSION (CONCLUSION): Receiving feedback is important to improve the process. Some changes have been made to the updating process after the feedback from the WGs. One significant lesson learned is the need to reduce the workload of the voluntary WG members.
TARGET AUDIENCE(S):
1. Guideline developer

P47– Update of Clinical Practice Guideline (CPG) on eating disorder treatments

Maria-Dolors Estrada Sabadell, MD (Presenter) (Catalan Agency for HTA and Research, Barcelona, Spain); Anna Kotzeva, MD (CAHTA, Barcelona, Spain); Vicente Turón, MD (Catalan Department of Health, Barcelona, Spain); Dolors Benítez (CAHTA, Barcelona, Spain); Graciela Rodríguez (CAHTA, Barcelona, Spain)

PRIMARY TRACK: Guideline development
SECONDARY TRACK: Updating guidelines
BACKGROUND (INTRODUCTION): To update evidence-based recommendations on eating disorders treatments to help both professionals and patients to make informed decisions on the most appropriate health care for this specific condition. The groups of clinical interest are nervous anorexia, nervous bulimia, and binge-eating disorders.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the process of updating clinical practice guidelines.
2. Review the formulation of recommendations in the context of an updated guideline.
METHODS: The update guidelines group was a multidisciplinary team of all relevant specialists and included experienced methodologists. Fourteen key clinical questions following PICO format were updated. Bibliographic search of GPC, systematic reviews, and original studies was performed in: MEDLINE, Cochrane Library, DARE, CMA Infobase, National Electronic Library of Health, US National Guidelines Clearinghouse, New Zealand Guidelines Group, and UK National Library for Health Guidance, from October 2007 to December 2009. The critical appraisal of the retrieved literature was done using specific instruments (AGREE and SIGN checklists) and the data extraction and synthesis, in evidence tables according to type of document. Recommendations were formulated using SIGN considered judgment methodology. The updated CPG is presented in an electronic format.
RESULTS: OF THE 59 RECOMMENDATIONS: 3 (4%) were graded A, 12 (19%) graded B, 37 (63%) graded D, and 7 (12%) were good practice points. These CPG recommendations were synthesized in two action algorithms on: 1) treatment management of nervous anorexia; 2) treatment management of nervous bulimia and binged-eating disorder.
DISCUSSION (CONCLUSION): This update allows an available "living guideline." This approach improves the decision-making process of the Spanish National Health System professionals as the most recent evidence is integrated.
TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Health care policy analyst/policy-maker
4. Medical providers and executives

P48– The German Medical eLibrary: A web-based knowledge portal for medical professionals

Monika Nothacker, MD (Berlin, Germany); Thomas Bunk (Presenter) (Berlin, Germany); Silja Schwencke (Berlin, Germany); Dana Ruetters (Berlin, Germany); Günter Ollenschläger, PhD (Berlin, Germany)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Guideline libraries

BACKGROUND (INTRODUCTION): The research of high-quality evidence-based medical information is complex and time-consuming for medical professionals. The new "German Medical eLibrary" provides easy access to high-quality medical information and is designed following the example of the former British National Library of Health.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe the concept and content of a new Guideline eLibrary.
2. Understand how medical information can be presented and assessed.

METHODS: The needs of the users were identified via web survey. The results had a strong influence on the development of the library, e.g., guideline visualization. German guidelines were catalogued, indexed, and assessed with the German Guideline Assessment Instrument (DELBI). Additionally, the web was researched for medical information in the guideline context, like evidence reports and practical aids. Further relevant medical and health system information was collected.

RESULTS: The German Medical eLibrary as a knowledge base for doctors has been online since May 2009. It provides 201 clinical guidelines. In addition, about 2200 links to abstracts of Cochrane reviews of the past three years are provided; ca. 1000 reviews are linked directly to a guideline. Practical aids are available for 50% of the guidelines. Six additional main topics for medical and health care information were created, like pharmaceutical information and medical education. These topics are offered as thematic link collections with more than 4500 links to external medical sources. All the content is searchable with a strong topic search as well as a full text search.

DISCUSSION (CONCLUSION): The German Medical eLibrary makes online work with guidelines and medical information easy accessible and is therefore a tool for guideline dissemination, implementation, and knowledge management, supporting high-quality health care. The next steps will be the integration of quality proofed patient information and further types of evidence reports as well as a MeSH-based synonym search.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Medical providers and executives
7. Allied health professionals

P49– Best practice guideline integration within an undergraduate research course curriculum

Elaine E. Santa Mina, PhD (Presenter) (Ryerson University, Mississauga, Ontario, Canada)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination

BACKGROUND (INTRODUCTION): Integration of best practice guidelines (BPG) within an undergraduate research course curriculum can demonstrate the relevance of research to clinical practice. A dissemination strategy for the BPG "Assessment and Care of Adults at Risk for Suicidal Ideation and Behavior" was to include it within a baccalaureate research course. The objective of this poster is to describe the dissemination of this best practice guideline within a baccalaureate research course curriculum for post-diploma degree nurses, via different pedagogical approaches. The student learning objectives were: to exemplify research application to guide clinical practice, to educate nurses about the development of BPGs, and to teach nurses about best practices for assessment of suicide risk.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify different pedagogical approaches to disseminate a BPG within a research course for clinicians.
2. Assess the influence of BPG dissemination within a research course on clinicians and their practices.

METHODS: In her role as course leader for an undergraduate nursing research course, this author created and delivered four pedagogical strategies: in-class lecture format, online discussion with interactive exercises, Ontario Telemedicine Network, and hybrid versions, in order to disseminate this BPG to over 300 nursing students per three academic semesters for two years. With this BPG as the foundation, faculties taught research skills for systematic literature searches, critical appraisals, types of evidences, development of guideline recommendations, and discussion of strengths and limitations of BPGs.

RESULTS: Dissemination of a BPG via various pedagogical approaches for an undergraduate research course for mature students has the potential to bridge nurses' understanding of the impact of research on practice and to initiate clinical discussion of BPG application in practice for both faculty and students.

DISCUSSION (CONCLUSION): Future research opportunities for the effectiveness of BPG dissemination and its influence on implementation for practice via undergraduate research course curricula are presented.

TARGET AUDIENCE(S):
1. Medical educator
2. Allied health professionals
3. Nurses

P50– BTS Guideline for Emergency Oxygen Use in Adult Patients

Sally A. Welham, MA (Presenter) (British Thoracic Society, London, England, United Kingdom);
B. Ronan O'Driscoll, MD (Salford Royal University Hospital, Salford, England, United Kingdom);
Luke S. G. Howard, MD (Hammersmith Hospital, London, England, United Kingdom);
Anthony G. Davison, MD (Southend University Hospital, Southend, England, United Kingdom);
Sheila Edwards, MA (British Thoracic Society, London, England, United Kingdom)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): Oxygen is one of the most widely used drugs, and is used across the whole range of health care specialties. The British Thoracic Society (BTS) Guideline for Emergency Oxygen Use in Adult Patients (Thorax, 2008;63[Suppl VI]) is the first national (UK) guideline on this topic, aimed at simplifying oxygen delivery and better protecting acutely ill patients.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify methods to facilitate guideline dissemination and implementation.
2. Explore how range of tools and materials can aid guideline dissemination and encourage change in practice.
METHODS: The Guideline was prepared by a multidisciplinary working group and published with the endorsement of 22 professional institutions across a range of disciplines.
RESULTS: The Guideline's key recommendations include:
- Oxygen therapy should be adjusted to achieve target saturations rather than giving a fixed dose to all patients with the same disease.
- Oxygen will require a prescription in all situations except for the immediate management of critical illness.

To ensure widespread take-up of the guidelines, BTS took the innovative step of identifying "oxygen champions" in every UK hospital. This national network facilitates training and dissemination of educational materials and new documentation for the prescription and monitoring of emergency oxygen use.

The Society provides the following materials to assist in the dissemination of this important guideline:
- Regular e-mail alerts to the oxygen champion network
- Production of "oxygen alert cards" for vulnerable patients
- Creation of a website to provide background information and educational materials
- An online audit tool
- Development of an e-learning package (end 2010)

DISCUSSION (CONCLUSION): The production of this important multidisciplinary guideline, together with the development of a range of tools to encourage the dissemination and uptake of the key recommendations, provides a useful model for the development of guidelines in other areas.
TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Allied health professionals
5. Nurses

P51– Dissemination of guidelines: Pilot study in Hungary
Erika Kis, MD (Presenter) (TUDOR Network and Medical University of Szeged, Szeged, Hungary); Barnabas Margitai (Institute for Healthcare Quality Improvement, Budapest, Hungary); Eva Dobos (TUDOR Network and Medical University of Szeged, Szeged, Hungary); Andrea Rita Horvath (TUDOR Network and Medical University of Szeged, Szeged, Hungary)

PRIMARY TRACK: Guideline dissemination
SECONDARY TRACK: Other guideline dissemination
BACKGROUND (INTRODUCTION): Since 2002, 394 clinical practice guidelines (CPGs) have been officially released by the Ministry of Health in Hungary. Effective dissemination of these guidelines is a crucial step in their implementation to clinical practice. From January 2010, ministerial order has been put in place in Hungary for auditing health service delivery in relation to standards of existing national guidelines. Therefore, we investigated the effectiveness of guideline dissemination across different target groups of various clinical fields.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify different methods that can improve guideline dissemination.
2. Understand how electronic dissemination would improve guideline access.
METHODS: A survey was performed among 200 physicians from 11 different specialties using a structured questionnaire.
RESULTS: Forty-three percent reported that national CPGs are difficult to access, and 57.5% that they can get the guidelines from four to six different sources. Traditional routes of guideline dissemination are common: conferences - 76.5%; Guideline Handbook (the Hungarian version of "Guidelines") - 72%; local protocols – 67.5%; promotion by pharmaceutical industry - 43%. Electronic dissemination is also widely used: Internet - 68%; homepage of the Ministry of Health - 48.5%; e-mail - 36%; and the new guideline homepage of the Institute for Healthcare Quality Improvement - 24%. Other communication channels to current guidelines are less commonly used: scientific journals – 10.5%; medical societies - 6%; contact with colleagues - 4.5%; CME - 4%; local hospital protocols - 1%, and via auditing performance - 0.5%.
DISCUSSION (CONCLUSION): Physicians become aware of and access guidelines via various routes. The use of information technology is widespread; however, printed versions of CPGs are still popular. Our findings suggest that improved methods for electronic dissemination of brief and easily downloadable summaries of key recommendations of CPGs would improve guideline access and utilization in Hungary.
TARGET AUDIENCE(S):
1. Guideline implementer
2. Quality improvement manager/facilitator

P52– Attitude of primary care physicians towards clinical practice guidelines
Itziar Pérez Irazusta, PhD (Presenter) (Donostia-San Sebastian, Spain); Esther Torres (Donostia-San Sebastian, Spain); Idoia Alcorta (Rentería-Gipuzkoa, Spain); Rafael Rotaeche (Donostia-San Sebastian Spain, Spain); Arritxu Etxeberria (Hernani-Gipuzkoa, South Korea); Eva Reviriego (Osteba. Health Technology Assessment, Vitoria, Spain);

Maria Rosario Sanz Echave (Donostia-San Sebastian, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): In recent years, several clinical practice guidelines (CPG) have been developed and disseminated in the Basque Country (Spain).
LEARNING OBJECTIVES (TRAINING GOALS):
1. To know the attitude of physicians toward guidelines implementation in daily practice.
2. To analyze facilitators and barriers for the implementation of guidelines in primary care.
METHODS: Type of study: cross-sectional study.
STUDY POPULATION: Participants were 431 Primary Care doctors from different regions of the Basque Country. Source: A validated web questionnaire was sent four times (November-January 2009). Variables: The questionnaire consisted of 45 items that were collected from the different concepts of the Theory of Planned Behavior: Intention to use, Belief in results, Perceived Control, Subjective norms, Attitude, Evaluation of results, Generalization of intention, and Sociodemographic variables.
RESULTS: There were 431 questionnaires analyzed, with a response rate of 59.1%; the mean age was 46.95 years (SD 7.74), with a mean of 15.96 years of service (SD 8.35); 59.2% were women and 40.85% were men. It was assumed that physicians believe that it is desirable to: do something positive for the patient, diagnose better, improve people's health, and monitor the patient. Clinicians feel that it is good practice to use the guidelines, it is necessary and satisfying. They perceived them as useful tools and easy to use. They did not feel pressured to use the CPG, nor did they believe that they are important to them because they should be used to evaluate their job. Instruments are applicable to many patients, but up to 37% considered the clinical practice more important than the use of the CPG. However, up to 10% believe that the guidelines are not a useful tool for clinical practice.
DISCUSSION (CONCLUSION): The guidelines are perceived by the physicians as tools that help them do their jobs without perceiving them as disadvantages. Another aspect that should be studied in greater depth is the differences between evidence-based recommendations and clinical practice.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policy-maker

P53– Attitudes to clinical practice guidelines in the National Institute of Cancer in Colombia
Ricardo Sanchez, MD (Presenter) (Instituto Nacional de Cancerología, Bogotá, DC, Colombia);
Felipe Zamora, MD (Instituto Nacional de Cancerología, Bogotá, Colombia);
Giancarlo Buitrago, MD (Instituto Nacional de Cancerología, Bogotá, Colombia);
Monica Ballesteros, MD (Instituto Nacional de Cancerología, Bogotá, Colombia);
Liceth Villamizar, MSc (Instituto Nacional de Cancerología, Bogotá, Colombia);
Daniel Anzola, MD (Instituto Nacional de Cancerología, Bogotá, Colombia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): Positive attitudes toward guidelines are associated with their successful implementation. Attitudinal barriers have not been evaluated previously in Colombia.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess a method to improve guidelines implementation.
2. Identify barriers to guidelines implementation.
METHODS: In order to evaluate the attitudes of health care personnel in the National Institute of Cancer in Colombia, a survey was designed and applied to all members of the health personnel in the Institute.
RESULTS: 84.7% answered the survey; 80.1% have information about at least one previous clinical practiced guideline (CPG); 77.35% use or apply CPGs. The respondents' attitudes were generally positive about guidelines and considered this technology an important tool in clinical practice. The respondents were not confident in guidelines issued or organized by the drug industry. Profession and time of experience were related to attitudes about CPGs: as experience increases, confidence in CPG decreases. Physicians perceive more than nurses that CPGs are necessary tools, and nurses to a larger extent than therapists. Factors related to acceptability of CPG use were: They provide more confidence when making clinical decisions; have credibility when issued by experts; are useful and practical; offer legal, administrative, and ethical advantages; are educational tools; consider local resources; and facilitate participation of multiple disciplines. Factors considered as barriers to implementation were: reduced applicability, lack of flexibility in clinical scenarios, limitations in CPG availability, lack of cultural background for CPG utilization, self-perception of personal experience as more important than CPG when making decisions, and lack of multiple health disciplines in the groups of CPG construction.
DISCUSSION (CONCLUSION): Although health care personnel report acceptability of CPG, some factors considered as barriers to its implementation have been found. Using surveys to explore these kinds of barriers could be a useful tool to design strategies for improving CPG implementation.
TARGET AUDIENCE(S):
1. Guideline developer.
2. Guideline implementer.

