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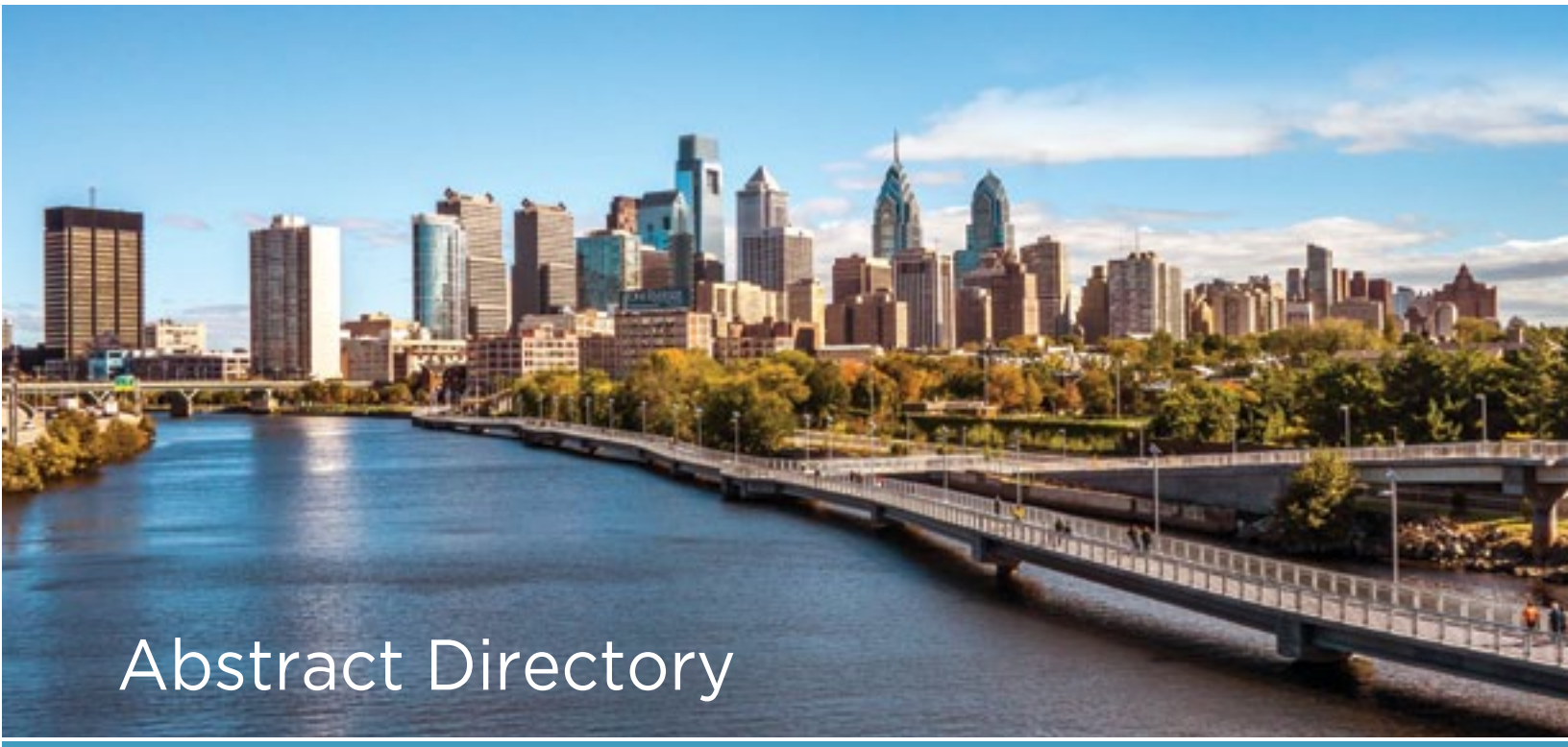

# Abstract Directory

Individualised Guidelines and Clinical Performance Measurement in an Era of Personalised Medicine


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## Opening Plenary
### Individualising Guidance in an Era of Personalized Medicine - Patient Preferences

Presenter: Douglas Owens, MD, PhD – Stanford University
Presenter: Fergus Macbeth, MD
Presenter: Lelis Vernon, BA

#### How can we individualize guidelines in the era of personalized medicine?
Douglas Owens, MD, PhD

As the era of personalized medicine advances, more detailed genetic and biologic information will be available about individuals. How can clinicians take guidance developed for populations and apply it to a patient with an individual biologic profile defined by factors such as genetics, comorbidities, and age? Can guidelines be developed in such a way that facilitates this individualization? In this talk, we will consider the challenges for developing and using guidelines in a way that integrates population-based and individual information.

#### Personalised Medicine - Bright Future or False Dawn?
Fergus Macbeth, MA, DM, FRCP, FRCR

Some argue that personalised medicine will transform clinical care in the near future by tailoring treatment more precisely to the individual. But is this just the latest manifestation of a two-hundred year trajectory of improving diagnostics and better understanding of people's specific risk profile? In this talk I will explore what the concept of personalised medicine means and how the new developments will affect the clinical encounter and the development of clinical guidelines. Will human interaction and experience become subservient to digital algorithms? I will discuss how far clinical guidelines can be 'personalised' and what effects the drive to personalised medicine might have on health equity both nationally and internationally.

#### Translating Clinical Guidelines Development into Personalized, Patient-Centered Healthcare
Lelis Vernon, BA

The presentation will be focused on providing the audience tips as well as concrete examples on how to embed the patients' perspectives, voice and expertise in the guidelines creation processes. Specifically, the speaker will present the audience a dynamic example for building a partnership with patients to engage them as active participants in the translational blocks from basic science to clinical research continuum, including current standards issued by the IOM (now NAM) for developing trustworthy clinical guidelines. Through personal experience as patient, parent advocate, family mentor and healthcare consultant, the speaker will illustrate how patient participation is being done around the United States and globally.

## Plenary Panel 1
Translating Guidelines to Performance Measures in an Era of Accountability

Presenter: Diane Watson, PhD
Presenter: Kate Goodrich, MD – Center for Medicare and Medicaid Services
Presenter: Anke Bramesfeld, MD – European Commission, Joint Research Center

### Improving Transparency, Accountability, and Quality and Safety Standards in Australia
Diane Watson, PhD

Since 2012, Australia has rapidly increased the public availability of information on geographic variation in health and care and standards of practice. Recent work has revealed unwarranted variation in quality and safety where the right care for all local areas is clear. New information has also shed light where the right rate is less clear but there is agreement on what improvement should look like.

Accordingly, recommendations for policy-makers, regulatory bodies and clinicians have emerged and an array of interventions has occurred in the land down under. This presentation will review the result of four years of intensive work to enhance transparency on the comparable performance of health care organisations, highlight evidence of variations in practice which raised questions about appropriateness, and point to the role of clinical guidelines, hospital standards and accountability in driving the next wave of quality improvement.

### Quality Payment Program
Kate Goodrich, MD

Overview: Learn about the Centers for Medicare & Medicaid Services Quality Payment Program (QPP) which streamlines multiple quality reporting programs into the new Merit-based Incentive Payment System (MIPS) which is mandated by the Medicare Access & CHIP Reauthorization Act of 2015 (MACRA). The QPP also provides incentive payments for participation in Advanced Alternative Payment Models (APMs).

In an effort to provide the strategic measurement framework to support the QPP, the measure development plan informs CMS prioritizations of MACRA-funded measure development over the next five years and will set expectations for MACRA-funded measure developers.

Conclusion: CMS is building and implementing a user-centric program through ongoing stakeholder outreach and engagement. All of these efforts will help our health system achieve the goals of Better Care, Smarter Spending, and Healthier People.

## Plenary Panel 1
Translating Guidelines to Performance Measures in an Era of Accountability

### Translating Clinical Guidelines into Performance Measurements - The Challenge of being both Relevant and Feasible

Anke Bramesfeld, MD

Today an increasing number of quality assurance (QA) programmes are set up to assess the quality of healthcare facilities at a national or even European level. Depending on the perspective and aim of a QA programme, the implicit concepts of "quality of care" - thus the approach - may differ. This presentation will discuss challenges in the development of requirements and indicators of two QA programmes that aim to take a patient-centred approach. In this context 'patient-centred' means that (i) performance measurements consider patients' priorities as the main quality outcome, and (ii) performance measurements orient along the patient's treatment pathway.

The objectives of patient-centred QA programmes include, beyond transparency to patients and other stakeholders, health service performance improvement, and, in case a programme is mandatory, also guaranteeing service providers' accountability in a regulatory sense. Challenges in identifying QA requirements and indicators are discussed based on examples from two QA programmes: the mandatory QA programme of the German healthcare system and the voluntary European QA Scheme for Breast Cancer services of the European Commission Initiative for Breast Cancer's (ECIBC) that is currently under development. The challenges relate to (1.) basing requirements and indicators on evidence, (2.) ensuring that requirements and indicators are relevant with respect to patients' priorities, and (3.) making sure that requirements and indicators are at the same time feasible. Even the most relevant requirements and indicators are useless if they cannot be implemented throughout services or, if they are incapable of distinguishing between good and poor quality of care.

Implementability should be seen as one of the major challenges in QA-programmes. QA-programmes that are mandatory need to be implementable by all concerned service providers and are restricted by a number of legal regulations. Also the voluntary European QA-scheme for breast cancer services of the ECIBC aims for being implementable for all breast cancer services. Therefore, it needs to accomplish breast cancer services in more than 30 healthcare systems.

## Plenary Panel 2
Incorporating Alternative Forms of Evidence into Guidelines

Presenter: Jane Noyes, DPhil – Bangor University
Presenter: Martin Kohn, MD – Chief Medical Scientist, Sentrian
Presenter: Teun Zuiderent-Jerak, PhD – Linköping University

### Never Mind the Qualitative – Feel the Depth! Incorporating Qualitative Evidence on Intervention Feasibility, Acceptability and Implementation in Guideline Development

Jane Noyes, DPhil

Methods for qualitative evidence synthesis, and integration of qualitative and quantitative evidence, have evolved significantly over the last 10 years. There is now a global critical mass of experienced qualitative and mixed-method reviewers and a range of methods with sufficiently high quality exemplars to draw on. Systematic review organisations (such as Cochrane) are supporting methodological innovation and development and registration of such reviews in the Cochrane Library. Commissioners of research (especially in the UK) are requesting and funding qualitative and mixed-method syntheses to answer complex questions concerning complex phenomena and interventions. Guideline developers such as the World Health Organisation have changed their practice to enable the incorporation of qualitative evidence in the guideline development process. In turn, the incorporation of synthesised qualitative evidence has required additional methodological innovation to: report findings in a specific way; include qualitative evidence in decision frameworks; assess the confidence of synthesised findings, and support the guideline panel to make best use of qualitative evidence in the decision-making process. This presentation will draw on personal experience of being part of the team that developed the first WHO guideline to incorporate qualitative evidence that entailed registering and publishing the first qualitative evidence synthesis in the Cochrane Library and undertaking a lot of methodological innovation and development in real time!

## Plenary Panel 2
Incorporating Alternative Forms of Evidence into Guidelines

### Guidelines, Personalized Healthcare and Real World Data
Martin Kohn, MD

Guidelines have been a key component of "evidence-based" medicine. Guidelines are often based on randomized controlled trials (RCTs) and issued as consensus documents by committees. As such, they are only partially objective evidence. Personalized decision making is now an important objective in transforming healthcare into a value based, less wasteful future. Traditional guidelines are limited in their ability to support that transformation:

1. The underlying RCTs are really population studies, comparing one group against another and revealing little about the individuals in the comparison groups
2. Most RCTs focus on the response to an intervention focused on one disease, such as COPD, whereas many patients have multiple diagnoses.
3. Serious questions are being raised about the reliability of published RCTs.
4. Guidelines for patients with multiple conditions (e.g. CAD, COPD and Diabetes) are rare or nonexistent.

These patients cannot be ideally managed by optimizing management of each of the diseases as treatment of one disease may make symptoms of the others worse.

Conclusion
Personalized healthcare will require using large amounts of information about many people over extended periods of time. The time limited and restricted environment of RCTs will contribute to, but no longer dominate the generation of medical evidence. Comparative and predictive analytics, using many kinds of data, including real world data from patients' actual lives, will develop a progressively expanded role in generating evidence for improved decision making. The real world data approach may be the only way to learn how to manage the more complex patients we are seeing today.

## Plenary Panel 2
Incorporating Alternative Forms of Evidence into Guidelines

### The Pitfalls and Promises of Appraising and Including Different (AID) Knowledge
Teun Zuiderent-Jerak, PhD

The importance of appraising and including many different kinds of knowledge in guideline development is widely recognized. Guidance based on a narrow definition of evidence can limit its use for individual patients and unique situations in clinical, public health and social care practice. This makes appraising and including different knowledge crucial to facilitating personalized medicine while its application faces substantial challenges. This presentation discusses three common pitfalls.

First pitfall: Appraisal of non-RCT knowledge is not done formally. Whilst there are appraisal tools and processes for assessing the quality of non-RCT evidence, these are often applied less rigorously, and there remain large areas of methodological uncertainty and debate on their use and interpretation.

Second pitfall: Inclusion is based only on the frequency of occurrence of a finding. Frequentist reasoning is highly important for assessing RCT-based knowledge, and is at times applied to other knowledge domains; such reasoning may not be appropriate. Other knowledge, derived from e.g. qualitative research and research on preferences, is therefore easily excluded or considered of less value.

Third pitfall: Different knowledge can be added up in a summative logic. The common practice of starting to search for the 'best' knowledge in a hierarchy of evidence to then add other types of knowledge, limits what different types of knowledge can contribute. The type of knowledge searched should depend on the question being asked. The 'bringing together' of this knowledge may not then be summative but more formative.