P54– Barriers and facilitators for guideline use in emergency practice settings: A case study

Janet A. Curran, PhD (Presenter) (Ottawa Hospital Research Institute, Ottawa, Ontario, Canada)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Barriers to implementation

BACKGROUND (INTRODUCTION): Emergency practice settings pose unique challenges for understanding the use of best practice knowledge. Decisions are often made in a chaotic environment that is prone to multiple interruptions and distractions and where patient flow is a high priority. Knowledge tools such as clinical practice guidelines (CPGs) are present in these settings; however, variation in the use of guidelines continues to exist both within and between emergency departments (EDs).

LEARNING OBJECTIVES (TRAINING GOALS):

1. Examine the use of case studies as a method to explore barriers and facilitators to guideline use.
2. Identify key factors influencing guideline use in emergency practice settings.

METHODS: A case study method was used to explore characteristics of the individual clinician, the practice context, and the knowledge tool as factors relevant for the use of CPGs in rural and urban EDs. Case scenarios involving the use of CPGs were developed in consultation with the medical directors from four rural and urban EDs. Cases were further expanded through telephone interviews with a convenience sample of 12 physicians. Telephone interviews were guided by a structured interview tool containing 32 closed-ended items and three open-ended questions. Data were analyzed graphically and descriptively from a within-case and cross-case perspective.

RESULTS: Case studies varied in acuity and volume of patients affected. Items related to professional networks (speaking with health professionals from other EDs and other physicians' approval of practice), organizational structures (opportunity to provide input and continuing education activities), and relevance with patient outcomes (monitoring patient outcomes and improving patient outcomes) were related to the emergency physicians' decision to use a clinical practice guideline.

DISCUSSION (CONCLUSION): A number of barriers and facilitators were identified at the patient, health care provider, and context of practice levels. Understanding the factors that influence the use of knowledge tools in emergency practice settings will assist in the development of successful interventions for changing provider behavior and improving health outcomes.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Allied health professionals
5. Nurses

P55– Does format of clinical guidelines influence acceptability/uptake by health care professionals?

Elizabeth J. Shaw, MS (NICE, Manchester, England, United Kingdom); Judith Thornton, PhD (Presenter) (NICE, Manchester, England, United Kingdom); Kathryn Chamberlain (NICE, Manchester, England, United Kingdom); Lynda Ayiku (NICE, Manchester, England, United Kingdom)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Barriers to implementation

BACKGROUND (INTRODUCTION): There are many factors that have been identified as affecting the implementation or uptake of clinical practice guidelines. However, the influences of different formats of guidelines on uptake by health care professionals have not been examined specifically. Anecdotal reports suggest that professionals find some guidelines overly long and difficult to navigate.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To understand whether the format of guidelines influences the acceptability/uptake of clinical guidelines in practice by health care professionals.
2. To explore which characteristics of guidelines are reported by health care professionals as affecting implementation.

METHODS: Our first review, a systematic review of randomized controlled trials evaluating the effectiveness of changing the format or content of guidelines on health care professional behavior was undertaken. Usual systematic review methods were applied. In addition, a second exploratory, qualitative review of the characteristics of guidelines being reported as facilitating or proving barriers to implementation was also undertaken. Thematic analysis was used to synthesize the data from published articles (no study restriction was applied).

RESULTS: This review is currently in development, but to date, no randomized controlled trials comparing different guideline formats or guidelines have been identified. Preliminary findings from the qualitative review suggest that the size, layout, and readability of the guideline are perceived as being barriers to implementation. However, very few details are reported, and there are very few examples of solutions to the perceived barriers being provided.

DISCUSSION (CONCLUSION): Guideline developers should adhere to evidence-based guideline formats and content; however, there is very little evidence to determine the most appropriate format. Further work is needed to determine what characteristics of an evidence-based guideline are most important to users and whether this influences the uptake of recommendations.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator

P56– Information gap between urban and rural municipalities regarding cancer screening guidelines

Chisato Hamashima, MD (Presenter) (National Cancer Center of Japan, Tokyo, Japan); Ryoko Tsuruno, MMSc (Keio University, Tokyo, Japan); Hiroshi Saito, MD (National Cancer Center of Japan, Tokyo, Japan)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): From 2003 to 2008, four cancer screening guidelines were published in Japan. Although the guidelines were available on the Internet, printed versions were also sent to all local municipalities.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To compare awareness and understanding of the cancer screening guidelines between urban and rural municipalities.
2. To promote equitable dissemination and appropriate understanding of the guidelines.

METHODS: Surveys were conducted in 2008 by mailing a questionnaire to local government officials responsible for cancer screening programs. The questionnaire addressed the level of awareness and understanding of the cancer screening guidelines.
RESULTS: The response rate was 69.5% in the 890 urban municipalities and 58.5 % in the 1015 rural municipalities. Awareness of the guidelines was slightly higher in urban municipalities compared to rural municipalities (89% vs. 84%, $P < 0.01$). Although Internet access was freely available to both, 46% of urban municipalities accessed the web site for the guidelines, compared to only 27% of the rural municipalities. The incorrect response rate that non-recommended methods could be used for population-based screening was similar between rural and urban municipalities. More specifically, in 47 prefectures, implementation rates of PSA screening in municipalities showed a correlation with the incorrect response rate of municipalities that non-recommended methods could be used for population-based screening (Spearman correlation = 0.4846, $P < 0.01$). Fifty-six percent of urban municipalities responded that non-recommended methods could be used for opportunistic screening, compared to 50% of rural municipalities.
DISCUSSION (CONCLUSION): Although there was a distinct information gap between urban and rural municipalities regarding access to the guidelines, the level of understanding of the guidelines was similar. This research demonstrates a need for better understanding of the cancer screening guidelines at the municipality level by bridging the information gap.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Health care policy analyst/policy-maker

P57– The guideline cycle in Youth Health Services (YHS): Policy, research and practice interconnected

Marga Beckers, MA (Presenter) (National Institute on Public Health & Environment, Bilthoven, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Barriers to implementation
BACKGROUND (INTRODUCTION): In implementing the obligatory element of the Youth Health Service Package, professionals increasingly rely on scientifically based guidelines. The RIVM/Centre for Youth Health has established the National Guidelines Advisory Committee in order to coordinate and direct the cycle of development and implementation of these guidelines.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify different methods to improve guideline implementation.
2. Assign roles to various partners involved in implementation.
3. Stimulate research to monitor quality of performance in all steps of the guideline cycle.

METHODS: The guideline cycle interconnects policy, research, and practice. Together, parties involved complete all steps in the cycle, solve problems, assign roles, and take on responsibilities. The Guideline Cycle – Research for: 1) Scientific evidence; 2) Prioritization; 3) Uptake and implementation in practice; 4) Update. Development: 1) Based on consultation of organizations in youth health practice, research, and policy; 2) Advice to ZonMw Committee on Youth Health Service Guidelines. Approval: 1) Adoption by organizations of professionals; 2) Broad consent national umbrella organizations; 3) Approval by Guideline Advisory Committee. Implementation and safeguarding: 1) Publish and disseminate; 2) Stimulate the use of guidelines; 3) Support safeguarding.
RESULTS: Policy, research, and practice are mutually reinforcing. This accelerates the implementation of evidence-based YHC guidelines in practice. Policy: 1) Policy memorandum: "directives" Guidelines Advisory Committee RIVM/Centre for Youth Health; 2) Programmed approach of guideline cycle; 3) Facilitating research, development, implementation, and maintenance of the guideline cycle. Research: 1) Scientific evidence base of topics for guidelines; 2) Prioritization; 3) Implementation of guidelines in practice; 4) Update of guidelines. Practice: 1) Indicating the need for guideline development; 2) Participating in the development of guidelines; 3) Implementing guidelines; 4) Identifying hurdles in the process of implementation.
DISCUSSION (CONCLUSION): How to realize a structure in which the steps of the guideline cycle seamlessly interconnect for new knowledge to be applied in practice as quickly as possible?
TARGET AUDIENCE(S):
1. Guideline implementer
2. Quality improvement manager/facilitator
3. Health care policy analyst/policy-maker
4. Allied health professionals

P58– Active implementation is required even with fully automatic decision support service

Tiina Kortteisto, MSc (Presenter) (University of Tampere, Tampere, Finland); Minna Kaila, MD (University of Tampere, Tampere, Finland); Jorma Komulainen, MD (National Institute for Health and Welfare, Helsinki, Finland); Marjukka Mäkelä, MD (National Institute for Health and Welfare, Helsinki, Finland)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Computer-based decision support

BACKGROUND (INTRODUCTION): The Evidence-Based Medicine electronic Decision Support service (EBMeDS) integrated within the Electronic Health Record (EHR) was introduced into clinical practice in one primary care health center in June 2009. Patient-specific automatic reminders and diagnosis-based guideline links are shown on computer screen to physicians, nurses, and physiotherapists (45 in total), when they use the EHR. The aim was to find out what the professionals think helps or hinders the implementation and use of automatic reminders after six months use.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify health care professionals' opinions of use of an automatic decision support service.
2. Find out potential barriers and facilitators for the implementation of automatic reminders.

METHODS: We convened three focus groups of 12 professionals: six physicians, five nurses, and one physiotherapist. A broad discussion theme was used, and the group discussion was audio-taped and transcribed. The data were analyzed using a content analysis.

RESULTS: The majority of the participants reported only limited usage of the EBMeDS service. The guideline links were used most, regardless of the professional background. Physicians discussed practical problems at the time of introduction of the system, though not related to the system. In particular, slowness of the EHR was considered a major problem. A significant issue was the clear delay (3 months) from learning about the system to starting to use it. More education and a local opinion leader were desired to help uptake in the future.

DISCUSSION (CONCLUSION): The study indicates that active and maybe even repeated implementation efforts should be used on uptake of even an automatic decision support service.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Quality improvement manager/facilitator
4. Medical providers and executives
5. Allied health professionals
6. Nurses

P59– Clinical guidelines from PDF-format to modern computer-based decision support

Anne Hilde Røsv Røsvik, MDS (Presenter) (The Norwegian Electronic Library of Health, Oslo, Norway); Thomas Gauperaa (The National Knowledge Centre for Health, Oslo, Norway); Runar Eggen (The Norwegian Electronic Library of Health, Oslo, Norway); Reidun Kværnbraaten (The National Knowledge Centre for Health, Oslo, Norway)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Computer-based decision support

BACKGROUND (INTRODUCTION): The Norwegian national clinical guidelines have so far been published in PDF-format suitable for printing, but not user friendly as an electronic decision support system. Our objective was to convert the Norwegian national guidelines into a modern decision support system, freely available, using national guidelines for treatment and rehabilitation of stroke as a pilot.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Developing a method for converting national guidelines into a modern web-based decision system.
2. How to develop a structured template of guidelines.
3. Identify how structured XML and tagging can make it possible to present the content in line with user needs.

METHODS: We have identified information and content in guidelines to be able to develop a template for web-based clinical guidelines. To assure correct results in the free text search and by navigating, each section of the guideline will be tagged with an index of subject headings. Data will be included in a structured XML and can be transferred to all other internet sites that can receive XML, like Word, Google, and decision support system for clinicians or internet sites.

RESULTS: We have developed a generic template for guidelines that can be used for all the Norwegian guidelines, which automatically gives an overview of what a guideline should contain. A web site where the user interface is structured in sections: background, diagnostics, treatment, and rehabilitation, but will be also be tagged with information related to the clinical pathway. The treatment tasks will also be tagged with information about which type of health workers are responsible for each task, so that it can be presented according to responsibility. The web-based national guidelines will be finished by the end of March 2010.