These pitfalls will be illustrated by empirical examples from guideline development practices. In addition, more promising examples will be presented. Promising applications conduct formal appraisal, apply diverse styles of scientific reasoning, and recognize the value of different types of knowledge. Still, appraising and including different knowledge is complex and further guidance on its use in guideline development is needed.

## Plenary Panel 3

Innovative Efficiencies in Guideline Development, Maintenance, and Adaptation: A Look to the Future

Presenter: Paul Shekelle, MD, PhD – Greater Los Angeles VA Health Care System
Presenter: Mark Baker, MD, PhD – National Institute for Health and Care Excellence
Presenter: Naohito Yamaguchi, MD, PhD – Professor and Director, Minds Guideline Center, Japan Council for Quality Health Care

### Keeping Guidelines Up to Date: Progress and Challenges

Paul Shekelle, MD, PhD

Keeping clinical practice guidelines up to date remains a major challenge for guideline developers. A particular challenge is the time and effort needed for the systematic review. I will describe our efforts to develop and validate methods that include machine-learning update searches for new evidence. How new evidence then is evaluated and incorporated into a guideline will require a re-conceptualization of what constitutes accepted guideline development methods.

## Plenary Panel 3
Innovative Efficiencies in Guideline Development, Maintenance, and Adaptation: A Look to the Future

### Maintaining the Currency of a Large Guidelines Portfolio; Necessity is the Mother of Invention
Mark Baker, MD, PhD

NICE has been developing guidelines for more than fifteen years and has an extant portfolio of over 225. By 2020, this will have risen to around 325 (229 clinical, 64 public health, 8 medicines practice, 12 social care, 12 cancer service guidance). To fully update these guidelines every ten years would require almost double the capacity we will have; and more than half of guidelines require updating in four years.

Guideline currency is reviewed every two years with a scope review every four years. The requirement to update at two years is uncommon. Our methods and processes manual, now unified across all programmes, is updated annually with a major revisit every three years. Major changes to evaluation of research were introduced in 2009, including GRADE, and in 2012 (MID) so that guidelines developed using earlier versions might not represent current standards. Three major changes to process have been developed to help maintain the currency of the portfolio.

1. Standing Committees to develop short updates
2. Standing Committees to develop full updates
3. 'Live guidelines' responsive to government-funded research and the equivalent

Standing Committees for short updates
For three years we have been using Standing Committees with topic experts to complete small updates to guidelines, usually driven by individual studies, changes in policy or other external factors. Each Committee can complete four updates per year. Of the four Committees, two can use standing expert groups to offer a continuous updating function, e.g. for Type 2 diabetes, where the knowledge base requires it.

Standing Committees for full updates
The model is now being extended to conduct full(er) updates also using standing generalist and specialist members. By carrying out scoping and validation in hosted specialist teams, we can double the output of updated guidelines from the available capacity.

Research-responsive updates
No longer able to sustain a two yearly review of all guidelines, we are now moving to a 4-5 year review regime supported by direct input from national research programmes enabling the rapid updating of guidelines.

These measures will, eventually, dominate all guideline development activity other than for occasional topics identified by either NICE, or Government departments, as requiring new guidelines.

## Plenary Panel 3

Innovative Efficiencies in Guideline Development, Maintenance, and Adaptation: A Look to the Future

### Internet-Based Support for Guideline Development, Maintenance, and Adaptation in Japan: Current Situation and Future Direction

Naohito Yamaguchi, MD, PhD

When Minds Guideline Center initiated it activities in 2002, clinical practice guidelines (CPGs) developed in Japan were mostly nothing but textbooks with a little more extensive citation of literature. Inspired by the report by the Institute of Medicine in 2011, we started advising CPG developers to adopt internationally established methods of development with systematic review and assessment of benefit-harm balance. Most CPGs are, however, still published as books in Japan; one important reason is that CPG developers continue depending on editing services of publishers. Faced on this situations, Minds decided to provide an Internet-based editing tools, in which standard templates of tables are provided as spread sheets and a CPG can be edited online by combining such spread sheets and texts files. Taking into account the fact that quite a few CPGs are duplicated worldwide for the same topic, Minds also advises the importance of CPG adaptation, but adaptation is yet to be adopted in Japan, partly because developers do not know the method of adaptation. Minds should play a role in this area, by providing a method guide and online tools, which systematically supports the development of CPG by adaptation. It is hoped that the ideas and methods for efficient and reliable CPG development are further shared internationally in G-I-N communities.

## Plenary Panel 4
Leveraging Technology to Promote Guideline Implementation

Presenter: Kevin Larsen, MD – Centers for Medicare and Medicaid Services
Presenter: Lawrence Mbuagabaw, MD, PhD – McMaster University
Presenter: Per Olav Vandvik, MD, PhD – Associate Professor, Faculty of Medicine, University of Oslo

### Mobile Applications to Support the Implementation of Guidelines
Lawrence Mbuagabaw, MD, PhD

The advent of mHealth has ushered in a new wave of research and implementation endeavours to extend health care services to patients outside the traditional health care setting. These endeavours have focused on patients for the most part, delivered as medication reminders, appointment reminders, motivators, sources of information/education and means to deliver lab results. To a lesser extend health care providers are the subject of mobile health. There is some evidence suggesting that mHealth can boost health care outcomes, but it is unclear what is needed to support providers in the implementation of guidelines. Issues which must be addressed are the type of device or platform, type of message, timing and tailoring, the complexity and multiplicity of relevant guidelines and acceptability of the guidelines.

### Using Health IT to Improve Outcomes - A Federal Perspective
Kevin Larsen, MD

The adoption of electronic health records, combined with the rapid change in payment in care models to outcome and performance based, has led to an increased demand for evidence based medicine and best practices to be easily integrated in clinical data systems. Through a combination of federal policy, standard setting, pilots and outreach the department of Health and Human Services is actively working to assure that a learning health system can speed the time from evidence to incorporation into practice through supporting more automated, 21st century approaches to dissemination into clinical data systems.

## Plenary Panel 4
Leveraging Technology to Promote Guideline Implementation

### Digital and Trustworthy Evidence Ecosystem for Increased Value and Reduce Waste in Research and Health Care: Fact or Fiction?

Per Vandvik, MD, PhD

Advances in standards, methods and tools for trustworthy guidelines hold promise for disseminating best current evidence to clinicians and patients at the point of care. eHealth solutions are emerging with digitally structured data in platforms for creating, publishing and dynamically updating systematic reviews and guidelines. More efficient and trustworthy evidence synthesis and dissemination is however not enough. Remaining problems include evidence production - with waste of biomedical research - and suboptimal implementation of evidence into practice.

Now, imagine a digital and trustworthy evidence ecosystem was in place to close the loop from production of high quality and relevant evidence to improved patient care and efficient use of health resources. In this evidence ecosystem people with a culture for collaboration and a common understanding of research methodology has moved out of their silos. Digitally structured data in integrated platforms at each step of the Ecosystem let evidence flow from its production onwards to evidence synthesisers, disseminators, implementers and improvers.

I will demonstrate how the evidence ecosystem is not merely a fiction but rather an emerging solution to facilitate implementation of evidence and guidelines into practice through innovative processes and technologies. Organisational barriers slow down innovations in evidence synthesis and dissemination. We have - together with the BMJ - therefore established a collaborative network network of clinicians, researchers, methodologists and patient representatives getting evidence synthesis and dissemination of trustworthy recommendations in place within 3 months after practice-changing evidence has emerged. These are published in multilayered formats on all devices for use by clinicians and patients (http://www.magicapp.org) as well as a novel synopsis publication format in the BMJ. Clinicians -as exemplified in primary care in Belgium and Finland - can access recommendations, evidence summaries and decision aids within decision support systems in the electronic health care record also allowing evaluation and improvement of practice.

## Oral Abstract Presentations

### (OR 01) Updating Nice Guidelines - Health Economics and the First 2 Years of the Clinical Guidelines Update Programme

First Author: Paul Crosland – Health Economist, National Institute for Health and Care Excellence
Second Author: Ross Maconachie – Technical Advisor (Health Economics), National Institute for Health and Care Excellence

**Background**
NICE has developed a suite of 215 clinical guidelines over 15 years. The evidence upon which these recommendations are based is constantly changing and full guideline updates take 2 years of development time. A more agile approach is required when only a small part of a guideline requires updating.

**Objectives**
The Clinical Guidelines Update Programme was established in 2014 to rapidly update discrete areas of guidelines in response to new evidence identified by the surveillance process.

**Methods**
The new programme consists of an advisory framework of standing committees and topic experts and an internal development team conducting evidence research and synthesis using the same methods as full guideline development.

**Results**
24 guidelines have been updated. Health economics has played an increasingly important role, from no economic evidence considered in the earlier updates to full economic modelling now being conducted for the majority. Personalised medicine has impacted the type of updates and economic evidence considered by the programme. For example, two recent updates are cascade and genetic testing for familial hypercholesterolaemia, and chemoprevention for familial breast cancer.

**Discussion**
Updating existing models developed for original guidelines has been challenging, as has undertaking new economic modelling within the timeframes of the rapid update process because of limited opportunities for interaction with the committee.

**Implications for guideline developers/users**
It is important to ensure that guidelines are updated so they stay relevant and reflect the best available evidence. The framework and lessons learned from the NICE Clinical Guidelines Update Programme can be used to inform guideline update programmes in other health care systems.

## Oral Abstract Presentations

### (OR 02) Sensitivity of Treatment Decisions to Bias Adjustment in Network Meta-Analysis

First Author: David M. Phillippo – Research Associate in Evidence Synthesis, University of Bristol
Second Author: Sofia Dias – Research Fellow, University of Bristol
Third Author: Nicky J. Welton – Reader in Statistical and Health Economic Modelling, University of Bristol
Fourth Author: Nichole Taske – Associate Director (Methodology), National Institute for Health and Care Excellence (NICE)
Fifth Author: Bhash Naidoo – Senior Technical Adviser, National Institute for Health and Care Excellence (NICE)
Sixth Author: A E. Ades – Professor, University of Bristol

**Background**
Network meta-analysis (NMA) combines evidence on multiple treatments from several studies to provide internally consistent treatment effect estimates and is frequently used to inform clinical guideline recommendations. Evidence is typically assessed for risk of bias using subjective tools and checklists; however these provide no information on the effects of potential bias on decisions based on the results of the NMA.

**Objectives**
We demonstrate a new method for quantifying the effects of bias adjustment on treatment decisions based on a NMA, applied to a series of examples from published NICE guidelines.

**Methods**
We propose a new method that provides quantitative assessment of the effects of potential bias adjustments, either to individual study estimates or to overall treatment contrasts, by deriving bias-adjustment thresholds within which the decision does not change. We extend our method to treatment decisions based on net benefit resulting from a probabilistic cost-effectiveness analysis.

**Results**
In most cases the treatment recommendation was robust to plausible biases in all but a small proportion of contrasts or studies. In larger, well connected networks with large numbers of trials, recommendations were robust against almost any plausible bias adjustments.

**Discussion**
Threshold analysis provides insight into the effects of bias adjustment on treatment decisions. Applying the method to treatment contrasts confers considerable flexibility, since practical applications are often based on complex models.

**Implications for guideline developers/users**
Guideline developers can have more confidence in treatment recommendations where bias-adjustment thresholds are large, focusing attention on the quality of decision-sensitive trials and contrasts, potentially reducing the need for laborious critical appraisal of all included trials.

## Oral Abstract Presentations

### (OR 03) Framework for Enhancing Clinical Practice Guidelines Through Continuous Patient and Public Engagement

First Author: Melissa J. Armstrong
Second Author: Juan-David Rueda
Third Author: Gary S. Gronseth
Fourth Author: C. Daniel Mullins

**Background**
Multiple institutions and quality instruments recommend patient/public involvement in clinical practice guideline (CPG) development, but approaches vary and there are currently no standards for best practice.

**Objectives**
To develop a ten-step framework outlining guideline development steps with opportunities for patient engagement at each step.

**Methods**
Guideline methodologists collaborated with the developer of a framework for continuous patient engagement in comparative effectiveness research to adapt that framework for guideline development. The resulting ten-step framework was then modified based on feedback and supplemented with examples of patient engagement at each step.

**Results**
At the guideline developer level, patients can assist in topic nomination (step 1), topic prioritization (step 2), and guideline development group selection (step 3). Within projects, patient preferences may be incorporated when framing the question (step 4), creating an analytic framework/ research plan (step 5), conducting the systematic review (step 6), developing recommendations (step 7), and during dissemination/implementation (step 8). Patients can again be engaged at the developer level by assessing updating needs (step 9) and evaluating approaches to patient engagement (step 10). Opportunities and required resources are different for each step.

**Discussion**
Patient engagement at each CPG step has different purposes, mechanisms, advantages, disadvantages, and implications for resource utilization. This framework outlines opportunities for patient/public engagement at the level of the developer and individual guideline.

**Implications for guideline developers/users**
This framework can serve as a resource for developers desiring to increase patient engagement and reference for researchers investigating engagement methodology at different steps of the CPG lifecycle.

## Oral Abstract Presentations

### (OR 04) Guidance for Modifying the Definition of Diseases: A Checklist

First Author: Per Olav Vandvik, MD, PhD – Associate Professor, Faculty of Medicine, University of Oslo
Second Author: Jenny Doust
Third Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians
Fourth Author: Paul Glasziou
Fifth Author: Allen Frances
Sixth Author: Ina Kopp, Prof, Dr – AWMF-Institute for Medical Knowledge Management
Seventh Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Eighth Author: Patrick Bossuyt
Ninth Author: Reem Mustafa
Tenth Author: Andrea Horwath

**Background**
Recent studies has highlighted the tendency for guideline writers to widen disease definitions, causing increasing proportions of the population to be labelled as unwell and potential harm to patients.

**Objectives**
We aimed to develop a checklist of the issues, with guidance, for guideline writers and others to consider prior to modifying a disease definition to ensure that disease definitions are based on the best available evidence of harms and benefits.

**Methods**
A multi-disciplinary working group of 14 members from the Guidelines International Network, GRADE and WHO applied a 5-step process to develop the checklist: 1) a literature review of issues; 2) a draft outline document; 3) a Delphi process of feedback; 4) a 1-day face-to-face meeting and 5) further refinement of the checklist, using a real life example from a national guideline group faced with a proposed change in the definition of gestational diabetes mellitus.

**Results**
We developed an 8-item checklist for modifying disease definitions based on 12 potential issues identified in the literature review: trigger for change in definition, definition differences, definition performance, impact on incidence/prevalence, natural history, benefits, harms, and balance between harms and benefits. The checklist is accompanied by an explanation of each item and guidance for adequate supportive evidence.

**Discussion**
The proposed checklist is a first step to guidance and better documentation of modifying disease definitions in the context of guidelines.

**Implications for guideline developers/users**
The checklist can be used to modify disease definitions and should be piloted and validated by groups developing new guidelines.

## Oral Abstract Presentations

### (OR 05) Reasons That the World Health Organization Guidelines Are Not Approved by the Guidelines Review Committee

First Author: Teegwende V. Porgo – PhD student, Population Health and Optimal Health Practice Research Unit, Department of social and preventative medicine, Faculty of Medicine, Universite Laval
Second Author: Susan L. Norris, MD, MPH, MS – The World Health Organization
Third Author: Mauricio Beller Ferri – The World Health Organization

**Background**
In 2007 the World Health Organization (WHO) established the Guidelines Review Committee (GRC) to ensure that guidelines have high quality standards. Improvements in the quality of published guidelines have since then been observed. However, a significant proportion of proposals and final guidelines are not approved by the GRC at first submission.

**Objectives**
To describe the reasons for non-approval of guidelines at first submission to the GRC.

**Methods**
One author reviewed GRC meeting minutes and extracted reasons for non-approval of proposals and final guidelines submitted for the first time during 2014 and 2015.

**Results**
31 proposals and 38 final guidelines were eligible, of which 18 (58%) proposals and 32 (84%) final guidelines were not approved. The reasons for non-approval of proposals included inadequate formulation of PICO questions (94.4%), inadequate diversity among guideline panel members or lack of clarity in their roles (100%), and failure to describe the considerations for formulating recommendations (100%). For final guidelines the reasons included suboptimal composition of the expert panel (71.9%) and problems with recommendations including an unclear rationale (100%).

**Discussion**
WHO's formal internal guideline review and approval processes identify problems with a significant percentage of submissions. Continued and focused efforts to improve key areas are needed to increase the efficiency of the processes and contribute to the quality of published guidelines.

**Implications for guideline developers/users**
A quality assurance process at a large and diverse organization is feasible and may contribute to the production of trustworthy and useful guidelines.

## Oral Abstract Presentations

### (OR 06) The Use of Modeling in Published Practice Guidelines: A Survey

First Author: Veena Manja – ,
Second Author: Gordon Guyatt – McMaster University
Third Author: Jean-Eric Tarride
Fourth Author: Kristina Thayer
Fifth Author: Kristen Magnuson
Sixth Author: Rachita Vaidya
Seventh Author: Ami Gordon
Eighth Author: Jessica Wignall
Ninth Author: Elie A. Akl – American University of Beirut
Tenth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University

**Background**
Statistical modeling is increasingly used to inform development of health care guidelines.

**Objectives**
Assessment of certainty of the evidence (quality, confidence in evidence) from modeling studies is essential to evaluate credibility of their results. This study describes the use of modeling in published practice guidelines, and the methods used to rate the certainty of the evidence generated through modeling.

**Methods**
We searched the national guideline clearinghouse for guidelines meeting its 2013 eligibility criteria, using a 'model' keyword search.

**Results**
29/45 guidelines reviewed included statistical modeling. 16/29 developed models specific to the topic. 13 guidelines used data from published modeling studies. Common stated purposes for modeling included economic evaluation (20), risk assessment(6), decision analysis(3), and determination of optimal screening interval(1). Only the NICE UK guidelines address the credibility of the modeling studies themselves – in doing so, they refer to the NICE methodology register/appraisal committee assessment of economic modeling studies. All models applied sensitivity analyses to assess the certainty of the evidence including probabilistic sensitivity analyses in twelve models. No model addressed overall certainty in the evidence for any outcome. Twelve guidelines, of which 10 were economic evaluations, explicitly considered modeling evidence in their recommendations.

**Discussion**
Models most commonly developed specifically for guidelines were for economic evaluations; the NICE methodology guidelines are most commonly applied to assess model quality. None of the guidelines explicitly evaluated the certainty of this evidence for any outcome.

**Implications for guideline developers/users**
Quality of evidence emerging from modeling should be considered; guidance to facilitate rating of certainty of evidence from modeling studies is urgently required.

## Oral Abstract Presentations

### (OR 07) Intellectual Property Considerations During the Development of Clinical Decision Support from Guidelines

First Author: Jeremy Michel – Clinical Informaticist, ECRI Institute and The Children's Hospital of Philadelphia
Second Author: Sarah Cunningham
Third Author: J. Jane S. Jue – Medical Director, National Guideline Clearinghouse and National Quality Measures Clearinghouse, ECRI Institute
Fourth Author: Vivian Coates, MBA – ECRI Institute

**Background**
Clinical Practice Guidelines (CPG) may be developed by individual and/or corporate authors and published by journals and/or medical societies. Each of these can assert intellectual property (IP) rights. Restrictions may include prohibitions on distribution, alteration, and/or creation of derivative works. Understanding IP restrictions is important for clinical decision support (CDS) developers using CPGs.

**Objectives**
Characterize the process used to detect and manage guideline IP considerations during CDS development, highlighting challenges and successes.

**Methods**
We reviewed 4 guidelines during the early stages of a CDS development project. We scanned each CPG for restrictions within the narrative text and on the publishing journal's and guideline developer organization's website. We evaluated IP considerations to understand potential impacts on CDS development.

**Results**
The narrative text of one guideline described use restrictions. We identified IP issues for a second CPG on the publisher's website. We identified no IP issues surrounding the third CPG. Communication with guideline developers/publishers resulted in agreement of our use of their guidelines. The final guideline was federally funded and due to this circumstance had no IP restrictions for our project.

**Discussion**
The location of information about a guideline's copyright is variable. Each guideline had distinct IP considerations, and not all had use restrictions. Communication with the guideline developers/publishers was necessary, resulted in permission to use guidelines, and did not result in substantial project delay.

**Implications for guideline developers/users**
CDS developers should be aware of the IP restrictions placed on guidelines by authors, publishers, and funding organizations. CDS developers can use these methods to locate and manage IP restrictions.

## Oral Abstract Presentations

### (OR 08) Factors Affecting Cardiology Guidelines' Implementation in 56 Countries in Europe and the Mediterranean Basin

First Author: Suzanne Murray – AXDEV group
Second Author: Peter Kearney – Cork University Hospital
Third Author: Panos E. Vardas – Heraklion University Hospital
Fourth Author: José Luis Zamorano – University Hospital Ramon y Cajal
Fifth Author: Lino Gonçalves – University Hospitals of Coimbra
Presenting Author;Co-Author: Céline Carrera – European Society of Cardiology
Seventh Author: Patrice Lazure – AXDEV group
Eighth Author: Alec Vahanian – Bichat-Claude Bernard Hospital
Ninth Author: Fausto Pinto – University of Lisbon

**Background**
Medical Specialty Societies are committed to providing relevant, up-to-date and evidence-based guidelines to support clinical decision-making of their professionals.

**Objectives**
This study was mandated by the European Society of Cardiology (ESC) with the aim to better understand the gaps, barriers, and perceived and unperceived needs of cardiologists in relation to multiple aspects of the Specialty Society's offerings, including the guidelines.

**Methods**
A mixed-methods research approach combining qualitative and quantitative data was used. Interviews (n=74) and surveys (n=866) were administrated to ESC cardiologist members in 56 countries across Europe and the Mediterranean basin.

**Results**
ESC Guidelines were reported to be used by 81% of participants across targeted countries. However, implementation of the guidelines in clinical decision-making posed some challenges in practice. A lack of adaptation of guidelines to national or local contexts was reported by 56% of the respondents, and difficulties in dissemination and translation of activities by 47% of the respondents. Pocket versions of guidelines, memory cards and online tools were mentioned by participants to facilitate use of the guidelines in practice.

**Discussion**
Collaboration with National Specialty Societies is needed to develop country-specific adaptation of European guidelines. Resources needed to adapt guidelines, or develop contextually relevant tools, may not always be available locally. The adoption of guidelines could be optimised through translation to practice activities that are interactive and case-based.

**Implications for guideline developers/users**
Findings from this study could contribute to the development of evidence-based and needs-driven guidelines and contribute to a wider adoption of these guidelines into practice.

## Oral Abstract Presentations

### (OR 09) Performance Based Financing and Clinical Practice Guidelines in Primary Health Care in Cameroon

First Author: Patrick Okwen Mbah, MD – Scientific Committee, Centre For Development of Best Practices in Health

**Background**
Performance based financing (PBF) is a supply-side health financing approach whereby healthcare services performance are measured and purchased by a performance purchasing agency. The approach is widely used in Africa and is increasingly popular among ministries of health and development agencies. However, performance measures within PBF is challenged by lack of evidence based clinical practice guidelines (CPGs).

**Objectives**
Evaluate the effect of PBF on adherence to CPGs in the North West Region (NWR) of Cameroon using secondary data.

**Methods**
We accessed data from http://www.dev.bluesquare.org/cameroun_demo/data/showzone/2/1.html for four health districts in the NWR. Quality of care was evaluated as per degree of treatment according to guidelines. We assumed that because PBF pays for cases treated according to guidelines, this will improve quality of care. We therefore evaluated the quality scores growth over 24 months between 2012 and 2013.

**Results**
A total of 445,788 patients were consulted, including 17,832 children under 5 years, 80,242 children between 1 and 5 years; 102,531 women and 22,289 deliveries. Regionally PBF enhanced adherence to guidelines by 12.6% with most increased seen at district hospitals (14%) and least at medicalised health centres (11%). Private clinics showed no change in adherence to guidelines.

**Discussion**
These results could only be estimated for 3 out of 13 indicators which have CPGs, (malaria, TB and HIV/AIDS). Other performance measures indicators do not have guidelines so estimating the quality of care provided is limited.

**Implications for guideline developers/users**
It is important to challenge healthcare stakeholders to develop guidelines at all levels of care from prevention, diagnostics and treatment for LMIC.

## Oral Abstract Presentations

### (OR 10) Development of Guideline-Based Clinical Performance Measures for Management of Hip Fractures in the Elderly

First Author: Jacqueline J. Ryan, MPA – Manager, Performance Measures, American Academy of Orthopaedic Surgeons

**Background**
Rewarding performance in the U.S. healthcare system is gaining momentum as a way to improve quality and value of care. Evidence-based performance measurement is an important component of quality improvement efforts. Unfortunately, there is limited, vague information on the methods for developing guideline based clinical performance measures.

**Objectives**
To present a comparison of the similarities and differences between the AAOS performance measure development process for the Management of Hip Fractures in the Elderly and the G-I-N reporting standards for guideline-based performance measures.

**Methods**
Presentation of a case study on the AAOS development of a set of clinical performance measures based on the recently released AAOS Evidence-Based Clinical Practice Guideline (CPG) on Management of Hip Fractures in the Elderly. The AAOS measure development process will be compared and contrasted to the G-I-N reporting standards for guideline based performance measures.

**Results**
This presentation will highlight best practices and lessons learned from developing the set of guideline based clinical performance measures.

**Discussion**
AAOS strives to develop clinical performance measures of the highest caliber that will drive healthcare quality improvement. To do so AAOS first seeks out strong evidence to support the value of the measures and constructs the measures in a sound manner based on the National Quality Forum (NQF) measure development criteria.

**Implications for guideline developers/users**
Measure developers can apply lessons learned from this case study to assist their organization in utilizing CPGs to develop clinical performance measures.

## Oral Abstract Presentations

### (OR 11) What Happens When the Evidence Conflicts with the Interests of Industry? A Case Example and Lessons Learned

First Author: Deborah Cummins – Director, Research, Quality and Scientific Affairs, American Academy of Orthopaedic Surgeons (AAOS)

**Background**
In 2013, a recommendation not to use hyaluronic acid injections to treat osteoarthritis of the knee was published. This recommendation was supported by strong evidence that demonstrated no clinical difference between treatment and placebo. Five pharmaceutical companies banded together to form the Hyaluronic Acid Viscosupplementation Coalition (HAVC) to protest this guideline and to protect the multi-billion dollar sales generated by this treatment.

**Objectives**
To share the lessons learned when evidence-based recommendations conflict with business interests.

**Methods**
Documentation of the communications, strategies and tactics employed by industry to discredit the guideline recommendation as well as the responses of the guideline team will be shared.

**Results**
The recommendation was not popular with industry or some members of the professional medical association that developed the guideline who wanted to continue providing the treatment. New industry-funded reviews supporting the treatment clouded public perception when other associations cited them in publishing consensus statements, contradicting the evidence-based guideline. At this point, a reasonable healthcare professional could be confused regarding which guideline or statement to trust.

**Discussion**
Implementation and dissemination strategies available to the academy cannot realistically compete with the deep pockets of industry. An assessment of the pros and cons of past actions and inactions will be explored.