DISCUSSION (CONCLUSION): Health care professionals need fast and easy access to reliable information when making diagnosis and treatment decisions for patients with stroke. This is what the project provides, in Norwegian language, adapted to the local context and treatment traditions in Norway.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

P60– Decision support capabilities of commercial EHRS and implications for guideline developers

Adam Wright, PhD (Presenter) (Brigham and Women's Hospital, Boston, Massachusetts); Justine E. Pang (Brigham and Women's Hospital, Boston, Massachusetts); Sapna Sharma (OHSU, Portland, Oregon); Dean F. Sittig, PhD (UT Houston, Houston, Texas); Blackford Middleton, MD (Partners HealthCare, Wellesley, Massachusetts)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): Guidelines are often implemented as clinical decision support (CDS) in commercial electronic health record systems. However, the CDS capabilities of commercial EHR systems differ widely, and these differences have important implications for guideline developers.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify clinical decision support features of electronic health record systems.
2. Understand differences in the CDS features of various commercial EHR systems.
3. Understand the implications of these differences for guideline development.

METHODS: We compared the capabilities of nine commercially available clinical information systems against the 42 functional taxa from a published taxonomy of CDS capabilities. The taxonomy has four axes: 1) Triggers: events that cause a decision support rule to be invoked (e.g., ordering a laboratory test); 2) Input data: data used by a rule to make inferences (e.g., the patient's problem list); 3) Interventions: possible actions a decision support module can take (e.g., showing a guideline); 4) Offered choices: many decision support events require users of a clinical system to make a choice, e.g., choosing a safer drug.
RESULTS: Overall, there was a great deal of variability among capabilities of the systems possessed. The two weakest systems evaluated were missing 18 of 42 capabilities, while the strongest system was missing only a single capability. Four of nine unique triggers (order entered, outpatient encounter opened, user request, and time) were available in all systems, seven of 14 input data elements were universally available, two of seven interventions (notify and show data entry template) were available in all systems, and only three of 12 offered choices were available in all nine systems.
DISCUSSION (CONCLUSION): The clinical decision support (CDS) capabilities of these CCHIT-certified EHRs were variable, and none of the systems had every capability. Guideline authors and implementers should design guidelines with knowledge of the varying capabilities of EHRs and, preferably, guidelines should degrade gracefully in the absence of certain CDS capabilities or EHR data.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Health care policy analyst/policy-maker

P61– Delphi consensus on the feasibility of translating the American College of Emergency Physicians clinical policies into computerized clinical decision support

Edward R. Melnick, MD (Presenter) (North Shore University Hospital, Long Island City, New York); Jeffrey A. Nielson, MD (Akron City Hospital, Akron, Ohio); John T. Finnell, MD (Indiana University School of Medicine, Indianapolis, Indiana); Saumil J. Patel, BS (North Shore University Hospital, Manhasset, New York); Lynne D. Richardson, MD (Mount Sinai School of Medicine, New York, New York)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): The American College of Emergency Physicians (ACEP) Clinical Policies have been shown to be safe and effective. However, these evidence-based practice guidelines face barriers to effective implementation. Translation of the ACEP Clinical Policies into computerized Clinical Decision Support (CDS) could help address these barriers and improve clinician decision-making at the point of care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess the feasibility of translating the ACEP Clinical Policies into CDS.
2. Improve future ACEP guideline development with the goal of implementation into CDS.

METHODS: The investigators convened an informatics expert panel of 14 emergency physicians chosen for their expertise in CDS. The recommendation sections from the six most recent ACEP Clinical Policies were distributed to the panel for review. Four rounds of the Delphi consensus process were performed using SurveyMonkey, a web-based survey tool. With the goal of working toward consensus, anonymous responses from the prior round of the Delphi process were provided for the panelists' consideration.
RESULTS: The panel members had a 100% completion rate for all four rounds of the Delphi process. All 14 members of the panel signed the resulting consensus document. The panel identified four limitations to translation, including: guidelines that are too vague, are not comprehensive enough, require additional physician input or knowledge for translation, and when translated would impede clinical workflow due to excessive data entry. The panel made the following recommendations for future guideline development and implementation with the goal of implementation into CDS: provide actionable recommendations, include informatics specialist input throughout guideline development, and CDS should be deployed using a modular approach to allow for future flexibility and customization.

DISCUSSION (CONCLUSION): These consensus results will serve to identify limitations to implementation of the existing ACEP Clinical Policies so that future guideline development will consider implementation into CDS at all stages by providing actionable recommendations with minimal interruption at the point of care.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products

P62– Shifting paradigms: Advancing practice guideline development and implementation for an eHealth approach

Julie Makarski, BSc (Presenter) (McMaster University, Hamilton, Ontario, Canada); Ellen Rawskie, BSc (McMaster University, Hamilton, Ontario, Canada); Raman Deol, BSc (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): Practice guidelines are evidence-based knowledge tools that can facilitate knowledge translation. Benefits of practice guidelines are numerous, however, their successful implementation, which can be fraught with complexities, may preclude the realization of those benefits. The prominence of practice guidelines will only continue to increase as the parallel increases in improved quality of care, cost-effectiveness, and patient safety continue to dominate health care agendas.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Review computerized clinical decision support systems and the role of practice guidelines.
2. Understand how practice guidelines can be effectively implemented using computerized clinical decision support systems.
3. Review of a proposed model for the development of eCPGs to facilitate application of guidelines into local computerized clinical decision support systems.

METHODS: A computerized clinical decision support system is a tool that can facilitate the implementation and adoption of and adherence to practice guidelines in a clinical setting. If implemented and designed correctly, computerized clinical decision support systems can facilitate the integration of practice guidelines into health care workers' workflow and can transform text-heavy, complex practice guidelines into "useable" and "actionable" forms of research evidence. In addition, providing a high-quality knowledge base to support the system is essential.

RESULTS: We propose a framework and model for the development and implementation of practice guidelines with computerized implementation as the end goal. The central tenet of the framework is the centralized and collaborative online development community of practice guidelines, from topic inception to practice guideline completion. The AGREE II would serve as the basis of the developmental protocol to ensure that rigorous methods are used and to ensure quality of the end product. The GLIF and GEM models are also included as part of the developmental protocol so as to ensure the electronic applicability of the final product.

DISCUSSION (CONCLUSION): Standards and interoperability issues could be addressed and the repository of practice guidelines would facilitate a "plug and play" approach for computerized clinical decision support systems, facilitating the local implementation of practice guidelines.

TARGET AUDIENCE(S):
1. Electronic health professionals
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Health care policy analyst/policy-maker
8. Allied health professionals
9. Consumers and patients representatives
10. Nurses

P63– The development of a common guideline framework for physicians and payors

Matthew Stanhope, PT (Presenter) (La Trobe University, South Melbourne, Victoria, Australia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Computer-based decision support
BACKGROUND (INTRODUCTION): Rising medical costs has led to increasing interest in the use of treatment guidelines as a means of decreasing inappropriate treatment and, therefore, medical expenditure. Typically, medical expenditure is affected to some degree by case manager and claims adjustor decision-making. Within the insurance market, case manager/claims adjustor decision-making must use treatment guidelines to ensure consistency with medical evidence to achieve the objective of decreasing inappropriate treatment and, therefore, medical expenditure. However, treatment guidelines are normally designed for treatment providers. It becomes critical that the differing skill sets, in addition to the differing roles, of case managers and claims adjustors be considered when deciding on appropriate development and dissemination strategies of treatment guidelines for non-medically trained professionals. One strategy of treatment guideline development is an evidence-based decision support system.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess the benefits of developing distinct interfaces for professionals of varying backgrounds.
2. Determine the value of a structured relational database for guideline content management.

METHODS: An existing treatment guideline was migrated to a relational database. Various interfaces were developed for professionals from varying backgrounds, including physicians, case managers, and claims adjustors.

RESULTS: A database was constructed that facilitated the development of multiple interfaces for varying professionals. Content management is streamlined from a centralized location, also ensuring consistency of guidelines between medical practitioners and case managers and claims adjustors.

DISCUSSION (CONCLUSION): This study demonstrates that delivery of treatment guideline recommendations in a decision support system is an effective dissemination strategy that can be tailored to the needs of users not necessarily trained in the interpretation and use of medical evidence. Combining this with an interface for physicians provides a mechanism that can improve the alignment between physician clinical decision-making and that of insurance professionals.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Health care policy analyst/policy-maker
5. Health insurance payers and purchasers

P64– Clinical practice guidelines in cancer in Catalonia: assessing adherence to recommendations on rectal cancer

Paula Manchon-Walsh, MDS (Presenter) (Catalan Cancer Strategy, Barcelona, Spain);
Josep M. Borras, DrPH (Catalan Cancer Strategy, L'Hospitalet De Llobregat, Spain);
Josep A. Espinàs, MDS (Catalan Cancer Strategy, L'Hospitalet De Llobregat, Spain); Luisa Aliste, MPH (Catalan Cancer Strategy, L'Hospitalet De Llobregat, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline adherence and non-adherence
BACKGROUND (INTRODUCTION): The OncoGuies, evidence- and consensus-based guidelines in cancer in Catalonia, are the key element used by the Catalan Cancer Strategy in order to promote equity of access to therapy and quality of cancer care. The colorectal cancer (CRC) OncoGuia was first published in 2003 and updated in 2008. An audit on the process of care and clinical results of cases with rectal cancer was launched in 2009.
PURPOSE: To assess adherence to the guideline recommendations for diagnostic assessment, pathology, and treatment of rectal cancer patients and to evaluate its clinical results.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess adherence to recommendations.
2. Assess clinical results.
3. Enable a future assessment on improvement of clinical results related to a better adherence to recommendations.

METHODS: A retrospective multicenter study of all cases of primary rectal cancer having undergone a curative resection in the public health system during 2005 or 2007 in Catalonia was conducted. Data of interest were gathered from the clinical records by an external auditing team.

RESULTS: There were 1831 cases of rectal cancer included. Standards of diagnosis as the performance of endorectal ultrasound and/or pelvis MRI (63.5%) were partially followed. Performance of total mesorectal excisions was poorly reported by surgeons (46.1%) and by pathologists (37.4%). Preoperative radiotherapy was carried out in 67.5% of patients with stages II and III. The 2-year local recurrence rate was 4%.

DISCUSSION (CONCLUSION): Although adherence to the CRC OncoGuia is not optimal and in some aspects difficult to assess due to the poor recording of variables of interest, clinical outcomes are acceptable compared to international references. The complete process of updating a guideline, auditing, and giving feedback to clinicians should improve adherence to recommendations. A new audit will be launched in 2011 to confirm the improvement in the quality of care for patients with rectal cancer.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Health care policy analyst/policy-maker
5. Medical providers and executives
6. Consumers and patients representatives

P65– Improving the quality of care of COPD patients in an internal medicine residency group by implementing the American Thoracic Society Guidelines

Ali M. Eskandar, MD (Presenter) (Mclaren Regional Medical Center, Flint, Michigan);
Jami Foreback, MD (Mclaren Regional Medical Center, Flint, Michigan); Hilana Hatoum, MD (Mclaren Regional Medical Center, Flint, Michigan);
Gautham Gadiraju, MD (Mclaren Regional Medical Center, Flint, Michigan);
Ragnhild Bundesmann, PhD (Mclaren Regional Medical Center, Flint, Michigan); Vidya Kollu, MD (Mclaren Regional Medical Center, Flint, Michigan);
Harrish Nuthakki, MD (Mclaren Regional Medical Center, Flint, Michigan); Ashvin Tadakamalla, MD (Mclaren Regional Medical Center, Flint, Michigan);
Ramesh Yarlagadda, MD (Mclaren Regional Medical Center, Flint, Michigan); Divya Thomas, MD (Mclaren Regional Medical Center, Flint, Michigan)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline adherence and non-adherence
BACKGROUND (INTRODUCTION): Chronic obstructive pulmonary disease (COPD) continues to be an increasing cause of morbidity and mortality worldwide.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess physician adherence to American Thoracic Society (ATS) guidelines for COPD care in our Internal Medicine Residency Clinic.

2. Assess COPD patients' quality of life through a self-assessment questionnaire.

METHODS: Data were collected from 86 charts of COPD patients for demographics, co-morbidities, and compliance with eight recommendations of the ATS guidelines for COPD care.

Quality of life was assessed for 42 patients with COPD using a validated questionnaire.

RESULTS: Of the 86 charts reviewed, clinical assessment of COPD symptoms was documented in only 65.9%, oxygen evaluation in 22.4%, smoking counseling in 40.0%, referral to a pulmonologist in 52.9%, referral to pulmonary rehabilitation in 9.4%, and an appropriate end-of-life discussion in 4.7%. COPD was appropriately staged in only 49.4%, and an assessment of weight loss was done in only 7.1%. The data for patients' quality of life showed that the Physical Component Summary mean was 33.74 (compared to a national norm mean score of 50, standard deviation 10). The Mental Component Summary mean was 44.15. Co-morbidities present in COPD patients were depression 20.9%, diabetes 19.8%, cancer 15.1%, CHF 20.9%, coronary disease 27.9%, and CVA 7%.

DISCUSSION (CONCLUSION): Our results show poor compliance with the ATS guidelines for COPD care and patients consider themselves to be in a poor state of physical health. Our next step is to implement educational and procedural changes and reassess compliance with ATS guidelines as well as changes in patients' quality of life.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Quality improvement manager/facilitator

P66– Practical tools to improve implementation of a Primary Care Stroke Clinical Practice Guideline

Beatriz Nieto (Health Technology Assessment Unit, Madrid, Spain., Madrid, Spain); Javier Gracia (Presenter) (Health Technology Assessment Unit, Madrid, Spain., Madrid, Spain);
Petra Díaz del Campo (Madrid, Spain);
Raquel Luengo (Madrid, Spain);
Juan Antonio Blasco (Health Technology Assessment Unit, Madrid, Spain, Madrid, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline adherence and non-adherence
BACKGROUND (INTRODUCTION): Clinical practice guidelines aim to become a helpful tool for clinicians by mainstreaming the best available evidence into medical practice. Guideline length could be a potential barrier to their implementation; therefore, many guidelines include quick reference versions, algorithms, and other tools directed to increase their use. The purpose is to elaborate an acute stroke management algorithm and other tools to improve guideline adherence by general practitioners.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Improve guideline adherence by general practitioners with practical tools.
2. Define contents for a quick reference guideline in terms of utility.