**Implications for guideline developers/users**
The contentious public conversation that began in 2013 continues through 2016 and serves as a reminder of the importance of rigorous methodology that can stand up to scrutiny and political and financial pressure. Additionally, while associations cannot compete with industry from a funding or marketing perspective, education and leadership can influence adoption.

## Oral Abstract Presentations

### (OR 12) Tailoring Guideline Recommendations into a Format for the Public

First Author: Nancy Santesso – Assistant Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University
Second Author: Angela Barbara
Third Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University

**Background**
The Optimal Aging Portal is a web resource providing high quality information about healthy aging to the public. Information from clinical practice guidelines is not yet available, but since guidelines are typically written for health care professionals the information will likely need to be tailored.

**Objectives**
To develop a viable format to disseminate guideline recommendations through the internet to the public.

**Methods**
We conducted 4 focus groups of 5-8 people, and based on the results developed 3 formats for user testing with 14 people. We used a directed content analysis to identify themes and used an iterative process after every 2-3 interviews to revise the formats and retest.

**Results**
We identified themes related to the uses of recommendations, the strength of recommendations, and personalised information. Most people were interested in recommendations that they could implement on their own (e.g., for physical activity or vitamins) and wanted to know if the recommendations applied to them. When recommendations were conditional or weak, they wanted more information about why and what to consider. When provided as a web resource, people often identified challenges sifting through multiple 'hits' when searching and sifting through paragraphs of text.

**Discussion**
We created a format for the public that is brief and communicates individual recommendations from a guideline. Information about who the recommendation applies to, and factors to consider are clearly provided, along with links to additional information.

**Implications for guideline developers/users**
The format we developed offers a tool to disseminate recommendations from clinical practice guidelines to the public.

## Oral Abstract Presentations

### (OR 13) The AGREE-HS: A Tool to Inform the Development, Reporting and Evaluation of Health Systems Guidance

First Author: Denis E. Ako-Arrey – Postdoctoral Fellow, McMaster University
Second Author: Melissa C. Brouwers – Professor, McMaster University
Third Author: John N. Lavis – Professor, McMaster University
Fourth Author: Ivan D. Florez – PhD Student, McMaster University
Fifth Author: Karen D. Spithoff – Research Program Manager, McMaster University
Sixth Author: Marija Vukmirovic – Research Assistant, McMaster University

**Background**
While numerous tools are available to assist with the development, reporting and evaluation of clinical practice guidelines, few resources exist to advise the developers and users of guidance that addresses health systems issues (e.g., health care delivery, governance and financial arrangements).

**Objectives**
To develop and test a tool to inform the development, reporting and evaluation of health systems guidance (HSG).

**Methods**
A literature review and critical interpretive synthesis were conducted to identify and categorize factors related to HSG quality. International health systems and policy experts and researchers completed a survey to assess the importance of these factors in developing, reporting and evaluating HSG. Survey results then informed the creation of a draft HSG appraisal tool called the AGREE-Health Systems (AGREE-HS). The draft tool underwent international external review to determine its validity and usability.

**Results**
Thirty factors related to HSG quality were identified. Forty-one people completed the survey and rated all factors favorably. Twenty-six people applied the draft AGREE-HS, comprising 32 items within four domains, to a HSG document and completed a usability survey. Results were used to refine the tool.

**Discussion**
Results indicated that the AGREE-HS is a useful tool to evaluate the quality of HSG. Further testing of the tool's validity and reliability, and development of a user guide to complement the tool, is ongoing.

**Implications for guideline developers/users**
HSG developers can use the AGREE-HS to create high quality guidance to address health systems challenges. Policy-makers and health systems administrators can use the AGREE-HS to facilitate better decision-making and implementation of health system recommendations.

## Oral Abstract Presentations

### (OR 14) Updating the Botswana Primary Care Guidelines: Lessons Learned from Resource Limited Settings

First Author: Billy Morara. Tsima – Lecturer, Family Medicine, University of Botswana
Second Author: Neo Tapela
Third Author: Oathokwa Nkomazana

**Background**
The Botswana Primary Care Guidelines, initially piloted in 2013, were aimed at transforming primary care to standardize and improve quality of care. New evidence impacting clinical practice and public health policy momentum to integrate non-communicable diseases at primary care level necessitated the review of this integrated guideline in 2015/2016.

**Objectives**
To describe the processes followed and lessons learned in the first revision of Primary Care Guidelines in a middle income African country.

**Methods**
Following pilot projects at two different sites in Botswana, stakeholders engaged in a 9-month review process. Relevant content experts reviewed disease-specific sections of the guidelines. The review team, and policy makers subsequently convened to a consensus-building meeting.

**Results**
Updates included: aligning sexually transmitted infections management with recent WHO recommendations; target blood pressure goal in high risk groups increase; lifting of restrictions on the use of Metformin in pregnancy and Efavirenz use in first trimester of pregnancy.

**Discussion**
In the two-year period in which the Botswana Primary Care Guidelines were piloted, practice recommendations changed for common diseases seen in the primary care setting. The revision process was relatively long thus widening the gap between the release of the guidelines and implementation of updated recommendations. Delays were due in part to resource limitations and challenges in coordinating the necessarily broad stakeholders relevant to the process.

**Implications for guideline developers/users**
Guidelines revision is necessary in order to maintain currency and keep up with evidence-based recommendations. Guideline developers should consider preemptively set time intervals for review based on scope of guidelines and availability of resources.

## Oral Abstract Presentations

### (OR 15) Relation Between Research Prioritization by Health Funds and Knowledge Gaps in Guidelines

First Author: Dieuwke Leereveld
First Author: Marleen Ploegmakers – Senior advisor, Knowledge Institute of Medical Specialists
Third Author: Tim Van Liem Chau
Fourth Author: Teus van Barneveld – Managing Director, Kennisinstituut van Medisch Specialisten / Knowledge Institute of Medical Specialists

**Background**
Key questions in guidelines are prioritized by patients and professionals as 'relevant' questions for patient care. For many recommendations we have low levels of evidence. In an ideal world we expect health funds to subsidise research that will solve the knowledge gaps in guidelines.

**Objectives**
1. To match research subsidised by health funds to key questions in guidelines;
2. Discuss possible room for improvement with stakeholders.

**Methods**
We retrieved lists with subsidised research from the Lung Foundation Netherlands and the Brain Foundation Netherlands from 2011 to 2015. Based on the summary we established whether the study could be matched with a guideline topic and if applicable: a key question. If completed, we checked whether the study was in the reference list of the guideline. Semi-structured interviews were conducted with the health funds and professionals to discuss the results.

**Results**
For the Lung Foundation 3 of 50 (6%) and for the Brain Foundation 28 of 119 (23%) studies were matched to a key question. None of the studies were found in reference lists of the guidelines. For both health funds the main reason for a non-match was that it was fundamental research, respectively 83% and 76%. From the interviews it became clear that stakeholders feel that there is a misbalance between fundamental and clinical evaluation research. Professionals and health funds are willing to work together in prioritizing clinical (evaluation) research.

**Discussion**
Health funds and professionals working together on research prioritization increases high level of evidence-recommendations.

**Implications for guideline developers/users**
It is important to prioritize knowledge gaps within guideline development.

## Oral Abstract Presentations

### (OR 16) Mammography Policy: Ethics & Informed Consent

First Author: James W. Murrett – Medical Student, Perelman School of Medicine at University of Pennsylvania
Second Author: Harald Schmidt

**Background**
As the understanding of preventive screening programs develops, experts are continuing to debate the best approach to national breast cancer screening programs.

**Objectives**
Evaluate the current ethics of invitation-based systems in relationship with informed consent.

**Methods**
Authors reviewed current OECD and WHO policy as well as conducted a literature search on mammography screening programs.

**Results**
The most common system in OECD countries is a nationwide population-based mammography screening program with patients invited directly to screening. While invitation-based systems have been shown to increase uptake and reduce socioeconomic disparities in screening rates, they raise questions on what is the influence of paternalism on informed consent.

**Discussion**
Instead of inviting patients directly to screening, authors recommend a new system of invite to counsel where national invitations bring patients to meet with their primary care physicians to discuss benefits, harms, and risks of mammography screening. This system would help patients make the best informed-decision by bringing them together with an ally who best understands current evidence as well as the patient's preferences on risk and preventative medicine.

**Implications for guideline developers/users**
Invite to counsel would easily integrate into invitation-based programs, offer easily-tracked metrics on screening, and best ensure informed consent for patients.

## Oral Abstract Presentations

### (OR 17) De-adoption of Lower Value Care in Clinical Guidelines

First Author: Simone van. Dulmen – researcher
Second Author: Joost Wammes
Third Author: Eva Verkerk
Fourth Author: Tijn Kool

**Background**
The term lower value services concerns healthcare that is of little or no value to the patient and consequently should not be provided routinely, or not be provided at all. De-adoption of lower value care may occur through explicit recommendations in clinical guidelines.

**Objectives**
This study aimed to generate a comprehensive list of lower value services for the Netherlands by type of care associated medical condition based on clinical guidelines.

**Methods**
Dutch clinical guidelines (published from 2010-2015) were searched for do-not-do recommendations. The recommendations identified were categorized by type of care (diagnostics, treatment with and without drugs), type of lower value service and the ICD-10 codes.

**Results**
A total of 1366 recommendations was found in the 193 Dutch guidelines (mean 7,1); 30% covered diagnostics, 29% related to surgical and medical treatment without drugs primarily and 39% to drug treatment. The majority (77%) was on care that should not be offered at all, whereas the other 23% recommended on care that should not be offered routinely.

**Discussion**
Dutch guidelines contain many specific recommendations to ensure that lower value care is not offered, or only applied to specific subpopulations or under limiting conditions. It is unknown to what extend lower value services are actually provided

**Implications for guideline developers/users**
The development of a comprehensive list of do-not-do recommendations and prioritization is only the first of several necessary steps in actually reducing lower value care. The next step in reducing lower value services is the implementation of guidelines with an explicit focus on de-adoption of the do-not-do recommendations.

## Oral Abstract Presentations

### (OR 18) Implementation of a Quality Management System for Clinical Practice Guidelines in Germany

First Author: Cathleen Muche-Borowski – AWMF-Institute for Medical Knowledge Management
Second Author: Monika Nothacker – Deputy Head, AWMF-Institute for Medical Knowledge Management
Third Author: Ina Kopp, Prof, Dr – AWMF-Institute for Medical Knowledge Management

**Background**
To develop high quality, trustworthy guidelines according to international methodological standards resources, structures and processes are needed. In Germany, the scientific medical societies provide financial and personal resources as well as broad clinical and scientific expertise.

**Objectives**
The Association of the Scientific Medical Societies (AWMF) in Germany supports the medical societies with established structures and processes over two decades.

**Methods**
Using the method of Deming (Plan-Do –Check –Act) quality assurance for the medical societies and the AWMF guideline register was stepwise introduced. This comprised the constitution of a standing interdisciplinary guideline committee, the buildup of a webbased guideline register, nomination of guideline-delegates in medical societies, annual guideline conferences, trainings for guideline authors and guideline advisers. A three-step guideline classification was introduced. After a period of self-assessment, guidelines underlie independent review since 2009. Besides setting rules, the guideline committee wrote a guidance.

**Results**
Seven rules assure the quality of the guidelines in AWMF guideline register: mandatory application, classification after defined requirements for class 1 to 3 according to evidence and consensus base, management of conflict of interests, requirements for publication and up-to-dateness. Over 170 medical societies develop guidelines under the AWMF-roof. In the past 15 years shows a trend towards an increase of evidence- and consensuses based guidelines: from 17 (2002) to 139 (2016).

**Discussion**
Through a voluntary quality management a strong engagement of medical societies for guideline development maintained and a high quality register could be built up.

**Implications for guideline developers/users**
Building and organization a Quality Management System for Clinical Practice Guidelines with the Scientific Medical Societies

## Oral Abstract Presentations

### (OR 19) Practical Guidance for Using Existing Systematic Reviews in Developing Clinical Practice Guidelines

First Author: Stacey Uhl, MSS – Senior Research Associate, Center for Evidence Reviews; American College of Physicians
Second Author: Fang Sun, MD, PhD – Director, Center for Evidence Reviews, American College of Physicians
Third Author: Farah Sultan, MD – Research Associate, Center for Evidence Reviews, American College of Physicians
Fourth Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians

**Background**
Recently, there has been growing interest in using existing systematic reviews (SRs) as evidence in new SRs or in place of conducting de-novo reviews to inform clinical practice guidelines. Use of existing reviews can reduce the time and resources required to produce de-novo reviews, and prevent duplicative efforts. While some tools (e.g., AMSTAR, ROBIS) have been developed for assessing the risk of bias or the quality of existing SRs, little practical guidance is available for guideline developers to integrate existing SRs into new evidence reviews or use them in place of de-novo reviews.

**Objectives**
To address this gap, the American College of Physician's Center for Evidence Reviews proposes an in-depth framework for using existing SRs that expands on available tools and guidance.

**Methods**
Based on the experience of our group, we provide a framework that details the methods we use to incorporate the findings of existing reviews into our new evidence reviews.

**Results**
The framework lays out a step-by-step decision process to assess the relevance of existing reviews, their methodological quality, the usability of the reported data, and the adaptability of the findings (including the quality-of-evidence grades).

**Discussion**
Our work provides practical and transparent guidance to reviewers and guideline developers on how to use existing reviews to address their evidence needs.

**Implications for guideline developers/users**
The ability to adapt or adopt existing SRs can save guideline developers time and resources.

## Oral Abstract Presentations

### (OR 20) Rating Recommendations from Two or More Guidelines

First Author: Brian S. Alper – DynaMed Founder; VP Innovations + EBM Development, EBSCO Health
Second Author: Ilkka Kunnamo – Editor-in-Chief, EBMeDS, Duodecim Medical Publications Ltd.
Third Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians
Fourth Author: Amy Price – ThinkWell Trustee; Director, PLOT-IT Public Led Online Trials Infrastructure and Tools, Evidence Based Health Care, University of Oxford
Fifth Author: Per Olav Vandvik, MD, PhD – Associate Professor, Faculty of Medicine, University of Oslo
Sixth Author: Peter Oettgen – Editor-in-Chief, DynaMed

**Background**
Guideline developers and users have systems for rating recommendations within a guideline, but there is no system for rapid recognition and conveyance when multiple guidelines covering the same concept come to similar or dissimilar recommendations.

**Objectives**
A rating system for recommendations to rapidly convey where there is universal agreement and where there are disagreements across guidelines.

**Methods**
We reflected on experiences in developing, rating and using guidelines and recommendations; included relevant concepts from GRADE, IOM and GIN standards; reviewed iteratively for overall simplification and reached consensus on a rating system for the collection of recommendations for a specific concept.

**Results**
When multiple guidelines are available for a recommendation:

Alpha ratings (Consistent Strong Recommendations) = all guidelines provide Strong recommendations for the intervention (or highest degree of certainty that desirable consequences outweigh undesirable consequences), there is a qualified rationale (systematic review, non-conflicted multidisciplinary expertise, explicit values and preferences), and no dissenting opinion with a qualified rationale.

Beta ratings (Consistent Suggestions) = all guidelines provide recommendations for the intervention, but all guidelines do not reach a Strong recommendation.

Delta ratings (Inconsistent or Insufficient Guidance) = at least one guideline recommends for and at least one guideline recommends against an intervention, or at least one guideline declares insufficient evidence to recommend for or against the intervention.

**Discussion**
This system provides easy recognition whether guidelines agree or disagree. Examples can be seen at www.healthcaregps.org

**Implications for guideline developers/users**
Agreement across guidelines strengthens the recommendations. Disagreement highlights areas where greater analysis or explanation is warranted.

## Oral Abstract Presentations

### (OR 21) Rationale and Process for Prioritisation of National Clinical Guidelines

First Author: Rosarie Lynch – Clinical Effectiveness Officer, Department of Health, Ireland
Second Author: Kathleen Mac Lellan – Director of Clinical Effectiveness and Patient Safety, Department of Health, Ireland
Third Author: Mairin Ryan – Director of Health Technology Assessment; Acting Deputy Chief Executive Officer, Health Information and Quality Authority, Ireland
Fourth Author: Sarah Condell – Clinical Effectiveness Officer, Department of Health, Ireland
Fifth Author: Michelle O'Neill – Senior Health Economist, Health Information and Quality Authority, Ireland

**Background**
In Ireland, National Clinical Guidelines (NCGs) are prioritised and published by the Department of Health in an endorsement process overseen by the National Clinical Effectiveness Committee (NCEC). This aims to optimise patient care, promote public health and align guidelines with policy objectives and performance monitoring while considering available resources. It focuses on guidelines with specific potential to improve healthcare value in the Irish context. To inform the prioritisation process we reviewed best practice internationally and identified seven criteria. This poster explores our experiences using the developed prioritisation process at the earlier stage of guideline proposal, rather than after development is complete.

**Objectives**
The objectives were:
• Design a proposal template, using the identified criteria for prioritisation,
• Test usability of proposal template

**Methods**
The developed proposal template underwent three PDSA cycles:
1. Initial drafting using prioritisation criteria
2. Internal team feedback from experience of prioritisation of full guidelines
3. User feedback from GDGs and prioritisation teams

**Results**
Eight full guidelines and three proposals have been prioritised to date. The poster will show the results of the three PDSA cycles conducted on the
proposal template, including survey results from GDG and prioritisation team members.

**Discussion**
Good design of templates should use the considered views of both applicants and prioritisation teams.

**Implications for guideline developers/users**
Prioritisation criteria and a formal process ensure a transparent and considered approach.
A guideline proposal template can be successfully used to prioritise topics for National Clinical Guidelines before they are developed.

## Oral Abstract Presentations

### (OR 22) Patient-Oriented Tools That Could Be Packaged with Guidelines to Promote Self-management: A Meta-Review

First Author: Anna R. Gagliardi – Scientist / Associate Professor, Toronto General Hospital Research Institute / University of Toronto
Second Author: Robin Vernooij
Third Author: Melina Willson

**Background**
Self-management is important for patients with chronic conditions. Patients perceive guidelines as sources of self-management support. However few guidelines provide such resources.

**Objectives**
To describe components of self-management that could be packaged as resources in guidelines.

**Methods**
We reviewed systematic reviews that evaluated self-management interventions. MEDLINE, EMBASE and the Cochrane Library were searched from 2005 to 2014 for English language systematic reviews. Data were extracted on study characteristics, intervention and outcomes. Self-management components were characterized by domain (inform, activate and collaborate). Findings were reported with summary statistics. Methodological quality was assessed with AMSTAR.

**Results**
Seventy-seven reviews were included (14 low, 44 moderate, 18 high risk of bias). Fifty-four were single (38 educational, 16 self-directed), and 21 were multifaceted components. Lifestyle advice (72%), psychological strategies (69%) and information about the condition (49%) were the most frequently used components. Among reviews in which self-management had a positive impact, 83% of interventions involved activation alone, 94% in combination with information, and 95% in combination with information and collaboration. Activation resources included reminders, diaries, action plans, tools to monitor health status, and psychological strategies for problem-solving.

**Discussion**
Single resources that provided information and/or prompted activation were associated with positive self-management outcomes. Further research is needed to optimize the design of self-management resources that are included in or with guidelines.

**Implications for guideline developers/users**
This study revealed numerous opportunities for enhancing guidelines with resources for both patients and providers to support self-management. Training may be needed to prepare patients and providers to use such resources.

## Oral Abstract Presentations

### (OR 23) Multivariate Risk Assessment and Risk Stratification in the U.S. Preventive Services Task Force (USPSTF) Portfolio

First Author: Jennifer S. Lin – Director, Kaiser Permanente Research Affiliates Evidence-Based Practice Center
Second Author: Corinne V. Evans – Research Associate, Kaiser Permanente Research Affiliates Evidence-Based Practice Center
Third Author: Brittany U. Burda – Research Associate, Kaiser Permanente Research Affiliates Evidence-based Practice Center
Fourth Author: Evelyn P. Whitlock – Chief Science Officer, Patient-Centered Outcomes Research Institute

**Background**
Given the impact of USPSTF recommendations on preventive services in the U.S., this guideline body has dramatic influence on the implementation of individualized guidelines in primary care. Multivariate risk assessment and risk stratification are methods by which recommendations can be tailored to meet the needs of diverse populations.

**Objectives**
To understand how the USPSTF incorporates risk assessment and risk stratification into recommendations.

**Methods**
Audit the USPSTF portfolio to systematically identify the extent of risk stratification and use of risk assessment.

**Results**
While few recommendations explicitly suggest multivariate risk assessment, the use of risk-stratified recommendations is common (currently and historically), occurring in about 40% of recommendations. In cases where risk assessment tools are explicitly mentioned, these tools have been externally validated in U.S. populations. Recommendation statements almost always include information on risk, though there is wide variability in the specificity of risk definitions. Several strategies have been used to personalize Grade C recommendations to selectively provide a service, such as risk tools, and invoking single or multiple risk factors. In rare cases, decision modeling has been used as a complement to systematic reviews to target recommendations.

**Discussion**
The USPSTF has a long history of using risk stratification to target recommendations. These findings, in addition to concurrent work on subpopulation considerations, can be used to further articulate consistent principles for when risk assessment and risk stratification should be used.

**Implications for guideline developers/users**
The development of a consistent approach for considering risk can enhance transparency of high impact clinical practice guidelines.

## Oral Abstract Presentations

### (OR 24) Supporting Shared Decision Making in Clinical Practice: Identifying the Evidence Base for Patient Decision Aids

First Author: Laura Norburn
Second Author: Victoria Thomas – Head of Public Involvement, National Institute for Health and Care Excellence (NICE)
Third Author: Jane Cowl
Fourth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Shared decision making (SDM) promotes a culture where clinicians and patients work together to decide on the treatment that delivers the best outcomes for the patient, based on their personal values and preferences. This process can be supported by decision support tools (or patient decision aids - PDAs) which present information on the risks and benefits of treatment options clearly and comparably.

**Objectives**
To develop methods and processes to identify preference-sensitive decision points within a care pathway and highlight the evidence relating to them, as part of clinical guideline development.

**Methods**
We reviewed NICE's guideline development methodologies and identified points in the process where considering preference-sensitive decision points would be feasible.

**Results**
The guideline development manual was amended to include:
• Considering preference-sensitive decision points during guideline scoping and development
• Presenting the evidence around preference-sensitive decision points clearly in the guidance to support PDA development by external organisations.
We developed a framework for guideline developers to use to ensure that evidence is presented clearly and consistently.

**Discussion**
This work means NICE can take a greater role in promoting SDM by explicitly highlighting preference-sensitive decision points and surfacing the evidence needed for external organisations to develop PDAs. This will ensure that PDAs are based on the best available evidence and are aligned with NICE guidance.

**Implications for guideline developers/users**
The outcomes of the work mean that guideline users can find information about preference-sensitive decisions more easily, and see the evidence that relates to the available treatment options. It also provides the evidence-base for potential PDA development.

## Oral Abstract Presentations

### (OR 25) WikiRecs: Rapid Creation and Dissemination of Evidence Summaries and Trustworthy Recommendations to Point of Care

First Author: Per Olav Vandvik, MD, PhD – Associate Professor, Faculty of Medicine, University of Oslo
Second Author: Reed Siemienuk
Third Author: Thomas Agoritsas
Third Author: Klara Brunnhuber
Fourth Author: Helen McDonald
Sixth Author: Gordon Guyatt – McMaster University
Seventh Author: Linn Brandt – MD, internal Medicine, Internal medical dept., Gjøvik Hospital, Inland HF, Norway, and HELSAM, Medical faculty, University of Oslo, Norway

**Background**
Dissemination of best current evidence to clinicians and patients at the point of care is often ineffective, with guideline organisations facing major barriers. During the hiatus between publication of practice-changing evidence and dissemination of trustworthy guidelines, patients suffer from suboptimal care.

**Objectives**
Faced with potentially practice-changing evidence, we aim to rapidly create and disseminate trustworthy recommendations, evidence summaries and decison aids in: 1) a novel and user-friendly single page synopsis format published in the BMJ (WikiRecs), 2) digitally structured multi-layered presentation formats available online "anywhere, anytime on all devices" (www.magicapp.org ), and 3) other dissemination channels (e.g. BMJ Best Practice).

**Methods**
A collaborative network of clinicians, researchers and experts in systematic review and guideline development will together with the BMJ be responsible for the creation and publication of WikiRecs. The process starts - if needed - with the rapid creation of a review (within 60 days) followed by creation of WikiRecs that will be submitted together with the review within the next 15 days and published in the journal through an expedited peer-review process within 90 days.

**Results**
We will present 3 pilot WikiRecs (e.g. steroids in pneumonia) to demonstrate feasibility of our process and the proposed publication formats.

**Discussion**
WikiRecs represents a disruptive innovation in guideline development and publication that provide new opportunities but also challenges to be explored.

**Implications for guideline developers/users**
New and more effective ways of disseminating evidence to point of care through trustworthy recommendations, evidence summaries and decision aids available in a high impact medical journal and magicapp could largely impact future strategies.

## Oral Abstract Presentations

### (OR 26) Validity and Reliability Testing of the AGREE-REX, a Tool to Evaluate the Implementability of Recommendations

First Author: Melissa C. Brouwers – Professor, McMaster University
Second Author: Kate Kerkvliet – Research Assistant, McMaster University
Third Author: Karen D. Spithoff – Research Program Manager, McMaster University

**Background**
While resources exist to improve overall methodological quality of practice guidelines (PGs), few resources are available to optimize clinical credibility and implementability of PG recommendations. The AGREE research team developed the AGREE-REX tool to address this gap.

**Objectives**
To test the validity and reliability of the AGREE-REX, a tool to evaluate PG clinical credibility and implementability.

**Methods**
The AGREE-REX was developed based on a literature review and feedback from the international PG community. Fifty PG developers and users were invited to complete a survey about the content and structure of the AGREE-REX. In addition, a large sample of PG developers and users will be invited to apply the AGREE-REX to a PG and complete a usability survey.

**Results**
Fifteen individuals completed the initial survey and provided feedback on the draft AGREE-REX. Participants agreed they would use the AGREE-REX to evaluate PGs (60%), determine the suitability of PGs for use in their own context (73%), and advise the development and reporting of PGs (60%). Reliability and usability testing is ongoing and results are expected in summer 2016.

**Discussion**
Results received to date from the AGREE-REX external review and validation process indicate that PG developers and users find the tool to be useful for assessing factors related to PG clinical applicability and implementability.

**Implications for guideline developers/users**
The AGREE-REX will assist PG developers to create clinically credible recommendations and assist PG users to assess and select PGs with trustworthy recommendations that are appropriate for implementation in their setting.

## Oral Abstract Presentations

### (OR 27) The Current Status of Patient Guidelines: A Review

First Author: Xiaoqin Wang
Second Author: Shujun Xiao
Third Author: Dongke Wang
Fourth Author: Xueqin Zhang
Fifth Author: Lanlan Guo
Sixth Author: Xiaoli Liu
Seventh Author: Zheng Liu
Eighth Author: Lurong Zhang
Tenth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Tenth Author: Kehu Yang

**Background**
Compared with professional guideline, patient guideline is easier for laypeople to understand and accept thus improving health care.