METHODS: All the recommendations about clinical diagnosis, prehospital acute stroke, and "related stroke" management included in the "Primary Care Stroke Clinical Practice Guideline" were summarized and captured by the working group in an algorithm for general practitioners. The group also identified areas where other useful tools could be offered.

RESULTS: The final algorithm contains the acute stroke clinical diagnosis criteria and guidelines to conduct the patient interview, physical exploration, and differential diagnosis. Prehospital assessment stroke scales (CPSS and MASS) and a medical record sheet were included as helpful tools. The algorithm also includes recommendations about activation of emergency services, attaching the "stroke code" criteria as a practical tool. Referral criteria for "related stroke" (patients who had suffered a TIA or stroke but hadn't consulted a physician in the first 48 hours) were incorporated as well. All recommendations, algorithm, and tools were included in a quick reference guideline.

DISCUSSION (CONCLUSION): A quick reference guideline, which includes algorithm, recommendations, scales, and other practical tools, will facilitate the CPG dissemination and implementation process, as these quick versions are easy to use in daily clinical practice.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical providers and executives

P67– Administrative database record-linkage in the study of acute myocardial infarction (AMI) in a population sample of the city of Torino

Elena Mittone, PharmD (Presenter) (Pharmaceutical Service ASL TO2, Torino, Italy); Silvio Geninatti (ASL TO2, Torino, Italy); Michelangela Pozzetto (Pharmaceutical Service, Torino, Italy);
Emanuela Fiorio (Pharmaceutical Service, Torino, Italy); Lorenza Ferraro (Pharmaceutical Service ASL TO2, Torino, Italy)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The use of an administrative database correlated to pharmaceutical prescriptions paid by the National Sanitary Service (drugs-SSN) is a common practice within the pharmaceutical services. The data offer doctors an overview of territorial pharmaceutical prescriptions. The study, which takes into consideration patients belonging to two of Torino's wards, analyzes only those suffering from acute myocardial infarction (AMI) and determines

the kind of care used during hospitalization, at discharge, and domicile care.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Characterization of population sample suffering from AMI (hospital admission in Piemonte Region) in 2007 and resident in town sub-municipality districts 6 and 7 of Torino (sample-AMI).
2. Characterization of pharmacological treatment of sample-AMI and differences of treatment between pre- and post-AMI period.
3. Survival analysis of sample-AMI ground on clinical-sanitary and social-demographic variables.

METHODS: Drugs appropriateness indicators in AMI therapy (like antiplatelet and beta-blockers) and comorbidity drugs indicators have been detected. Sample-AMI has been stratified by age, gender, comorbidity, and active therapy using record linkage between administrative databases (drug-SSN versus personal data).

RESULTS: During 2007, 372 AMIs (352 patients: 19 with two hospital admissions) were observed in the reference population (194,000 inhabitants). In the pre-AMI period, 48% of patients took more than 10 different drugs, while afterwards the value increased to 80%. The number of beta-blockers-treated patients increased from 94 to 229, and the number of antiplatelet-treated from 131 to 281. In addition, 24.4% of sample-AMI was diabetic. Survival analysis underlines better prognosis for: younger patients (first analysis), lower cardio-vascular-risk patients (second analysis), and better-treated patients (third analysis).

DISCUSSION (CONCLUSION): At the moment, in spite of the limited amount of handled patients, good home therapy compliance has been observed in accordance with EBM, as well as an increasing prescriptive appropriateness culture. In this framework, the pharmacist role is crucial in order to allow appropriateness culture spreading and to support patient care during the hospital discharge.

TARGET AUDIENCE(S):

1. Quality improvement manager/facilitator
2. Allied health professionals

P68– Clinical practice guidelines: Are we making a difference?

Caroline Nehill, MPH (Presenter) (National Breast & Ovarian Cancer Centre, Surry Hills, New South Wales, Australia)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Clinical practice guidelines (CPG) are a key component of the National Breast and Ovarian Cancer Centre's (NBOCC) leadership in information provision on breast and ovarian cancer in Australia. In 2008, NBOCC published recommendations for use of sentinel node biopsy (SNB) in early (operable) breast cancer. The introduction of SNB is a major change to surgical technique for the assessment of the axilla, and represents a significant change

in NBOCC's recommendations for women with breast cancer. While initially focusing on the development and dissemination of CPGs, NBOCC's recent emphasis has included implementation and evaluation of uptake. This project aims to explore a method of assessing the uptake of NBOCC CPGs, their impact on clinical practice, and the effectiveness of dissemination and implementation.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Describe a method of evaluating the impact of CPGs on clinical practice.
2. Describe a method of evaluating the effectiveness of dissemination and implementation of CPGs.

METHODS: Specific practice recommendations were identified to be evaluated, along with appropriate measures, data items, and data sources. Data sources include cancer registry and clinical audit data sets. NBOCC undertook data collection where required. Data were stratified by geographical location for sub-analysis of metropolitan versus regional and rural findings.

RESULTS: Results will be presented about the implementation of SNB nationally as a surgical technique in line with NBOCC recommendations. Sub-analysis will highlight any geographical differences to uptake and will consider patterns relating to differences in data sources.

DISCUSSION (CONCLUSION): This project provides an opportunity to measure the impact of NBOCC guidelines on clinical practice and thereby gain an understanding of the translation of research into everyday practice. Barriers to the implementation of SNB according to CPGs will also be identified and will inform future initiatives to promote best practice in the management of women with early breast cancer. The project also provides baseline data for further evaluation.

TARGET AUDIENCE(S):

1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policy-maker
7. Medical providers and executives
8. Consumers and patients representatives

P69– CMA Infobase: Toward evidence-based decision-making for Canadian physicians

Nan Bai, MS (Presenter) (Canadian Medical Association, Ottawa, Ontario, Canada);
Samuel Shortt, MD (Canadian Medical Association, Ottawa, Ontario, Canada);
Jean-Marc Guillemette, PhD (Canadian Medical Association, Ottawa, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Clinical practice guidelines (CPGs) are "systemically developed statements to

assist practitioner and patient decisions about appropriate health care for specific clinical circumstances." To help physicians access CPGs and adopt evidence-based best practice, the CMA Infobase was created by the Canadian Medical Association in 1994 and has since grown into the most comprehensive online source of Canadian CPGs with 1200 CPGs included.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Assess physicians' information needs for clinical practice support tools.
2. Identify new features that would enhance physicians' use of the Infobase as a tool for evidence-based decision-making.

METHODS: A user survey was conducted online during April 1-30, 2009. The questionnaire included 11 questions about user demographics, purpose and frequency of visits, satisfaction, desirable features, and experience with CPG development and implementation.

RESULTS: A total of 512 users responded. Overall, physicians were highly satisfied (83%). The top two reasons for visits were continuing education (80%) and acquiring information for managing a clinical case (63%). Clinical pearls – short, practical summaries of CPGs (90%), integrated accredited CME (81%), and e-mail alert of new CPGs (81%) were among the highest rated features, followed by peer review of CPGs (66%).

DISCUSSION (CONCLUSION): Physicians' enthusiasm about clinical pearls concurs with research findings that lack of user-friendly format of CPGs might be one of the barriers to CPG adherence. Creating CPG summaries with clear, succinct, and actionable recommendations might help physicians adopt evidence-based decision-making in the patient care delivery process. Enhanced educational material such as online learning modules of CPGs might help physicians assimilate research evidence. Quality rating of CPGs based on critical appraisal interests physicians given the growing number of CPGs of varied quality.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical educator
5. Health care policy analyst/policy-maker

P70– Development of a methodological handbook for the implementation of CPG in the Spanish National Health System

José Miguel Carrasco (Presenter) (GuiaSalud-Health Sciences Institute of Aragon, Zaragoza, Aragon, Spain); Flavia Salcedo-Fernandez (GuiaSalud-Health Sciences Institute of Aragon, Zaragoza, Spain); MHI Implementation Group (GuiaSalud-Health Sciences Institute of Aragon, Zaragoza, Spain); José María Mengual Gil (Health Science Institute of Aragon, Zaragoza, Spain, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): In 2006 the Spanish National Health System (NHS) launched the Program of Clinical Practice Guidelines (CPG), which has meant an increment in both the production of GPCs and their quality. But the development and dissemination of a CPG does not mean that their recommendations will be transferred to practice. This Methodological Handbook for Implementing (MHI) will support the different health services that conform to the Spanish NHS and other entities in implementing the CPG.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Show the development of a Methodological Handbook for Implementing (MHI) CPG in the context of an emergent National Guideline Programme in Spain.
2. Understand the process and complexity of implementing clinical guidelines.

METHODS: An expert group, integrated by 16 experts in the development and implementation of CPG (practitioners, sociologists, psychologists, nurses, and economists), and after a scientific literature review, discussed the structure of the MHI and developed the chapters related to the different aspects of an implementation program. Three other experts reviewed the draft in order to make an external review, advising on inconsistencies and chances for improving the text.

RESULTS: The expert group developing the structure of the MHI took two basic premises: first, that implementation must be understood as a planned process whose main characteristics are dynamic and particularity; secondly, the implementation must be understood as a local adoption process that involves knowing the characteristics of the context where the recommendations of the CPG will be implemented. The MHI addresses the different aspects that constitute an implementation plan in five chapters: pre-requirements for the implementation of a CPG, the importance of context in the implementation of the CPG, identifying barriers and facilitators, implementation strategies, and evaluation of implementation.

DISCUSSION (CONCLUSION): This manual, as well as serving as a guide to implement a CPG program in the NHS, can be a useful tool for any team or institution that seeks to implement decisions based on GPC.

TARGET AUDIENCE(S):
1. Guideline implementer

P71– Experiences of guideline implementation

Heli Kangas, MSc (Presenter) (Finnish Association of Physiotherapists, Helsinki, Finland); Camilla Wikström-Grotell (Arcada, Helsinfors, Finland)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Clinical guidelines are considered important instruments to improve the quality of care. The best way to implement guidelines is to tailor the

methods according to the needs of guideline users. The Finnish Association of Physiotherapists developed the implementation of guidelines together with PT teachers and clinicians.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To understand the content of hip and knee arthrosis guidelines.
2. To create a positive attitude towards the guidelines.
3. To achieve ability to work evidence-based.
4. To implement the guidelines in practice.

METHODS: The guideline implementation tour included 11 theoretical and 5 practical educational sessions during one year. These sessions were organized around Finland and they were free of charge for every physiotherapist (PT). A theoretical session (4 hours) consisted of education in the content of the guidelines and information about how the recommendations were constructed. A practical session (4 hours) consisted of education in how to apply the guideline's key messages in practice. All participants (N = 2391) received an e-mailed feedback survey one week after concluded educational sessions and a follow-up six months later.

RESULTS: The results presented here are gathered from the first feedback survey one week after the concluded educational sessions (response rate 57%). Most participants were female, working either for public health care or for the private sector, and the main reason for participation was a need for continuing education. Only 22% of the participants had read the guidelines beforehand. According to the participants, the guidelines are useful in making PT plans, giving guidance, arguing new interventions for decision-makers or patients, and for PT education on different levels. The need for more knowledge and professional development were the most important factors for using the guideline in practice.

DISCUSSION (CONCLUSION): Theoretical and practical education is needed to achieve a positive attitude toward guidelines and for the ability to implement these in practice.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Allied health professionals

P72– How can we improve guideline implementation? Resource implications of differing approaches

Anna R. Gagliardi, PhD (University Health Network, Toronto, Ontario, Canada); Stephanie Hylmar, BSc (Presenter) (University Health Network, Toronto, Ontario, Canada); Melissa C. Brouwers, PhD (McMaster University, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): Research shows that in Canada and elsewhere guidelines are passively disseminated. Developers have identified the need to improve their capacity for implementation of current guidelines, production

of more implementable guidelines, and helping target users adopt guidelines. It is unclear to which of these differing approaches resources should be directed. The purpose of this study is to interview guideline developers and identify the resource implications and feasibility of preferred alternative approaches.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Review evidence on guideline developer implementation practices and expressed needs.
2. Learn about different approaches to guideline implementation.
3. Identify the resource implications of different approaches to guideline implementation.
4. Consider the feasibility of applying and/or investigating different approaches to guideline implementation.

METHODS: Developers of Canadian and international guidelines will be identified through web sites (Guidelines International Network, National Guideline Clearinghouse). We estimate that three types of developers (government, professional society, other) from five countries will participate, for a minimum target of 15 interviews. Additional participants will be recruited until informational redundancy is achieved. Executives will be contacted to specify the leader with responsibility for guideline development and/or implementation. Data will be collected by audio-recording and transcribing telephone interviews. Participants will be asked about current implementation models and infrastructure, and preferences and resource requirements for alternative approaches. Two individuals will independently apply constant comparative technique to identify and categorize emerging themes, then compare findings to achieve consensus through discussion.

RESULTS: Thematically coded text will be tabulated by theme, country, and type of developer to compare and interpret the feasibility of, and requirements for, different approaches to guideline implementation.