**Objectives**
To survey the current status of patient guidelines.

**Methods**
We searched PubMed and Google with “patient guide” and “patient guideline”. Institutions who published patient guidelines, including NCCN, ACP, ESMO and ACS, was manually retrieved. Two researchers independently conducted literature screening and data abstraction. We used frequency and percentage to deal with the results with office excel 2013.

**Results**
133 patient guidelines were included, mainly from BCMA(28, 21%), TES(26, 20%), ACP(22, 17%), ESMO(17, 13%), NCCN(16, 12%), ACS(5, 4%). In general, the number of patient guidelines increased by year, and the earliest one was made in 1991. Five terms mostly used were: Patient Guide(56), Guidelines for Patients(17), Books for Patients(17), Patient Guidelines(16), Patient Books(16), but none gave a clearly definition. For diseases of interest: oncology(41,31%), digestive system diseases(17,13%), endocrine system diseases(16,12%), reproductive system diseases(15,11%) and cardiovascular system diseases(10,8%). For structure, the length of guidelines varied a lot with average 23 (1-118) pages. And contents were presented as: statement texts combined with abundant pictures(16,12%), Q&A texts combined with abundant pictures(63,49%), statement texts(7,5%) and Q&A texts(46,35%). For recommendations, 71(53%) patient guidelines provided recommendations and 62(47%) gave none.

**Discussion**
An increasingly number of patient guidelines were published, of which the structure and content varied a lot among different institutions.

**Implications for guideline developers/users**
Various terms and great differences among different patient guidelines will impede the effective use. And a clear definition and some regulations need to be developed in the next step.

## Oral Abstract Presentations

### (OR 28) Developing and Testing the National Guideline Clearinghouse Extent Adherence to Trustworthy Standards Instrument

First Author: J. Jane S. Jue – Medical Director, National Guideline Clearinghouse and National Quality Measures Clearinghouse, ECRI Institute
Second Author: Sarah Cunningham
Third Author: Vivian Coates, MBA – ECRI Institute
Fourth Author: Richard Shiffman – Associate Director, Yale Center for Medical Informatics, Yale School of Medicine
Fifth Author: Craig Robbins
Sixth Author: Mary Nix – Acting Director, Divison of Decision Science & Patient Engagement; Center for Evidence and Practice Improvement, Agency for Healthcare Research and Quality
Seventh Author: Kathleen Lohr
Eighth Author: Paul Shekelle, MD, PhD – Greater Los Angeles VA Health Care System

**Background**
In 2011 the Institute of Medicine (IOM) promulgated standards for trustworthy guidelines and recommended that the National Guideline Clearinghouse (NGC) clearly indicate the extent to which guidelines adhere to them.

**Objectives**
To develop and test a concise tool for NGC staff to assess guidelines' adherence to IOM standards.

**Methods**
Using a modified Delphi process, we developed the NGC Extent of Adherence to Trustworthy Standards (NEATS) instrument weighing the IOM standards by priority of initial implementation, difficulty of implementation by developers, and likelihood of documentation. Thirteen experts provided 11 rounds of input and feedback. We evaluated the external validity of the instrument by surveying 13 external stakeholders who tested the NEATS. Three NGC staff reviewers evaluated NEATS reliability in a pilot test with dual review of 21 guidelines.

**Results**
The NEATS instrument contains 15 items aligned to the IOM standards. All items received 80%-100% ratings that they were good measures of the IOM standard. All external stakeholders stated the NEATS was suitable for its intended goal. Internal reliability for the NEATS had an adjusted kappa of 0.84(95% CI 0.76- 0.93).

**Discussion**
The NEATS instrument is a focused tool for NGC staff can use to provide a concise assessment of a guideline's adherence to the IOM standards for trustworthy guidelines. It has good external validity among guideline developers and good internal reliability across NGC staff reviewers.

**Implications for guideline developers/users**
NGC implementation of the NEATS instrument will yield information about a guideline's trustworthiness. Implementing these assessments may drive development and use of guidelines that have greater rigor and transparency.

## Oral Abstract Presentations

### (OR 29) Getting the O in PICO Right for Trustworthy Recommendations

First Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Second Author: Wojtek Wiercioch – McMaster University
Third Author: Jan Brozek – Associate professor, McMaster University, Hamilton, Ontario, Canada
Fourth Author: Nancy Santesso – Assistant Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University

**Background**
Selecting and agreeing on the right number of patient important outcomes to weight health benefits and harms and inform healthcare recommendations has been challenging.

**Objectives**
To develop and describe a new GRADE-based approach to systematically and transparently select outcomes for recommendations.

**Methods**
Using an iterative approach based on prior guideline development efforts and feedback from guideline methodologists, our focus was on ensuring understanding of outcome selection by non-specialized health workers and researchers, and by patients in general. We developed and utilized existing marker states, items from health-related quality of life measurement tools or clinical observations.

**Results**
We selected outcomes for 200 PICO-recommendations in new American Society of Hematology venous thromboembolism guidelines. Brief outcome importance marker states (OIMS) can be used to select outcomes for creating interactive Summary of Findings (SoF) Tables. OIMS should consist of 4 bullet points, with one bullet point for each of the following four domains: symptoms, time horizon, testing and treatment, and consequences. Visual analogue scales can then be used to determine the value of marker states. The latter requires expanding on the OIMS by including up to 10 bullet points in total, with 2 to 4 per domain.

**Discussion**
Using the American Society of Hematology-McMaster partnership for VTE guidelines we developed outcomes for PICO questions and SoF Tables. It requires upfront work but facilitates the process for guideline developers. It is available in GRADE's software GRADEpro.

**Implications for guideline developers/users**
Our work suggests this new approach to identify, describe, limit and weight outcomes in PICO questions and SoF Tables is feasible and transparent.

## Oral Abstract Presentations

### (OR 30) Using Text Mining to Facilitate Study Identification in Public Health Systematic Reviews

First Author: Charlotte Haynes – Senior Technical Analyst, National Institute for Health and Care Excellence
Second Author: Kay Nolan – Associate Director Public Health and Social Care Centre, National Institute for Health and Care Excellence
Third Author: Katy Harrison – Senior Technical Analyst, National Institute for Health and Care Excellence
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Fifth Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Sixth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence
Seventh Author: Georgios Kontonatsios – Research Associate, National Centre for Text Mining, University of Manchester
Eighth Author: Sophia Ananiadou – Director, National Centre for Text Mining, University of Manchester

**Background**
Systematic reviews have become increasingly important in guiding and informing clinical decisions, and in developing clinical and public health guidance. However, manually developing a systematic review is a time-consuming and resource-intensive task. In response, a number of studies investigate the use of text mining methods to automatically prioritise relevant studies for inclusion and identify irrelevant studies for exclusion. Good results are seen in the clinical domain, but the performance of available text mining methods decreases when applied to public health reviews.

**Objectives**
To refine and assess a text mining approach when applied to the screening phase of public health reviews.

**Methods**
A sample of manually screened citations is used by the system to learn to discriminate eligible from ineligible studies. The system then prioritises the citation list so that relevant studies are ranked higher than irrelevant ones. We tested the software on a number of public health reviews. Topics were chosen to test a range of areas and conditions, such as complexity of intervention.

**Results**
The process was evaluated in terms of quantitative outputs – for example, measures of efficiency in sifting time; and qualitative experience – for example, usability and functions of the system.

**Discussion**
The text mining approach provides an efficient way for identifying relevant citations early on in screening, thus minimising screening burden and making efficiencies in the process.

**Implications for guideline developers/users**
Text mining can facilitate the development of efficient and cost effective public health reviews.

## Oral Abstract Presentations

### (OR 31) Judging Financial Conflicts of Interest: What Counts?

First Author: Robert Kunkle – Senior Manager, Practice Guidelines, American Society of Hematology
Second Author: Adam Cuker
Third Author: Julie Panepinto
Fourth Author: Anita Rajasekhar
Fifth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Sixth Author: Robert M. Plovnick – Director of Quality Improvement, American Society of Hematology

**Background**
Many U.S. medical specialty societies have defined "conflict of interest" to mean having a financial interest in any company that markets a product that may be affected by the guidelines. Even using this narrow definition, individuals charged to review disclosures must make difficult judgments about which financial interests count as conflicts.

**Objectives**
Define and pilot general principles for judging if a financial interest is a conflict for participation on a guideline panel.

**Methods**
General principles were developed to guide judgments of a team of 11 reviewers who vetted >100 individuals for 11 guideline panels of the American Society of Hematology in 2015 and 2016. Feedback about the principles was obtained informally.

**Results**
Reviewers reported that the principles helped them to make consistent judgments and articulate clear reasons for exceptions.

**Discussion**
To ensure consistent decisions, we recommend that guideline developers define a priori general principles for judging if a reported financial interest is a conflict. These general principles should address (1) timing of an activity or ownership (e.g., current, past, recent) and timing of payment for the activity, (2) magnitude of the interest, (3) directness of any payment or support, (4) relevance of nonfinancial factors (e.g., for a research interest, the subject or aims of the research or the leadership role of the individual), and (5) impact of the guidelines on the commercial entity.

**Implications for guideline developers/users**
Guideline developers that do not establish general principles a priori may make judgments that are inconsistent, naïve, or opportunistic.

## Oral Abstract Presentations

### (OR 32) Evidence Based Practice Scholars Program

First Author: Nancy H. Allen – Evidence Based Practice Program Manager, Children's Mercy -- Kansas City
Second Author: Jarrod Dusin – Evidence Based Practice Program Manager, Children's Mercy--Kansas City
Third Author: Jeffrey Michael, DO, FAAP – Medical Director of Evidence Based Practice, Children's Mercy--Kansas City
Fourth Author: Jacqueline A. Bartlett, PhD, RN – Director of Evidence Based Practice, Children's Mercy--Kansas City

**Background**
Children's Mercy Hospital has been developing clinical practice guidelines (CPGs), since 2001. At that time, CPG team members were searching for and analyzing the literature. Acknowledging the time commitment, and the complexity of identifying, reviewing, analyzing literature we developed an EBP Scholars Program.

**Objectives**
Our objective was to standardize literature analysis.

**Methods**
We select EBP Scholars, who are nursing and Allied Health professionals, in a competitive application process. They are relieved of their direct care clinical duties every other week for 3.5 hours, and the Nursing and Patient Care Services Department provides their salary. Scholars participate for a total of 18 months. The Scholars learn how to analyze literature and guidelines using Review Manager 5.3 and AGREE II.

**Results**
Currently there are 14 Scholars in the program with representatives from Nursing, Pharmacy, Radiology, Respiratory Care, and Social Work Services. Over the last 3 years, the Scholars have analyzed 568 research articles and guidelines. There is a 40% return rate of tenured Scholars.

**Discussion**
The Office of Evidence Based Practice synthesizes articles ready by the Scholars into information packages for the CPG teams. Scholars have allowed the CPG teams to focus on being content experts. We believe we have reduced implicit bias in literature reviews. Additionally, the Scholars program strengthens the Scholars' understanding of EBP.

**Implications for guideline developers/users**
This program has standardized literature analysis and reduced guideline development bias. In addition, the time to develop CPGs has decreased. Finally, direct care staff has deeper understanding of how to read and analyze research studies.

## Oral Abstract Presentations

### (OR 33) IOM Standards 7 Years Later: "Checking the Box" on Patient Engagement

First Author: Melissa J. Armstrong – ,
Second Author: Shannon Merillat
Third Author: Thomas S. D. Getchius – Director, Clinical Practice, American Academy of Neurology

**Background**
The Institute of Medicine (IOM), Guideline-International-Network (G-I-N) and others recommend patient and public involvement in guidelines, but little is known regarding current practices.

**Objectives**
To assess current patient engagement and public involvement practices of North American guideline developers.

**Methods**
Websites of G-I-N North America organizational members were reviewed for patient and public methodologies.

**Results**
Of 26 G-I-N North America organizational members, 21 were independent guideline developers and included in the review. Only 2 (9.5%) post protocols for public comment. Only 8 (38%) describe posting draft guidelines for public comment prior to publication at least some of the time. None of these developers post guideline materials aimed at lay stakeholders. For developers describing public comment, comment periods last 14-60 days. Fifteen guideline developers (71.5%) describe an invited external review process for at least some guidelines, but only four (4/15, 26.7%) include patients/patient organizations as part of external review and three of those organizations also perform public comment. Three (14.3%) organizations require patient or public involvement on guideline development groups (GDGs), three (14.3%) require it sometimes, six (28.6%) state patient engagement is optional, and seven (33.3%) either exclude patients or don't mention patient involvement. Only seven (33.3%) developers produce patient-facing guideline materials and none indicate patient involvement in their development.

**Discussion**
Despite standards from the IOM and others requiring patient engagement in guidelines and IOM standards requiring public comment, these practices are still uncommon among North American guideline developers.

**Implications for guideline developers/users**
There is clear room for improvement in patient and public involvement strategies in guideline development.

## Oral Abstract Presentations

### (OR 34) The Development of an International Practice Guidelines Registry Platform

First Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Second Author: Mengshu Wang
Third Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Fourth Author: Xiaoqing Wang
Fifth Author: Kehu Yang

**Background**
In 2008 WHO established International Clinical Trials Registry Platform (ICTRP) and the registration of all intervention trials is regarded as a scientific, ethical and moral responsibility. In 2011 PROSPERO, an international prospective register of systematic reviews was launched and it aims to provide a comprehensive listing of systematic reviews registered at inception to help avoid unplanned duplication and enable comparison of reported review findings with what was planned in the protocol. However, very few organizations and programs focus on registration for practice guidelines.

Objectives
**To develop an International Practice Guidelines Registry Platform (IPGRP).**

**Methods**
literature review, focus group and database development.

**Results**
The International Practice Guidelines Registry Platform (IPGRP) was established in January 1st 2014. This initiative provides a free and open platform for practice guidelines internationally. The platform has three databases, guideline methodologists, systematic reviewers and representatives of patients and the public. About twenty organizations and institutions have endorsed the program. It is estimated that 20 to 30 practice guidelines on clinical medicine, public health and health policy as well as Traditional Chinese Medicine will register before 2016 G-I-N. The official website is www.guidelines-registy.org.

**Discussion**
The registration of practice guidelines will not only make the development process more transparent and decrease duplication but also will promote the collaboration between different developers as well as dissemination and implementation.

**Implications for guideline developers/users**
It is expected that IPGRP together with the two programs of ICTRP and PROSPERO may constitute a more comprehensive registration system for clinical trials, systematic reviews and practice guidelines in the future.

## Oral Abstract Presentations

### (OR 35) Development of PRISMA Extension for Systematic Reviews of Complex Interventions

First Author: Jeanne-Marie Guise
Second Author: Mary Butler
Third Author: Christine S. Chang – Medical officer, Agency for healthcare Research and Quality
Fourth Author: Meera Viswanathan
Fifth Author: Miguel Hernan
Sixth Author: Terri Pigott
Seventh Author: Peter Tugwell – Director, Centre for Global Health, University of Ottawa

**Background**
Although clinical practice guidelines often address complex interventions, there is no gold standard for which elements of complex interventions should be consistently reported in systematic reviews of complex interventions. A report on systematic reviews of complex interventions noted inconsistent reporting that may impact their usefulness and relevance, and hinder implementation of findings by end-users.

**Objectives**
We describe the development and items of a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension for complex interventions.

**Methods**
We followed the EQUATOR Network guidance for PRISMA development including a literature scan and interviews with technical experts; a Delphi process to prioritize and select elements for inclusion; in-person meeting for discussion; and broad input and final consensus by international experts.

**Results**
The extension includes eight new items specific to complex interventions. Complexity types in the extension are related to the pathway, intervention, population, implementation and context. Existing PRISMA items require broad interpretation for adequate reporting for complex interventions such as searches, data types, and analytic approaches.

**Discussion**
Adoption requires a balance between the number of elements and the practicality of reporting. We focus on the main intent of this guidance—to improve consistency, promote transparency, and improve usefulness to end-users. Consistent reporting can assist end-users in understanding how and where to apply findings.

**Implications for guideline developers/users**
Personalized guidelines require systematic reviews that explore and consistently report complexity. An understanding of complexity and end-user input can improve reporting and usefulness by ensuring the inclusion of relevant complexity in the systematic review.

## Oral Abstract Presentations

### (OR 36) A Systematic Review of COPD Patients' Values and Preferences: Quantitative Studies on Outcome Importance

First Author: Yuan Zhang – PhD candidate, McMaster University
Second Author: Pablo Alonso
Third Author: Gordon Guyatt – McMaster University
Fourth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University

**Background**
Systematic reviews on patient values and preferences are not common and take different approaches.

**Objectives**
To summarize the evidence of COPD patients' values and preferences and in so doing provide an approach to definition, classification and characterization of relevant studies for guideline development.

**Methods**
We operationalized values and preferences as "the relative importance patients placing on the outcomes". We systematically search the databases and summarized the eligible studies into pre-specified categories as utility or health state value, direct choice, non-utility measurement of outcomes, or qualitative studies.

**Results**
Of the 33,601 records screened, we included 170 quantitative and 153 qualitative studies. The quantitative studies could be further divided into sub-categories: direct measurement of utilities including 8 standard gamble studies, 5 time trade off studies, 51 visual analogue scale studies and 74 studies on indirect measurements, 5 willingness-to-pay studies and 12 studies asking patients to trade-off between options or rank them, 9 preference trials, and 22 surveys asking what patients would prefer , or how important outcomes are. Other studies reported preference of other aspects, such as place of dying.

**Discussion**
Depending on whether to inform a decision making in a clinical or public health setting, in individual patient level or population level, the magnitude of relevance for one certain study would change.

**Implications for guideline developers/users**
We summarized patient values and preferences on COPD according to the definition of "relative importance of outcomes" and developed a classification system for the relevant studies. Our classification system may be helpful for guideline developers to conduct systematic reviews of values and preferences.

## Oral Abstract Presentations

### (OR 37) Guideline adherence: How Do Boards of Directors Deal with It? A Survey in Dutch Hospitals?

First Author: Louise Blume – Policy officer,
Fourth Author: Diana M.J. Delnoij – (1) Head of Department for Research, Development and International Affairs, (2) Professor of Transparency in Healthcare, (1) National Health Care Institute (Zorginstituut Nederland), (2) TRANZO, Tilburg University
Second Author: Nico van Weert
Third Author: Jamiu Busari

**Background**
This study examines how Boards of Directors of general and specialised hospitals in the Netherlands deal with guidelines for medical specialists, how they arrange responsibilities for compliance within their organisation, and which challenges or problems they experience in organising compliance.

**Objectives**
How do Boards of Directors of hospitals deal with guideline compliance?

**Methods**
We conducted a digital survey, collecting both quantitative and qualitative data to investigate challenges Dutch hospitals face with regard to guideline compliance. 116 hospitals were invited, and 39 participated.

**Results**
The boards of directors reported that 59% do find the establishment of the responsibility for compliance with guidelines for medical specialists problematic, whereas 41% experience no problems. Almost 60% of the participants stated that the structure in their hospital is decentralised to ensure that guidelines for medical specialists are known by those responsible for their implementation.

**Discussion**
Boards experience challenges in arranging responsibilities for compliance within their organisation. The participants stated that in a more desired situation the ultimate responsibility of the board of director would decrease and the responsibility of the medical specialists would increase. 97% of the participants stated that it is important that hospitals comply with the guidelines for medical specialists, while only 42% stated that this is feasible.

**Implications for guideline developers/users**
The results show that there is a gap between the desired and the actual situation. Guideline developers should keep that in mind during development.

## Oral Abstract Presentations

### (OR 38) Innovative Dissemination of AAOS Clinical Practice Guidelines: An AHRQ Funded Initiative

First Author: Kaitlyn S. Sevarino – Evidence-Based Quality and Value Coordinator, American Academy of Orthopaedic Surgeons
Second Author: Peter Shores – Evidence Based Medicine Statistician, American Academy of Orthopaedic Surgeons
Third Author: Deborah Cummins – Director, Research, Quality and Scientific Affairs, American Academy of Orthopaedic Surgeons (AAOS)
Fourth Author: Kevin Bozic

**Background**
An AHRQ grant funded project developed an innovative dissemination strategy for clinical practice guidelines (CPGs), utilizing a web platform and mobile app.

**Objectives**
To share the results of an appraisal of new dissemination channels to evaluate, and improve upon, web and mobile technology strategies.

**Methods**
The AAOS membership was surveyed both prior to and following the launch of the web platform to assess usage and impact. Members were surveyed regarding their CPG usage, the usefulness of CPGs, their smart-phone and web usage, and their smart-phone and web usage of CPGs.

**Results**
The survey results showed an increase across multiple variables determining frequency and ease of access of CPGs via web and mobile devices. Respondents were more likely to find what they were looking for in CPGs (41.5% to 48.5%), more likely to have accessed a CPG via smart-phone app (33% to 16.1%), more likely to find smart-phone apps for CPGs useful (79.6% to 93.6%), and more likely to have accessed a CPG online within the last month (28.7% to 33.3%).

**Discussion**
The survey results demonstrate a change in behavior among AAOS members after the implementation of an innovative dissemination strategy utilizing technology. The results suggest that dissemination and implementation strategies influence not only how often CPGs are accessed, but also how useful they are to AAOS members.

**Implications for guideline developers/users**
The new dissemination strategy offers implementation opportunities for guideline developers and reduces usage barriers for practitioners.

## Oral Abstract Presentations

### (OR 39) Developing Shareable Clinical Decision Support from Clinical Practice Guidelines

First Author: Jeremy Michel – Clinical Informaticist, ECRI Institute and The Children's Hospital of Philadelphia
Second Author: Jan Losby
Third Author: Randolph Barrows
Fourth Author: Nitu Kashyap
Ninth Author: Vivian Coates, MBA – ECRI Institute
Fifth Author: J. Jane S. Jue – Medical Director, National Guideline Clearinghouse and National Quality Measures Clearinghouse, ECRI Institute
Sixth Author: Eileen G. Erinoff, MSLIS – Director, HTA/EPC Information Center, ECRI Institute
Seventh Author: Amy Tsou
Eighth Author: David Fiellin
Tenth Author: Richard Shiffman – Associate Director, Yale Center for Medical Informatics, Yale School of Medicine

**Background**
A project converted opioid clinical practice guidelines into standardized and shareable clinical decision support (CDS) interventions to be used in and by electronic health records (EHRs) to support appropriate opioid prescribing. CDS tools can facilitate guideline-based care. This presentation will present a process for developing shareable CDS based on clinical guidelines.

**Objectives**
Presenters will showcase a transferable method that can be applied to any content area or any guideline recommendation statements.

**Methods**
The Guideline Elements Model (GEM) was used to provide structure to opioid prescribing recommendations and to support concept encoding using standard clinical taxonomies. This approach provided a foundation for concept encoding, local CDS development, and Health eDecisions knowledge artifact development.

**Results**
We formalized several high impact recommendations as CDS in a commercially available electronic health record. We developed a Health eDecisions knowledge artifact to create a shareable version of the CDS.

**Discussion**
Local CDS implementation defined the intervention and workflow sufficiently to complete Health eDecisions development. Discussion will include how the shareable CDS can be applied to CDC Guideline for Prescribing Opioids for Chronic Pain released in March 2016.

**Implications for guideline developers/users**
Shareable CDS allows for efficient extension of a CDS module/order sets/decision rules into clinical systems across institutions that have different vendor systems. Shareable CDS will improve decision making and enhance dissemination of clinical decision support across health systems and the greater dissemination of these supports within EHRs, the greater impacts we could see on prescribing behavior.

## Oral Abstract Presentations

### (OR 40) Influencing Practice, Influencing Change - Guideline Development Group Members as Agents of Change

First Author: Beatrice Cant – Programme Manager, Scottish Intercollegiate Guidelines Network (SIGN)

**Background**
Implementation is key to the future of guidelines, but assessing if and how this occurs is a challenge. Guideline development group (GDG) members give of their time and expertise but the extent to which they act as agents of change once guidelines are published is uncertain.

**Objectives**
To assess what clinicians involved in GDGs get out of the process, whether it changes their clinical practice, and how they influence guideline implementation.

**Methods**
Questionnaire survey of 55 healthcare professionals on 8 SIGN guidelines published 2013-15

**Results**
64% said the opportunity to change clinical practice was their main motivator for participation; 67% changed their own practice, 73% used the GL in discussions with colleagues, 68% with patients; half used it in daily practice; 93% actively promoted the GL, eg in multidisciplinary meetings (78%), reports (63%), presentations (53%) or with medical staff (67%). A third changed their treatment approach and half were more confident expressing their views at clinical meetings.

**Discussion**
GDG members learn from as well as give to the GDG; they change their own clinical practice and influence others to change theirs. A strong educational aspect emerged, with members reporting increased confidence in hard skills, eg critical appraisal, and soft skills, eg interactions with clinicians and patients and speaking up and challenging ways of working.

**Implications for guideline developers/users**
Informal implementation activities by GDG members are important and should be harnessed to enhance formal approaches. Increasing guideline professionals' and reducing clinicians' input to guideline development may have detrimental effects on clinical engagement, learning opportunities and implementation.

## Oral Abstract Presentations

### (OR 41) Assessing First-Time User Experiences of the Ash Pocket Guides App to Enhance User Adoption and Retention

First Author: Patrick C. Irelan – Quality Improvement Specialist, American Society of Hematology
Second Author: Robert Kunkle – Senior Manager, Practice Guidelines, American Society of Hematology
Third Author: Robert M. Plovnick – Director of Quality Improvement, American Society of Hematology

**Background**
ASH has published nine clinical reference pocket guides based on guidelines and other sources. The ASH pocket guides have been an enormously popular product of the Society, with over 75,000 distributed in 2015. These pocket guides were translated into a mobile app to simplify access and enhance usability. The app developers leveraged the concentration of probable users at the American Society of Hematology's (ASH) annual meeting to assess first-time user experiences with the app.

**Objectives**
To obtain information about first-time experiences of the app by probable users for the purpose of identifying areas for enhancement.

**Methods**
At demonstration kiosks at the highly trafficked ASH Booth at the 2015 ASH annual meeting, individuals involved in developing the app passively observed a large cohort of users trying the app for the first time, spoke with 175-200 individuals directly about their experiences with the app, and performed in-depth interviews with 50 people who had downloaded the app for the first time (employing a coffee shop gift card as an incentive).

**Results**
Observations and responses from in-depth interviews of users identified positive reactions to the app as well as areas for improvement.

**Discussion**
Leveraging the annual meeting for user testing provided for a concentrated yet diverse cohort of probable users and resulted in actionable data that will be translated into improvements.

**Implications for guideline developers/users**
A combination of passive observation and interviews with a large cohort of first-time app users can inform modifications and enhance implementation of included recommendations.