DISCUSSION (CONCLUSION): We will share this knowledge broadly among guideline developers who wish to enhance their implementation capacity. This research will establish a basis upon which to conduct experimental studies that identify the cost-effectiveness of differing guideline implementation approaches.

TARGET AUDIENCE(S):
1. Evidence synthesizer, developer of systematic reviews or meta-analyses
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Health care policy analyst/policy-maker

P73– How useful is the Guideline Development Group's (GDG) BiliWheel as a tool for implementing their guidance on management decisions about neonatal jaundice?

Juliet Kenny, BA (National Collaborating Centre for Women's and Children's Health, London, England, United Kingdom); Hugh McGuire, MSc (Presenter)

(National Collaborating Centre for Women's and Children's Health, London, England, United Kingdom); Debra Teasdale, PhD (Health Wellbeing, Family, Canterbury Christ Church University, Chatham Maritime, England, United Kingdom); Karen Ford (School of Nursing and Midwifery, De Montfort University, Leicester, England, United Kingdom)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The BiliWheel was conceived of by the Neonatal Jaundice Guideline Development Group (GDG) as an aid for clinical staff. The GDG accepted that while visual inspection was useful in recognizing jaundice, it was unreliable in estimating its severity, and the GDG recommended that bilirubin levels be measured and managed according to age-appropriate management thresholds. An added problem is that it is generally accepted that calculating age in hours quickly and accurately is difficult. The GDG saw a need to create a tool that would make calculating the age in hours easier and would also inform on the age-appropriate management strategy recommended in the guidance. An evaluation study was carried out in a sample of third-year midwifery students and practicing midwives from two teaching hospitals.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Evaluate need for guideline-specific implementation tools to assist health care professionals in clinical practice.
2. Identify positive and negative outcomes of using a guideline-based implementation tool in clinical practice.
3. Evaluate health care professional training needs and other resources needed when implementing a guideline-based implementation tool.
4. Identify barriers to the implementation of guideline-specific implementation tools in clinical practice.

METHODS: Study participants were presented with case vignettes of six babies with jaundice and asked to complete a questionnaire covering management decisions, feedback on design and layout issues, and a Likert scale for determining the usefulness of the BiliWheel. Study results will be expressed as percentage correct from the total sample. Common themes regarding design, layout, and utility will be collated.

RESULTS: To be presented and discussed at the conference.

DISCUSSION (CONCLUSION): To be presented and discussed at the conference.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Medical educator
4. Allied health professionals
5. Consumers and patients representatives
6. Nurses

P74– How useful is the NICE Neonatal Jaundice Parent Information Factsheet in comparison to other parent information leaflets in terms of reducing adverse outcomes of neonatal jaundice?
Juliet Kenny, BA (National Collaborating Centre for Women's and Children's Health, London, England, United Kingdom); Hugh McGuire, MSc (Presenter) (National Collaborating Centre for Women's and Children's Health, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The Parent Information Factsheet (PIF) was conceived of by the Neonatal Jaundice Guideline Development Group (GDG) following discussion that identified a specific problem in recognizing jaundice. Evidence reviewed showed that, with minimal training, parents/caretakers were often equally good at recognizing jaundice as health care professionals. The GDG were concerned that, although capable, parents/caretakers may not be empowered to check for jaundice and what to do if jaundice was recognized. The GDG set an important recommendation they had made about measuring bilirubin levels if jaundice was recognized. It was therefore important to address this knowledge gap and empower parents/caretakers to be active participants in caring for their babies. After further discussion of various ways of disseminating information based on their individual experience of different clinical/patient needs, the GDG chose to develop a PIF that was specific to their guidance to facilitate its implementation post-publication. An evaluation study was carried out to assess the PIF's usefulness in comparison to other existing leaflets

LEARNING OBJECTIVES (TRAINING GOALS):
1. Evaluate need for parent information factsheets.
2. Identify positive and negative outcomes of similar parent information factsheets that have already been published.
3. Develop parent information factsheets that make it easier for health care professionals to support clinical guidance.

METHODS: Existing parent information leaflets were identified by an Internet search. Each of the identified leaflets was compared to the GDG PIF and each was analyzed for readability and content. Study results were expressed as percentage congruent with the GDG leaflet. Common themes regarding design, layout, and utility were collated.

RESULTS: To be presented and discussed at the conference.

DISCUSSION (CONCLUSION): To be presented and discussed at the conference.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Developer of guideline-based products
3. Medical educator
4. Allied health professionals
5. Consumers and patients representatives
6. Nurses

P75– Recommendations are not enough: Creating a toolbox to support stroke guideline uptake
Patrice Lindsay, PhD (Presenter) (Canadian Stroke Network, Etobicoke, Ontario, Canada);
Mark Bayley, MD (Toronto Rehabilitation Institute, Toronto, Ontario, Canada); Linda Kelloway, MN (Ontario Stroke Network, Hamilton, Ontario, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The CSS mission is to reduce the burden of stroke in Canada. Two critical components of the CSS strategic plan have been the development and implementation of stroke best practices guidelines. The CSS stroke guidelines have two unique and innovative features: first, validated performance measures that are aligned with each recommendation to provide a standardized approach to quality monitoring; second, for many recommendations, targeted implementation tools have been developed to support interprofessional and health system administrator uptake of the guidelines. This presentation will demonstrate the unique approach and impact on quality care using two best practice areas that are key system drivers of stroke care: emergency medical services and stroke unit care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Discuss the value of interprofessional guideline development teams.
2. Identify interprofessional tools to support guideline uptake and implementation.
METHODS: Interprofessional educational modules aimed at a range of target audiences have been developed through a structured process to enhance uptake of stroke unit care and standardized emergency medical services care of stroke patients out-of-hospital. The process included extensive literature reviews, environmental scans, and consultation with frontline staff and system leaders.
RESULTS: An implementation guide for stroke unit care has been developed and disseminated. This guide includes structural components, staffing ratios, and care delivery model information. The EMS tools consist of a standardized content for all EMS reference guides as well as a workshop that details the information contained in the reference guide.
DISCUSSION (CONCLUSION): Both implementation tools have successfully increased the uptake of best practice recommendations. This approach may be applicable to many evidence-based guidelines across health care disciplines.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical providers and executives
6. Allied health professionals
7. Nurses

P76– The Critical Illness Network: A train-the-trainer model for guideline implementation
Kari J. Kren, MPH (American Dietetic Association, Camas, Washington); Joan Schwaba, MS (Presenter) (American Dietetic Association, Chicago, IL)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The American Dietetic Association (ADA) is the nation's largest organization of food and nutrition professionals (70,000 members). ADA is committed to improving the nation's health and advancing the profession of dietetics through research, education, and advocacy. One of ADA's most valued resources is the Evidence Analysis Library, which houses summarized nutrition research and the ADA Evidence-based Nutrition Practice Guidelines. ADA has adopted its own multi-step, rigorous process for developing guidelines; publishing 13 sets of guidelines for various diseases/conditions since 2005. Recently, ADA created a train-the-trainer process for implementing guidelines. This model for implementation will be described.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify various practice tools to assist with applying guidelines.
2. Recognize the ability of "champion" practitioners for enhancing guideline implementation.
3. Understand methods for implementation of guidelines among practitioners.
METHODS: The Critical Illness (CI) Evidence-based Nutrition Practice Guideline was selected as the pilot guideline for this implementation process. A "Critical Illness Network" was formulated and used a train-the-trainer approach to assist with the implementation of the CI guideline. Participants were selected based on a series of criteria, and a leadership team, the CI Network Development Group, was formulated to plan the training procedures.
RESULTS: Network participants attended a series of webinar trainings, which highlighted the CI guideline, change management, case studies, and practice materials. Participant responsibilities included attending online trainings and support calls, completion of homework tasks, training others on guideline implementation (within or outside their institution), and disseminating information.
DISCUSSION (CONCLUSION): The presenter will highlight the protocol in its entirety, beginning with the selection of CI Network candidates, planning procedures, review of training sessions and materials, and outcomes of the Network.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Medical providers and executives

P77– The revised guideline "Atrial fibrillation" in primary care: Assessing the room for improvement of antithrombotic therapy

Wim Opstelten, PhD (Presenter) (Dutch College of General Practitioners, Utrecht, Netherlands); Stefan Visscher, PhD (Netherlands Institute for Health Services Research, Utrecht, Netherlands); Jan van Lieshout, MD (IQ Health Care Radboud University, Nijmegen, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): The main complication of atrial fibrillation (AF) is the occurrence of arterial thromboembolisms. For prevention of this complication, oral anticoagulants (OA) are more effective than antiplatelet (AP) therapy. The latter, however, has fewer adverse events and is, therefore, advised for low-risk patients. In 2009, the Dutch College of General Practitioners revised the guideline "Atrial fibrillation." This revised guideline assesses the risk of thromboembolism by using the CHADS2-score, which is determined by the presence of Congestive heart failure, Hypertension, Age above 75 years, Diabetes, and previous Stroke. Total scores of 0 or 1 indicate for AP therapy, and scores of 2 or higher for OA prescription. Assessing the discrepancy between the revised guideline and the actual antithrombotic medication in AF patients may improve guideline implementation.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Understand the need for exploring the actual state of patient care when developing a (revised) guideline.
2. Understand the need for assessing the discrepancy between the guideline and the actual state of patient care.
METHODS: Analysis of prevalent AF cases in 49 general practices in 2008. For all individual AF patients, we assessed their CHADS2-score and actual antithrombotic therapy.
RESULTS: There were 992 AF patients identified. The AF prevalence was 2.6% (95% CI 2.4%-2.9%) in patients aged 65-75 years and 5.9% (5.4%-6.4%) among patients aged 75 years. Forty-one percent had a CHADS2-score of 0 or 1, and 59% a score of 2 or higher. The mean score in patients aged 65-75 years was 1.1, versus 2.4 in patients aged 75 years. Of all patients with a CHADS2-score of 0 or 1, 65% were on OA therapy; of all patients with a CHADS2-score of 2 or higher, 29% got AP therapy.
DISCUSSION (CONCLUSION): This analysis shows the contrast between the revised guideline and the actual antithrombotic treatment in AF patients. It may focus the attention of general practitioners on the necessity of reviewing their antithrombotic therapy, thus reducing the risk of arterial thromboembolisms in AF patients.
TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products

P78– Translation Research in a Dental Setting (TRiaDS): A framework for knowledge translation

Gillian MacKenzie, PhD (Presenter) (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Heather Cassie, BSc (University of Dundee, Dundee, Scotland, United Kingdom); Douglas Stirling, PhD (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Linda Young, PhD (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Craig Ramsay, PhD (University of Aberdeen, Aberdeen, Scotland, United Kingdom); Jan Clarkson, PhD (University of Dundee, Dundee, Scotland, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guideline implementation methods
BACKGROUND (INTRODUCTION): A common policy strategy to help promote knowledge translation (KT) is the production of clinical guidance. However, it has been demonstrated that the simple publication of guidance is unlikely to optimize practice. For dentistry in Scotland, the production of national clinical guidance is the responsibility of the Scottish Dental Clinical Effectiveness Programme (SDCEP). To support implementation of SDCEP guidance into clinical practice, TRiaDS (Translation Research in a Dental Setting) is a recently established multidisciplinary research collaboration that aims to develop a program of KT research embedded within the SDCEP guidance development process.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To understand how the TRiaDS approach is embedded within a guidance development process.
2. To understand the component parts of the TRiaDS framework.
METHODS: TRiaDS is developing a standardized framework to enable a timely assessment of the impact of each SDCEP guidance document and an informed approach to the need for and choice of additional KT interventions.
RESULTS: For each SDCEP guidance document, a process of diagnostic analysis begins at the start of guidance development. Information is gathered about current practice. Key recommendations and associated behaviors are identified and prioritized. Stakeholder questionnaires and interviews are used to identify potential barriers and enablers. Where possible, routinely collected data are used to measure compliance with the guidance and to inform decisions about whether a KT intervention is required. Interventions are informed by data gathered during the diagnostic phase and prior published evidence.
DISCUSSION (CONCLUSION): The embedding of TRiaDS within a national program of guidance development offers a unique opportunity to inform and influence the guidance development process, with the potential to inform dental services practitioners, policy-makers, and patients on how best to translate national recommendations into routine clinical activities. In addition, although based in primary dental care and focused on SDCEP guidance, the TRiaDS framework is readily transferable across professional disciplines.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer

P79– Legal aspects of CPGs

Martin Faix, JD (Presenter) (Olomouc, Czech Republic); Radim Licenik, MD (Olomouc, Czech Republic); Maxim Tomoszek, JD (Olomouc, Czech Republic); Katerina Ivanova, PhD (Olomouc, Czech Republic)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Guidelines and the law
BACKGROUND (INTRODUCTION): The progressive tendency in development and implementation of clinical practice guidelines raises several interdisciplinary, inter alia, legal questions. Their importance has been highlighted in the Czech context by first few judgments, in which clinical guidelines played a crucial role, as well as by the current (legislative) debate on standardization of the Czech health care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Identify problematic legal aspects of CPGs (in the Czech legal context).
2. Analyze and assess legal approaches to creation and implementation of CPGs.
METHODS: On the background of legislative debates, the role and validity of clinical guidelines are being assessed. The focus is on interdependency of clinical guidelines and the definition of lege artis care (do clinical guidelines determine the reasonable standard, or are they only a tool helping the doctor to provide lege artis care?), having strong impact on the field of medical malpractice litigation.
RESULTS: Authority and legal status of clinical guidelines are another problematic aspect. The analysis shows that despite the desirable aim of clinical guidelines being one of the instruments of the national legislator to regulate clinical activities, the fact of giving the clinical guidelines legally binding character would raise several questions: e.g., in case of diverging clinical guidelines for the same case, the legislator would have to ascertain one of the guidelines. Current (Czech) case law involving clinical guidelines raises several questions. The analysis revealed the problem of (especially lower) court's lack of knowledge on how to handle the role of clinical guidelines when deciding a case, especially in relation to testimony of medical experts (clinical guidelines as a substitute for expert testimony?).
DISCUSSION (CONCLUSION): To identify and analyze the questions of development and implementation of clinical practice guidelines could help by providing guidance for medical and legal professionals, including the legislator in the course of reform debates.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Medical educator
4. Health care policy analyst/policy-maker

5. Health insurance payers and purchasers
6. Medical providers and executives

P80– Quality of care in the management of cardiovascular risk factors in primary care of the Basque Country before the implementation of three clinical practice guidelines

Arritxu Etxeberria (Presenter) (Osakidetza, Basque Health Service, Hernani, Gipuzkoa, Spain); Rafael Rotaeche (Centro de Salud de Alza Osakidetza, Donostia-San Sebastian, Spain); Idoia Alcorta (Rentería-Gipuzkoa, Spain); Itziar Pérez (Donostia-San Sebastian, Spain); José Ignacio Emparanza (Donostia-San Sebastian, Spain); Eva Reviriego (Osteba, Health Technology Assessment, Vitoria, Spain); Elena Ruiz de Velasco (Bilbao, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Implementing guidelines in developing countries
BACKGROUND (INTRODUCTION): The Basque Health Service has focused on the improvement of care for cardiovascular risk factors through a program of implementation of three clinical practice guidelines (diabetes, hypertension, and dyslipemia) in primary care. A cluster randomized clinical trial is being performed to evaluate its impact.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To describe the management of cardiovascular risk factors before the implementation of the guidelines.
2. To assess differences in baseline characteristics between the intervention and control groups in the clinical trial.
METHODS: Type of study: a cross-sectional study. Study population: Patients with hypertension, type 2 diabetes mellitus, and general population; Basque Country (Gipuzkoa East and Bilbao districts). Data source: central computerized medical record, period 2008. Variables: Process and outcome indicators proposed in the guidelines.
RESULTS: Diabetes (N = 40,604): annual request for HbA1c, 71.38%; annual cardiovascular risk assessment, 7.02%; HbA1c less than 7%, 41.44%; annual foot examination, 39.81%; new diagnoses treated with metformin, 65.17%. Hypertension (N = 89,164): annual request for laboratory testing, 17.18%; adequate control of blood pressure, 29.62%; annual cardiovascular risk assessment, 6.93%. General population (N = 389,471): cardiovascular risk assessment in women aged 45 years and men aged 40 years: 17.27% and 14.36%, respectively. No statistically significant differences were found in baseline characteristics of patients between the intervention and control groups, with the exception of the indicator "annual request for HbA1c" ($P < 0.05$), although the magnitude of the difference was very small (1.6%).
DISCUSSION (CONCLUSION): There is considerable scope for improvement in cardiovascular risk factors care. An impact assessment of different interventions is needed to improve the management of cardiovascular risk factors.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Health care policy analyst/policy-maker

P81– The BREATH Study: The Brazilian Experimental Algorithm for the treatment of bipolar disorders in the public health system

Airton Tetelbom Stein, MD (Presenter) (Ufcspa/Ulbra/GHC, Porto Alegre, RS, Brazil); Flávio Shansis, MSc (Sao Pedro Hospital, Porto Alegre, Brazil); Ana Flávia Lima, PhD (Ufrgs, Porto Alegre, Brazil); Marcelo Fleck, PhD (Ufrgs, Porto Alegre, Brazil); Carisi Polanczik, PhD (Ufrgs, Porto Alegre, Brazil)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Implementing guidelines in developing countries

BACKGROUND (INTRODUCTION): Bipolar disorders (BD) need an effective treatment, and there is interest in learning whether these patients who seek the resources available at the Brazilian National Health System (SUS) have a successful outcome. The objective is to evaluate the use of an algorithm to manage BD in this setting.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Development of an algorithm based on the best evidence to manage BD.
2. Implementation of a guideline using the resources available in the public sector to manage BD.

METHODS: An algorithm has been developed to treat BD using only medications provided by the Brazilian NHS (SUS). A program has been proposed on this issue: A Mood Disorders Program (PROPESTH) at Hospital Psiquiátrico São Pedro (Brazil). The algorithms from PROPESTH (The BREATH Study) were developed through a critical review based on the available literature. These ranged from expert algorithms (such as CANMAT) to recognized studies such as STEP-BD, and adapted to the Brazilian NHS. Each of the guidelines has been defined based on a consensus carried out by a board of PROPESTH team of experts in BD.

RESULTS: The algorithms have included drugs provided by the Brazilian NHS and were based on: 1) Step 1: Monotherapy; 2) Step 2: An association of drugs; 3) Further steps: a change of drugs in different associations; 4) High-cost drugs exclusively for refractory cases. The selected drugs are lithium, typical antiepileptic agents (carbamazepine and valproate), SSRI (sertraline), TCA (nortriptyline), an atypical antipsychotic (risperidone), and lamotrigine exclusively for refractory cases. The step switching is determined by the grade of response evaluated by different scales (YMRS, Bech Rafaelsen, Altmann, HAM-D, MADRS).

DISCUSSION (CONCLUSION): The algorithms from PROPESTH (The BREATH Study) were designed to be an alternative in the treatment of BD in the Brazilian NHS for developing countries such as Brazil, using low-cost medications that are conjectured to prove a good cost-effectiveness relation.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Health care policy analyst/policy-maker
6. Consumers and patients representatives

P82– A new collaborative care delivery and payment model for treating depression in primary care using an evidence-based guideline as the foundation

Cally Vinz (Presenter) (Institute for Clinical Systems Improvement, Bloomington, Minnesota); Joann Foreman (Institute for Clinical Systems Improvement, Bloomington, Minnesota)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into health care systems

BACKGROUND (INTRODUCTION): The Institute for Clinical Systems Improvement (ICSI) uses its guideline foundation to assist its members to implement best clinical practice. In 2008, ICSI launched the DIAMOND (Depression Improvement Across Minnesota, Offering a New Direction), an initiative to create more successful depression management in primary care. The ICSI Major Depression in Adults in Primary Care Guideline served as the implementation framework for diverse stakeholders to change care management for depression patients in primary care.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Implement a team-based approach to treating depression utilizing a new care delivery model.
2. Identify a sustainable payment model to support care management of depressed patients in primary care.

METHODS: ICSI used the Major Depression in Adults in Primary Care Guideline, including the implementation recommendations, tools, and measures as the framework for the DIAMOND collaborative. The collaborative engaged provider groups, health plans, purchasers, and patients to implement the collaborative care approach, based on the University of Washington's IMPACT model, which involves a care manager and consulting psychiatrist in the patient's care, using a standard assessment tool for diagnosing depression and a registry to monitor patient progress and implements care delivery structures to support the delivery of evidence-based care based on the ICSI guidelines for consistent treatment. DIAMOND also contains a new payment model whereby health plans reimburse participating clinics.

RESULTS: Twenty months after its introduction, 3598 patients have enrolled in DIAMOND through 59 clinics. An

analysis of patients enrolled in DIAMOND for at least six months to date showed 44% were in remission and an additional 15%, while not in remission, had decreased the severity of their depression by at least 50%.

DISCUSSION (CONCLUSION): While modifications to this care model are ongoing, the clinical effectiveness of DIAMOND has been confirmed. Developers believe it could become the model for treating depression in primary care nationwide, and support the incorporation of behavioral health into primary care.

TARGET AUDIENCE(S):
1. Guideline implementer
2. Quality improvement manager/facilitator
3. Health insurance payers and purchasers
4. Medical providers and executives
5. Allied health professionals
6. Consumers and patients representatives
7. Nurses

P83– An evaluation of the NICE Quality Standards Programme pilot

Tim Stokes, MBChB (Presenter) (Manchester, England, United Kingdom); Nicola Bent, Phar (NICE, Manchester, England, United Kingdom); Tanya Graham, BSc (Institute of Psychiatry, London, England, United Kingdom); Val Moore, MSc (NICE, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health care systems
BACKGROUND (INTRODUCTION): In 2008, the English Department of Health published a major policy review, the NHS Next Stage Review (High Quality Care for All), which sets out how health care quality should be defined and assessed, and recommended that the role of NICE be expanded to develop quality standards. NICE set up a pilot Quality Standards program in 2009 and four topics will have been completed by Spring 2010 (Dementia, Stroke, Venous Thromboembolism Prevention, and Specialist Neonatal Care). A Quality Standard is a set of specific, concise statements that: 1) act as markers of high-quality, cost-effective patient care across a pathway or clinical area, covering treatment or prevention; 2) are derived from the best available evidence (NICE Guidance and NHS Evidence accredited sources); and 3) are produced collaboratively with the NHS and social care, along with their partners and service users.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Determine the strengths and areas for improvement of the key process stages of NICE's Quality Standards Programme.
2. Make recommendations on how the overall process and efficiency of the process can be improved.
3. Share issues and approaches that may be transferable to different health care systems.

METHODS: A parallel process evaluation of the NICE Quality Standards pilot program was carried out in January 2010 using the four pilot topics. A mixed-methods approach was utilized consisting of semi-structured interviews with purposively sampled key stakeholders analyzed thematically using the framework approach followed by a structured questionnaire sent to a larger sample of stakeholders.
RESULTS: The findings of the evaluation are currently being analyzed and will be presented at the conference.
DISCUSSION (CONCLUSION): The key issues necessary for the successful development of a national quality standards program will be discussed.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Health care policy analyst/policy-maker
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Allied health professionals
9. Consumers and patients representatives
10. Nurses

P84– Implementation of the Guidelines for the Diagnosis and Management of Asthma, 2007 (Guidelines) in Suffolk County (New York)-operated health centers (SCHCs)

Lewis R. Mooney, MD (Presenter) (Suffolk County, New York Department of Health Services, Coram, New York); Shaheda Iftikhar, MD (Suffolk County, New York Department of Health Services, Hauppauge, New York); Karen Kessler, RN (Suffolk County, New York Department of Health, Coram, New York)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health care systems
BACKGROUND (INTRODUCTION): In order to improve asthma care for the 6132 persons with asthma seen yearly at the 10 SCHCs, a broad-based asthma taskforce (AT) of end-users was formed to develop policy and implementation tools based on the Guidelines. Compliance was tracked by a departmental asthma coordinator using one of the implementation tools.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Designing effective implementation tools for guideline implementation.
2. Overcoming barriers to the implementation of complex national guidelines at the local level.
METHODS: The AT developed local policy, procedure, and implementation tools adapted from the Guidelines. These implementation tools consisted of: six age-specific Provider Education Summary Sheets-Classifying Asthma Severity/Classifying Asthma Level of Control; three age-appropriate Asthma

Medication Worksheets; an Asthma Action Plan (AAP) in English and Spanish and an Asthma Management Plan (AMP), which is a single-page patient encounter form that generated a carbonless second page and enables the health care professional to implement departmental asthma policy on a single page. After deployment, asthma education sessions were held. Monthly compliance with the policy was ensured by the full-time asthma coordinator using the carbonless yellow copy of the AMPs to track compliance. Compliance was reported both monthly at a departmental meeting and on the department's intranet web site.

RESULTS: In January 2009, the first month of deployment, 231/458 (50%) persons with asthma had AMPs on their medical record. This increased to 428/476 (90%) by December 2009. For the initial project year, 5229/6132 (85%) persons with asthma had AMPs on their medical records.

DISCUSSION (CONCLUSION): Successful implementation of new and complex national clinical guidelines in a large and diverse health care delivery system is facilitated by broad input into policy design, design of appropriate implementation tools, selecting methods of policy deployment, education, and the ongoing data collection and dissemination. These components are required to bring meaningful change to large and complex health care delivery systems.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health insurance payers and purchasers
7. Medical providers and executives
8. Nurses

P85– The Australian Healthy Kids Check: Does it conform to evidence-based guidelines?

Danielle Mazza, MBBS (Presenter) (Monash University, Notting Hill, Melbourne, Victoria, Australia); Karyn Alexander, MBBS (Monash University, Notting Hill, Melbourne, Victoria, Australia)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into health care systems

BACKGROUND (INTRODUCTION): To assess whether the components of the Healthy Kids Check (HKC), a preschool screening check recently added to the Australian Government's Enhanced Primary Care Program, are supported by evidence-based guidelines or reviews.

LEARNING OBJECTIVES (TRAINING GOALS):
1. To describe a case study in pediatric preventive guideline implementation.
2. To identify the complexity of synthesizing multiple guidelines into clinical practice.

METHODS: Guideline and MEDLINE databases were searched for guidelines and systematic reviews published between 2000 and 2008 that were relevant to screening, prevention, or well-child care in primary health care, and including children of preschool age. Search subjects reflected the HKC components: growth, weight, obesity, vision, hearing, oral health, enuresis, encopresis, allergic disease, and food allergies. Four relevant guidelines or reviews were retrieved. For each component of the HKC, guidelines addressing the presumed rationale for screening, or the test or tool required to implement it, were reviewed. Relevant evidence-based and consensus-based guideline recommendations were assessed as either supporting or opposing components of the HKC, or stating that the evidence was insufficient to recommend screening of preschool children.

RESULTS: Guidelines were often inconsistent in their recommendations. Most of the components of the HKC (e.g., screening for chronic otitis media and questioning about toilet habits) are not supported by evidence-based guidelines relevant to the primary care setting, though a number of consensus-based guidelines are supportive.

DISCUSSION (CONCLUSION): There is currently a dearth of evidence relevant to child health surveillance in primary care. The components of the HKC could be refined to better reflect evidence-based guidelines that target health monitoring of preschool children.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Developer of guideline-based products
4. Medical educator
5. Consumers and patients representatives

P86– The role and benefits of partnership with your asthma coalition to disseminate and implement asthma disease management guidelines into a closed health care system

Mary E. Cataletto, MD (Presenter) (Winthrop University Hospital, Mineola, New York); Anne Little, MPH (Asthma Coalition of Long Island, Hauppauge, New York)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Incorporating guidelines into health care systems

BACKGROUND (INTRODUCTION): Previous studies have shown variable levels of acceptance as new evidenced-based guidelines are proposed by medical specialty societies. This presentation will focus on techniques used to improve dissemination and implementation of the Expert Panel-3 Guidelines for the Diagnosis and Management of Asthma based on the chronic care model, which stresses the value added for partnerships with community resources.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Discuss the benefits of partnership with your asthma coalition in disseminating EPR-3.
2. Identify important steps in order to initiate change in physician behavior.
3. Develop program outcomes measures to identify your successes.
4. Reinforce the value of the chronic health care model as a system for change.

METHODS: This project was funded by the New York State Department of Health. A closed health care system engaged the Asthma Coalition as a community partner. The coalition was responsible for providing best practice asthma education according to the EPR-3 Guidelines for the Diagnosis and Management of Asthma. Didactic and case discussion sessions were held. Program outcomes are the results of the efforts of this partnership.

RESULTS: Improvements were identified in the following areas: documentation of diagnosis of asthma in both children and adults, classification of asthma severity and control, appropriate use of asthma controller medication, and the use of asthma action plans. It is still too early to evaluate outcomes in terms of the effect of this project on patient acute care visits and hospitalizations.

DISCUSSION (CONCLUSION): This project represents a unique partnership of community and government resources and demonstrates that organizations with different missions and objectives can work collaboratively to provide added value to their community. Following the chronic care model as a systems change opportunity, this project will show how the asthma coalition was able to interface with a closed health care system as their community partner to update and prepare proactive health care teams.

TARGET AUDIENCE(S):

1. Guideline implementer
2. Quality improvement manager/facilitator
3. Medical educator
4. Medical providers and executives

P87– GIN Kindergarten: A comprehensive educational program for undergraduate medical students

Radim Licenik, MD (Presenter) (Faculty of Medicine, Palacky University, Olomouc, Czech Republic); Katerina Ivanova, PhD (Faculty of Medicine, Palacky University, Olomouc, Czech Republic); Martin Ledik Faix, JD (Faculty of Law, Palacky University, Olomouc, Czech Republic); Pavel Kurfürst, MSc (Faculty of Medicine, Palacky University, Olomouc, Czech Republic); Maxim Tomoszek, JD (Faculty of Law, Palacky University, Olomouc, Czech Republic); Jan HoP Precek (Faculty of Medicine, Palacky University, Olomouc, Czech Republic); Denisa Osinova (Palacky University Faculty of Medicine, Olomouc, Czech Republic); Eva Dorazilova (Palacky University Faculty of Medicine, Olomouc, Czech Republic); Darja Jarosova, PhD (Ostrava University, Faculty of Health Studies, Ostrava-Zabreh, Czech Republic); Thomas Kuhn, MD (Ostrava Teaching Hospital, Ostrava, Czech Republic); Adelka Michalcova, MD (Olomouc University Hospital, Olomouc, Czech Republic); Jarmila Potomkova, MSc (Palacky University Faculty of Medicine, Olomouc, Czech Republic); Katerina Cervena, MSc (League of Human Rights, Brno, Czech Republic)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into medical/non-medical professional education

BACKGROUND (INTRODUCTION): The Centre for Clinical Practice Guidelines of the Faculty of Medicine, Palacky University is concerned with issues of clinical practice guidelines (CPGs) as viewed from different perspectives.

There are many CPGs implementation strategies, but only a few incorporating CPGs into medical education.

A new comprehensive educational program (CEP) has been developed to disseminate information about CPGs.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Develop and assess implementation strategies.
2. Develop new educational program for undergraduate medical students.
3. Develop new interprofessional education for undergraduate medical and law students.

METHODS: We developed a CEP focused on various aspects of CPGs, and many workshops and lectures have been held since 2008. As a part of the CEP, and after the pilot version of the educational sessions in 2008/2009, the series of lectures for final-year medical students were listed to the standard curriculum in 2009/2010. Lectures have covered basic principles of systematic development, adaptation, evaluation and implementation of CPGs as well as search strategies for best evidence, applied legal and ethical aspect, using examples of different CPGs and methodological instruments (e.g., SIGN 50, ADAPTE, GRADE, AGREE). An interprofessional medico-legal problem-based learning program (M-L PBL) focused on the legal aspects of CPGs has been developed for both medical students and students of law, and held in November 2009. The object will be listed in standard curriculum of the Medical Faculty and the Faculty of Law from 2010/2011.

RESULTS: Lectures focused on CPGs, a compulsory object for final-year medical students (n = 180) in 2009/2010. Interprofessional M-L PBL for medical and law students. M-L PBL, an optional object in 2010/2011. Evaluation of the CEP.

DISCUSSION (CONCLUSION): We have found one of the best implementation strategies is to give the information about basic principles of their development, implementation, evaluation, and efficient use to the potential users/clinicians on the undergraduate level of their medical education.

TARGET AUDIENCE(S):

1. Guideline implementer
2. Developer of guideline-based products
3. Medical educator
4. Medical providers and executives

P88– Medico-legal interprofessional problem-based learning focused on clinical practice guidelines

Radim Licenik, MD (Presenter) (Palacky University Faculty of Medicine, Olomouc, Czech Republic); Katerina Ivanova, PhD (Palacky University Faculty of Medicine, Olomouc, Czech Republic); Maxim Tomoszek, JD (Faculty of Law, Palacky University, Olomouc, Czech Republic); Martin Faix, JD (Faculty of Law, Palacky University, Olomouc, Czech Republic); Katerina Cervena, MSc (League of Human Rights, Brno, Czech Republic)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Incorporating guidelines into medical/non-medical professional education

BACKGROUND (INTRODUCTION): The Centre for Clinical Practice Guidelines of the Department of Social Medicine and Health Policy, Faculty of Medicine and Dentistry, Palacky University in Olomouc is concerned with issues of clinical practice guidelines (CPGs) as viewed from different perspectives, included medico-legal and ethical. The medico-legal aspects of health care have been becoming more important for both health care professionals and lawyers. Inspired by interprofessional education models, we developed innovative problem-based learning sessions focused on CPGs. One of the most important activities of the centre is education, thus, a new comprehensive educational program (CEP) has been developed to disseminate information about CPGs.

LEARNING OBJECTIVES (TRAINING GOALS):

1. Identify different implementation strategies.
2. Get inspired by innovative medico-legal problem-based learning.

METHODS: We developed the CEP focused on various aspects of CPGs, and many workshops and lectures have been held since 2008. A new interprofessional medico-legal problem-based learning program focused on the legal aspects of CPGs has been developed for both medical students and students of law and held in November 2009 for the first time. The case is based on the judgment of the Supreme Court of the Czech Republic, and different problems are identified by medical and law students during the problem-based learning sessions. This new object will be listed in standard curriculum of the Medical Faculty as well as the Faculty of Law from 2010/2011.

RESULTS: Interprofessional medico-legal problem-based learning program focused on legal aspects of CPGs for medical (n = 4) and law (n = 4) students, a pilot version. Medico-legal PBL as an optional object in 2010/2011. Evaluation of the CEP.

DISCUSSION (CONCLUSION): We have found it extremely valuable to put together two such different professions as future physicians and lawyers.

TARGET AUDIENCE(S):

1. Lawyers
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Health care policy analyst/policy-maker
7. Medical providers and executives

P89– The Map of Medicine's Adoption Framework: Localization of guideline-based care pathways

Gajan Srikanthan, MBBS (Presenter) (Map of Medicine, London, England, United Kingdom)

PRIMARY TRACK: Guideline implementation

SECONDARY TRACK: Other guideline implementation

BACKGROUND (INTRODUCTION): The implementation of recommendations contained within clinical practice guidelines is essential for health care organizations to provide evidence-based practice. Map of Medicine incorporates guideline recommendations, together with latest secondary literature and practice-based knowledge, into a diagrammatic pathway that represents best practice for a specific condition. Pathways traverse different care settings and involve varied health care providers, all of whom are grouped into a local health community (LHC).

LEARNING OBJECTIVES (TRAINING GOALS):

1. LHCs look to improve services by using Map of Medicine's pathways as a starting point.
2. Redesign is facilitated using the Map's Adoption Framework. Based upon program and project management methods, the Framework enables an LHC to progress through three phases.

METHODS: In the planning phase, strategic objectives are developed through direct engagement with managerial and clinical executive officers. Determining governance structures is key.

RESULTS: During the localization phase, a pathway is adapted by local clinical champions representing all relevant stakeholders. Changes are made that will best help achieve delivery of the pre-defined strategic objectives. While a Map of Medicine pathway covers an entire care journey, the clinical champions are advised to adapt only those parts needed to elicit the required change. In the benefits realization phase; clinical champions and executives are encouraged to re-analyze their local data to assess whether outlined objectives have been met. The results of this re-analysis will inform the next planning phase, driving forward the improvement cycle.

DISCUSSION (CONCLUSION): It is envisaged that once an LHC becomes experienced in this phased approach, the cyclical process will continue without assistance from the Map. We are already seeing this with eight LHCs. Innovation

is further catalyzed by the sharing of locally adapted pathways and experience between LHCs.

TARGET AUDIENCE(S):

1. Clinical researcher
2. Evidence synthesizer, developer of systematic reviews or meta-analyses
3. Guideline developer
4. Guideline implementer
5. Developer of guideline-based products
6. Quality improvement manager/facilitator
7. Medical educator
8. Health care policy analyst/policy-maker
9. Medical providers and executives
10. Allied health professionals
11. Consumers and patients representatives
12. Nurses

P90– The translation of SDCEP Guidance on Dental Caries in Children into practice

Douglas Stirling, PhD (Presenter) (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Heather Cassie, BSc (University of Dundee, Dundee, Scotland, United Kingdom); Debbie Bonetti, PhD (University of Dundee, Dundee, Scotland, United Kingdom); Linda Young, PhD (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Gillian MacKenzie, PhD (NHS Education for Scotland, Dundee, Scotland, United Kingdom); Jan Clarkson, PhD (University of Dundee, Dundee, Scotland, United Kingdom)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Other guideline implementation
BACKGROUND (INTRODUCTION): The Scottish Dental Clinical Effectiveness Programme (SDCEP) is developing guidance on the Prevention and Management of Dental Caries in Children. This builds on previous evidence-based guidelines (SIGN 47 & 83) and aims to support dental teams in providing appropriate preventive care and in making decisions about caries management options.

The aim of this study was to identify current practice and beliefs about behaviors associated with key recommendations within the guidance to inform both guidance development and implementation.

LEARNING OBJECTIVES (TRAINING GOALS):

1. To understand how SDCEP gains an appreciation of guidance implementation concerns.
2. To understand how knowledge of current practice and beliefs about key behaviors may inform implementation interventions.

METHODS: A cross-sectional survey was sent to key stakeholders and a random sample of dental health professionals during the guidance consultation. Questions to elicit self-reported behavior and beliefs toward 15 behaviors identified as key to successful implementation of the guidance were included. In addition, semi-structured interviews were conducted with a sample of dental professionals to better understand barriers and facilitators associated with following the guidance recommendations.

RESULTS: Forty-four questionnaires were completed and 15 interviews conducted. On average, each respondent carried out only eight of the 15 key behaviors in their daily practice. Fifty percent reported that they intend to change their practice having read the guidance, on average by complying with one additional behavior. Of the least performed behaviors, all were perceived to be important, but two were identified as particularly difficult, suggesting that a single intervention is unlikely to be sufficient to change professional behavior in line with the guidance recommendations.

DISCUSSION (CONCLUSION): The guidance document– in the format distributed for consultation and/or alone–is unlikely to result in the implementation of all recommended behaviors. The approach described provides valuable insight into current practice, likely impact of the guidance, and potential implementation interventions.

TARGET AUDIENCE(S):

1. Guideline developer
2. Guideline implementer

P91– An indicator to improve quality of multidisciplinary review meetings for cancer patients

Sophie Goubet (Presenter) (Haute Autorité de Santé, La Plaine Saint Denis, France)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/ quality incentives and guidelines
BACKGROUND (INTRODUCTION): The French National Authority for Health (HAS) generalizes quality indicators (QIs) in health care organizations (HCOs).

LEARNING OBJECTIVES (TRAINING GOALS):

1. To analyze quality of multidisciplinary review meetings (MRMs) for cancer patients using a QI.
2. To obtain benchmarking data and bring about an inciting effect on the improvement of the professional practices.

METHODS: The QI was elaborated by the French National Institute for Medical Research (INSERM), taking into account the national cancer plan (2003), ministerial regulations (2005), and guidelines established by the National Cancer Institute, HAS, and health professionals (2006) providing quality standards for MRMs. Before carrying out generalization of this QI in HCOs for cancer patients, it was tried out in voluntary HCOs. Eight-two HCOs collected data on 60 random medical records. Each HCO got its results accompanied by references (national, regional, and by type of HCO) in order to compare each other. The QI was defined as the proportion of cancer patients at initial phase of treatment with a dated MRM report and for which treatment decision-making was realized by at least three different specialized physicians.

RESULTS: There were 4114 medical records analyzed. Mean rate was rather poor (27%). The comparison between HCOs showed an important difference between the lowest rate (0%) and the highest rate (87%, 95% CI 78-95). MRM reports at initial phase of treatment were missing in 32% of cases. MRM

reports without the names of three different physicians or their specialties were standards with the worst conformity: respectively, 17% and 55%. Undated MRM reports and without-a-treatment decision-making were standards with better results: respectively, 3% and 4%.

DISCUSSION (CONCLUSION): This experiment shows that quality of MRMs for cancer patients can be highly improved and allows one to objectify standards on which the HCOs must do their utmost. This QI will be included in the French national accreditation procedure for HCOs and its collection will be done every year for generalization.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Medical providers and executives
7. Allied health professionals
8. Consumers and patients representatives
9. Nurses

P92– Assessment of post-acute phase management of myocardial infarction using quality indicators

Sophie Goubet (Presenter) (Haute Autorité de Santé, Saint Denis La Plaine, France)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): French acute care HCOs have collected data on six mandatory quality indicators (QIs) relating to post-acute phase management of myocardial infarction (MI) for two successive years (2009 and 2010). These QIs were elaborated taking into account European and American guidelines, and clinical practice guidelines provided by the French National Authority for Health.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To compare 2009 and 2010 QI results in order to assess evolution in quality of post-acute phase management of patients with MI.
2. To analyze variability between HCOs.
METHODS: All acute care HCOs collected retrospective data on 60 random medical records (principal diagnosis: MI). A paired t-test was applied to compare 2009 and 2010 QIs means. Variability between HCOs was analyzed when the paired t-test was significant. QIs with fewer than 30 records were excluded from the analysis (QI3 Level 2 ACE inhibitor at discharge if LVEF < 40% and QI6 Advice on stopping smoking).
RESULTS: In January 2010, 29 HCOs completed data collection (8%); 1580 medical records were analyzed in 2009 and 1517 in 2010. Improvement was significant for 3 QIs ($P <$ 0.05; QI1 Aspirin/clopidogrel at discharge with mean 2009 = 92% and mean 2010 = 96%; QI4 Level 2 Monitoring statin use by lipid lab test with mean 2009 = 10% and mean 2010 =

26%, and QI5 Advice on diet with mean 2009 = 37% and mean 2010 = 51%). There was no significant difference between 2009 and 2010 means for all other QIs (QI2 beta-blocker at discharge, QI3 Level 1 LVEF measurement, and QI4 Level 1 Statin at discharge). In 2010, there was variability between HCOs for QI4 Level 2 and QI5, except for QI1.

DISCUSSION (CONCLUSION): In spite of these encouraging interim results (full data collection will be completed in March 2010), there is still room for improving management of MI after acute phase. Variability for QI1 will be checked when all HCOs will have performed their 2010 data collection. If results are confirmed, maintenance of QI1 will be discussed with health professionals.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical educator
6. Medical providers and executives
7. Allied health professionals
8. Consumers and patients representatives

P93– Code SMART: The use of an early alert system to increase compliance with sepsis bundles

Noeen Ahmad, DO (Presenter) (Newark Beth Israel Medical Center, Newark, New Jersey);
Jennifer Larosa, MD (Newark Beth Israel, Newark, New Jersey)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): Septic shock is one of the leading causes of mortality in the world. Organizations such as the Surviving Sepsis Campaign have developed sepsis management and resuscitation bundles to help physicians treat sepsis and reduce mortality.

Early alert systems, such as Code STEMI, also have been known to reduce mortality. We hypothesized that an early alert system for septic shock would help improve compliance of treatment and thus reduce mortality. We coined the phrase "Code SMART" for Sepsis Management Alert Response Team.

LEARNING OBJECTIVES (TRAINING GOALS):
1. Identification of patients with septic shock.
2. Implementation of sepsis management bundles and resuscitation bundles.
METHODS: Emergency room personnel can call a Code SMART based on a screening tool. This overhead alert system would alert the intensive care unit physician and nurses, pharmacy, and bed management that a patient was suspected to be in septic shock. Another order set including elements of the sepsis management bundle and resuscitation bundle would be implemented.

RESULTS: A total of 58 patients were included in this study, 29 in the Code SMART group and 29 in the non-Code SMART group. Statistically significant points between the Code SMART and non-Code SMART groups were serum lactate and antibiotic use within 3 hours. More serum lactate levels were drawn with the Code SMART group when compared to the non-Code SMART group (97.1% vs. 66.7%, P-value $<$ 0.003). Antibiotic use within 3 hours was higher for Code SMART versus non-Code SMART; 94.1% and 50.0%, respectively (P-value $=$ 0.0001). Other elements of the bundles such as fluids, steroids, $ScVO_2$ measurement, did show higher compliance among the Code SMART group versus the non-Code SMART group, but did not meet statistical significance.

DISCUSSION (CONCLUSION): Code SMART increases compliance with the elements of the sepsis management bundles and the resuscitation bundles.

TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Allied health professionals
4. Nurses

P94– Developing quality indicators from guidelines
Itziar Etxeandia-Ikobaltzeta, PharmD (Presenter) (Basque Office for Health Technology Assessment, Vitoria-Gasteiz, Araba, Spain);
Rosa Rico-Iturrioz, MMed (Basque Office for Health Technology Assessment, Vitoria-Gasteiz, Spain);
Charo Quintana-Pantaleón, MD (Valdecilla Hospital, Santander, Spain); Luis Fernández-Llebrez, MD (Osakidetza, Barakaldo, Spain)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): Internationally, both groups of developers of clinical practice guidelines (CPG) and Quality Agencies recognize that CPGs are a systematic and evidence-based tool to develop health quality indicators. Spanish CPG Program recommends simultaneous development of the CPG along with the corresponding quality indicators.
LEARNING OBJECTIVES (TRAINING GOALS):
1. To develop quality indicators from the Intrapartum Care CPG to be used: to monitor the implementation;
2. To include in Patient Safety Programs;
3. To measure compliance with standards of quality; and
4. To include into the Indicators Bank of the National CPG Program in Spain.
METHODS: The guideline development group was asked to prioritize the key recommendations for the development of indicators. A systematic search of indicators was made from relevant sources. The criteria to develop the indicators were the following: to be relevant to avoid risks, to facilitate the removal of ineffective practices, to encourage innovative changes and to improve mothers' participation in decision-making during

labor, and thereby fulfill the main goal of improving care delivery, avoiding unnecessary instrumentation. These indicators will be validated and prioritized in the coming months through a pilot study in two obstetrical units.
RESULTS: Thirty-one indicators were developed. Nineteen of these can measure innovative changes in clinical practice in Spanish context (e.g., one-to-one care by midwife during labor). Twelve of them address mothers' participation in decision-making (e.g., choice of position). Ten are related with instrumental birth (e.g., routine episiotomy). Eighteen refer to safety and removal of unnecessary practices (e.g., fundal pressure and neonatal nasogastric intubation).
DISCUSSION (CONCLUSION): The validation results will be presented in the 2010 GIN conference. These indicators can be used for monitoring CPG implementation and for national programs to improve health quality.
TARGET AUDIENCE(S):
1. Guideline developer
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator

P95– Guideline implementation for patients with non-small cell lung carcinoma in the Netherlands: Toward improvements in the quality of care
Chantal C. Holtkamp, PhD (Presenter) (Association of Comprehensive Cancer Centres, Groningen, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): In the Netherlands, the ACCC facilitates and coordinates the development and implementation of evidence-based national guidelines on diagnosis and treatment of non-small cell lung carcinoma (NSCLC) (www.oncoline.nl).
PURPOSE: Implementation of the guideline NSCLC and as a result improved quality of care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Give insight into the level of guideline compliance and/or implementation after development.
2. Understand how a web-based registration system of the performance of hospitals supports the guideline implementation.
METHODS: A national expert team formulated indicators based on the actual national guideline of NSCLC to get information on the organization and the accessibility of care and some professional issues. A web-based registration system was built in which the teams themselves could register data of all their NSCLC patients. The project started in October 2008 and will be closed in May 2010.
RESULTS: In this project, 45 of 100 Dutch hospital teams participated. Currently, more than 2700 NSCLC patients are registered. The results over the total project period give insight into the organization and the accessibility of care, like waiting

times. Participation of professionals in a multidisciplinary meeting is registered, as well as the presence of psychosocial care, involvement of an oncology nurse, and communication to the general practitioner.

DISCUSSION (CONCLUSION): The preliminary results after one year are promising. Improvement on many of the indicators, like the overall diagnosis time and the throughput time to treatment, is realized. More patients visit an oncology nurse during the diagnostic process and are asked about their psychosocial needs. The final results will be presented at the conference.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline implementer
3. Developer of guideline-based products
4. Quality improvement manager/facilitator
5. Medical providers and executives
6. Allied health professionals
7. Consumers and patients representatives
8. Nurses

P96– Guideline implementation in physical therapy: Overview of the GIPhT study

Geert Rutten, MPH (Presenter) (Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands); Janneke Harting, PhD (AMC UvA, Amsterdam, Netherlands); Rob Oostendorp, PhD (Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands); Nanne de Vries, PhD (Maastricht University, Maastricht, Netherlands)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): Adherence to the Dutch physical and manual therapy guidelines for low back pain is moderate. This limits the effectiveness and efficiency of care.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Apply a planned and theory-based approach to assess determinants of use of guidelines.
2. Identify various levels of intervention with their specific determinants to enhance adherence.
3. Apply Intervention Mapping to develop an evidence-based program to improve implementation.
METHODS: We applied Rogers' Diffusion of Innovations Theory together with specific behavioral and organizational theories during data collection, data analysis, and intervention development. The problem of non-adherence was analyzed through four focus group interviews (n = 30) and a longitudinal survey amongst 397 therapists (questionnaires, clinical vignettes). We applied the Intervention Mapping method to develop the intervention. Data were used to compose a risk model and to formulate program objectives. Objectives were linked to applicable theoretical methods and effective practical strategies of change. Subsequently, methods and strategies were combined into a coherent program. A pilot test of the program was performed with eight physiotherapy practices (8

quality managers and 32 therapists). This pilot was accompanied by a process and effect evaluation.

RESULTS: We identified five levels of change: individual therapists, practice quality managers, guideline developers, professional organization, and patients. Objectives for individual therapists were: being aware of performance, clinical reasoning, commitment toward guidelines, self efficacy, patient recording, use of measurement instruments, and dealing with psychosocial factors. On the practice level, quality managers should develop, implement, monitor, and maintain a quality improvement process. Since unawareness of personal performance was a central determinant in the final program, self-regulation was the major method of change. Important practical strategies were lectures, deliberation, practical exercises, and vicarious learning.

DISCUSSION (CONCLUSION): A planned and theory-based approach requires an effort, but results in a feasible and valuable program aimed at individual physical therapists and quality managers for the stepwise improvement of guideline implementation of physical therapy care for patients with low back pain.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline implementer
3. Quality improvement manager/facilitator
4. Health insurance payers and purchasers
5. Allied health professionals

P97– The Physicians' Practice Assessment Questionnaire: A new tool to assess asthma and chronic obstructive pulmonary disease guidelines implementation

Louis Philippe Boulet, MD (Presenter) (IUCPQ, Québec, Québec, Canada)

PRIMARY TRACK: Guideline implementation
SECONDARY TRACK: Performance measures/indicators/quality incentives and guidelines
BACKGROUND (INTRODUCTION): Tools for assessing guidelines implementation are needed.
LEARNING OBJECTIVES (TRAINING GOALS):
1. Describe the Physicians' Practice Assessment Questionnaire (PPAQ), a tool designed to assess chronic obstructive pulmonary disease (COPD) guidelines by clinicians.
2. Assess the properties of this questionnaire.
METHODS: The PPAQ provides an "implementation score" determined by the percentage of patients in whom physicians estimate that they implement asthma and COPD Canadian guidelines key recommendations. Its properties were assessed in a group of 47 general practitioners (GPs), and test-retest data were obtained in repeating the questionnaire at a five-week interval without intervention in a sub-group of 28 practitioners.
RESULTS: Answers to the various questions were globally reproducible, although less so for COPD. The lowest scores (recommendations implemented in less than 50% of their patients) were: 1) for both asthma and

COPD: referral for patient education, provision of a written action plan, and regular assessment of inhaler technique; 2) for asthma: referral to a specialist for difficult-to-control asthma or uncertain diagnosis; and 3) for COPD: assessment of lung function and disability according to specific criteria and referral to a rehabilitation program. The analysis showed sufficient internal consistency for both questionnaires (Cronbach alphas 0.7617 for asthma and 0.8317 for COPD). Pearson's correlations indicated relatively good test-retest (r = 0.6421, P = 0.0002 for asthma; r = 0.6801, P < 0.0001 for COPD). Responsiveness to change will soon be assessed in a cohort of GPs taking part in a targeted educational initiative on asthma and COPD.

DISCUSSION (CONCLUSION): In conclusion, the PPAQ is a new tool to assess implementation of asthma and COPD guidelines; it has the potential to identify care gaps in order to target interventions to address those last.

TARGET AUDIENCE(S):
1. Clinical researcher
2. Guideline developer
3. Guideline implementer
4. Developer of guideline-based products
5. Quality improvement manager/facilitator