## Oral Abstract Presentations

### (OR 42) The American College of Physicians Review of Clinical Performance Measures: Summary of Methods

First Author: Sarah Dinwiddie, RN, MSN – Clinical Policy Associate, Performance Measurement, American College of Physicians
Second Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians

**Background**
Over the last decade, great effort has been put into developing measures that can be used to gauge and improve quality. While these efforts have yielded many reputable measures, for which tracking is expected to improve aspects of health, measures are uneven across clinical areas and have high administrative burden. Moreover, and perhaps most significant, many measures are not evidence-based, do not endure a standardized, scientific review process, and fail to produce data and information that is actionable at the point of care.

**Objectives**
As physicians struggle to navigate through countless performance measures, and report on measures that are marginally representative of the quality of care they provide, the American College of Physicians (ACP) attempts to diminish this burden by lending clinical and practice expertise to the endorsement and development of quality measures relevant to internal medicine.

**Methods**
Using an explicit criteria set, the ACP Performance Measurement Committee (PMC) reviews measures for applicability to physician-level quality assessment and reporting.

**Results**
Findings from the committee's review of various measure sets suggest there are problems with the current quality measurement process that should be addressed.

**Discussion**
Given the experience of this committee and the growing sentiment among practicing physicians that our current measurement system is flawed we suggest that we all reconsider how quality measurement can best be applied to different levels of the care delivery system to achieve our common goal of improving the health of our patients and communities.

**Implications for guideline developers/users**
Guideline developers should consider how evidence-based recommendations are likely to translate into clinical performance measures.

## Oral Abstract Presentations

### (OR 43) Methodologies Used in Adaptation of Health Related Guidelines: A Systematic Survey

First Author: Rima A. Abdul Khalek
Second Author: Andrea J. Darzi
Third Author: Mohammad W. Godah – Trainee, The American University of Beirut (AUB) GRADE Center, Clinical Research Institute (CRI), AUB, Beirut, Lebanon
Fourth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Fifth Author: Elie A. Akl – American University of Beirut

**Background**
The evaluation of methodologies used for adapting guidelines is needed to ensure their high quality and applicability.

**Objectives**
To assess the methodology used for adapting guidelines published in peer-reviewed journals, and to assess their quality.

**Methods**
We searched Medline and Embase databases. We used the ADAPTE tool to assess the adaptation methodology, and AGREE II tool to assess the quality.

**Results**
Seventy-two adapted guidelines were eligible. The majority of adapted guidelines and their source guidelines were published by professional societies (71% and 68% respectively), and in high-income countries (83% and 85% respectively). Twenty-one percent of adapted guidelines did not report any detail about adaptation methodology. Of those that did, 60% did not use a published adaptation methodology. The ADAPTE framework was used by 26%. The percentage of adapted guidelines fulfilling each of the ADAPTE steps ranged between 4 % and 100%. The quality of adapted guidelines was highest for "scope and purpose" (93%) domain and lowest for "editorial independence" domains (43%). The score for "rigor of development" was 57%. The AGREE II "applicability" domain score of adapted guidelines was significantly associated with reporting the use of a published adaptation methodology.

**Discussion**
The majority of adapted guidelines published in peer-reviewed journals do not report using a published adaptation methodology, and their quality was variable. This may affect the quality and applicability of the adapted recommendations.

**Implications for guideline developers/users**
Guideline adaptations need to follow methodologies specifically designed for this purpose. They also need to improve on the reporting of their methods.

## Oral Abstract Presentations

### (OR 44) UpPriority Project: Design and Implementation of an Updating Prioritization Tool

First Author: Laura Martínez García – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau)
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Third Author: David Rigau
Fourth Author: Pablo Alonso-Coello – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau), McMaster University
Fifth Author: on behalf of the Working Research Group

**Background**
Organizations are shifting from developing to updating; guidance on prioritizing when updating will optimize resource use. However, there is a lack of consensus on the optimal methodology to prioritize the update of clinical guidelines (CGs).

**Objectives**
To develop an updating prioritization tool (UpPriority) for CGs developers.

**Methods**
This research project has three complementary studies: a) A systematic review to identify, describe and evaluate strategies to prioritize the update of CGs, systematic reviews (SRs) and health technology assessments (HTAs); b) A multi-step process to develop the tool (assessment of existing CGs, a Delphi consensus survey, key informant interviews, and a formal external review by both clinical guidelines' methodologists and guideline users); and c) A descriptive study of the tool implementation to optimize the updating process in the Spanish National Guideline Programme.

**Results**
We will present the research protocol and preliminary results of the initial systematic review at the 13th G-I-N Conference (Philadelphia, 2016).

**Discussion**
The updating of CGs has to shift from a periodic approach (based on specific time frames) to a flexible approach (based on the prioritization of topics in greater need of an update) to improve the efficiency of the process.

**Implications for guideline developers/users**
Given the high volume of clinical CGs eligible for updating, guideline developers need a tool to prioritize those in greatest need of an update. The UpPriority tool will prove useful for this purpose.

## Oral Abstract Presentations

### (OR 45) Clinical Practice Guidelines for Hypertension in Africa: Do We Have All the Ingredients for the Recipe?

First Author: Patrick Okwen Mbah, MD – Scientific Committee, Centre For Development of Best Practices in Health
Second Author: Irene Maweu
Third Author: Pierre Ongolo-Zogo

**Background**
Hypertension contributes significantly to burden of disease within Africa. Evidence based clinical practice guidelines for hypertension will significantly reduce the burden attributed to hypertension, however guidelines picture for Africa is unclear. WHO has taken major steps to improve quality of guidelines for infectious diseases, non-communicable diseases have been largely ignored.

**Objectives**
Evaluate hypertension CPG availability and quality within Africa and explore possibilities of informing guidelines with evidence from within the community using AGREE tool and evidence to decision frameworks.

**Methods**
CPGs and RCTs for hypertension from Africa were systematically searched. We evaluated the CPGs using AGREE online tool then evaluated the quality of evidence from RCTs.

**Results**
14 CPGs complying with our criteria for 14 countries out of 62 (24.2%) were included. 8 countries (12.9%) adopted WHO-ISH guidelines; 2 countries (3.2%) adopted guidelines; 3 countries (4.8%) had CPGs under-production; 35 countries (56.5%) lacked CPGs. All CPGs scored poorly on 6 domains of AGREE tool.

50 RCTs were extracted from 84 studies identified from 69 authors conducted in 18 countries with 8 unclear countries and published in 47 journals, with 9 journals being African Journals. Nigeria and South Africa were the countries where clinical trials were most likely to be carried out.

**Discussion**
Stakeholders need to wake up to the need to adapt or develop CPGs informed with relevant evidence. It cannot be said any longer that there is lack of evidence for locally adapted or developed CPGs

**Implications for guideline developers/users**
Guideline developers have huge body of evidence to use to inform decision making for treatment of hypertension.

## Oral Abstract Presentations

### (OR 46) The Quality of Who Emergency Guidelines for the Ebola Virus Disease Outbreak in West Africa During 2013-2016

First Author: Veronica I. Sawin – Contractor, World Health Organization
Second Author: Susan L. Norris, MD, MPH, MS – The World Health Organization
Third Author: Mauricio Ferri
Fourth Author: Laura R Sastre

**Background**
The World Health Organization (WHO) is mandated to provide high-quality and timely normative guidance to lead an effective response to public health emergencies.

**Objectives**
To characterize and to evaluate the quality of WHO emergency guidelines for the Ebola virus disease (EVD) outbreak in West Africa during 2013-2016.

**Methods**
We identified EVD-related guidelines, defined as documents that contain original recommendations, from the WHO Institutional Repository for Information Sharing (IRIS) database, department websites, and consultations for this cross-sectional study. We evaluated the quality of each guideline using the Appraisal of Guidelines for Research and Evaluation (AGREE) II instrument, and collected data on the frequency of downloads from the IRIS database.

**Results**
Among 48 included EVD guidelines, only four guidelines reported that declarations of interest had been obtained from external contributors. The highest overall AGREE II scores were recorded in clarity of presentation (median 79%) and scope and purpose (70%), with the lowest scores in editorial independence (0%) and rigour of development (7%). Guidelines labeled as a guideline or guidance (n=23) scored statistically significantly higher in scope and purpose (Wilcoxin; $p < 0.001$), stakeholder involvement ($p=0.03$), and applicability ($p < 0.01$). Domain scores were not statistically significantly associated with download frequency (Spearman's correlation; $p>0.05$ for all domains).

**Discussion**
WHO emergency guidelines for EVD often provided insufficient information on the methods for development. Derivative products may have been misclassified as guidelines, particularly if citations were not provided.

**Implications for guideline developers/users**
Despite challenges related to the emergency context, including time constraints and evidence gaps, transparency remains a critical issue.

## Oral Abstract Presentations

### (OR 47) Ranking Guidelines: A Prioritization Framework with Multicriteria Decision Analysis (MCDA)

First Author: Ana Carolina de Freitas Lopes – Social Policies Analyst, Ministry of Health of Brazil
First Author: Andrea Brigida de Souza – Social Policies Analyst, Ministry of Health of Brazil
Second Author: Edison Vieira de Melo, Jr. – Ministry of Health of Brazil
Second Author: Jorgiany Souza Emerick Ebeidalla – Ministry of Health of Brazil
Second Author: Tacila Pires Mega – Ministry of Health of Brazil
Second Author: Vania Cristina Canuto Santos – Ministry of Health of Brazil
Second Author: Clarice Alegre Petramale – Ministry of Health of Brazil

**Background**
Multicriteria Decision Analysis (MCDA) is a transparent and structured approach, which presents criteria with values reflecting its importance. In Brazil, the National Committee for Health Technology Incorporation (CONITEC) of the Ministry of Health (MoH) is developing a MCDA framework to prioritize national guidelines.

**Objectives**
To present the MCDA framework in development by CONITEC to structure a guidelines prioritizing in Brazil.

**Methods**
Value measurement model (VMM), within MCDA, was used to design categories, criteria and weights considered suitable for guidelines.

**Results**
Two categories were defined with equivalent value: 1. Internal assessment, measuring the interests of MoH and 2. Outside assessment, embrancing societal perspective identified by public consultation. “Internal assessment” included the criteria: number of public health services delivered for specific diseases or conditions (20 points); urgency (10 points) and new evidence available (20 points). “Outside assessment” included: public engagement (40 points) and overall quality of a guideline available, if any (10 points). Summing the scores for each proposal guideline yielded a ranked list, with higher scores reflecting greater priority.

**Discussion**
Within MCDA, VMM is the most widely used in health care. Criteria in both categories reflected the needs identified by the team and were valued according to the importance of each one in the context of prioritizing guidelines. The next step is to validate this framework to ascertain its sensitivity to capture the preferences of all stakeholders in this field.

**Implications for guideline developers/users**
MCDA seems to be an easier, comprehensive and understandable way to provide preference ranking in health care, which can be helpful in guidelines prioritization.

## Oral Abstract Presentations

### (OR 48) Public Hospital Quality Information: Should You Trust Your Magazine or Your Morning Paper?

First Author: Joppe Tra
Second Author: Irina Mostovaya – advisor, Knowledge Institute of Medical Specialists

**Background**
In the Netherlands, healthcare quality information is summarized in the popular media to assist patients in choosing a health care provider. The information is presented annually by both a magazine (Elsevier) and a national newspaper (AD). The fact that two media present information on the same subject provides a unique opportunity to compare their results. The assumption is that hospital quality is to some extent consistent in time and between measurement methods.

**Objectives**
To compare two methods for measuring and presenting hospital quality information from two Dutch popular media.

**Methods**
Both media did not report which quality indicators were selected and how. Elsevier selected 395/1043 of the available hospital quality indicators used by two renowned Dutch quality institutes. Indicators that were not corrected for case-mix were excluded from their analysis. Hospitals were appointed 1-4 stars. AD based their scores on 36 hospital quality indicators, selected from the safety indicators used by the Dutch Health Care Inspectorate. Both inter-annual (2014-2015) and inter-media comparisons were performed by means of intraclass correlation coefficients (ICC).

**Results**
For the AD hospital scores 2014-2015, the ICC was 0.389. For the Elsevier hospital scores 2014-2015, this was 0.184. After categorizing the AD scores, 35 of the 81 hospitals were in the same category as in the Elsevier list, with an ICC of 0.204.

**Discussion**
The hospital quality information presented in two Dutch popular media does correlate well with either previous results or with each other.

**Implications for guideline developers/users**
Do not trust either your magazine or your morning paper.

## Oral Abstract Presentations

### (OR 49) The COMET (Core Outcome Measures in Effectiveness Trials) Initiative: Core Outcome Sets for Clinical Guidelines

First Author: Paula Williamson – Professor of Medical Statistics, University of Liverpool
Second Author: Sarah Gorst
Third Author: Doug Altman
Fourth Author: Jane Blazeby
Fifth Author: Mike Clarke
Sixth Author: Sean Tunis – President, Center for Medical Technology Policy
First Author: Elizabeth Gargon – COMET Project Coordinator, University of Liverpool

**Background**
A core outcome set (COS) is an agreed standardised set of outcomes that should be measured and reported, as a minimum, in all clinical trials in a specific condition. This allows research to be compared and combined as appropriate, and ensures that all studies provide usable information. A number of COS also intend their recommendations for use in routine clinical practice. The COMET Initiative provides a database of COS. The National Institute for Health and Care Excellence (NICE) recommend the use of COS where appropriate in their methods manual for developing guidelines (http://www.nice.org.uk/article/pmg20).

**Objectives**
To describe the rationale for COS in clinical guidelines, and how the COMET database can facilitate this.

**Methods**
A systematic review identified studies reporting COS development. Ongoing studies are also identified.

**Results**
11% of published COS (26/227) intended their recommendations for clinical practice as well as health research. 23% (6/26) included patient participants in COS development. Furthermore, 60% of the 50 most recently added ongoing studies indicated that their COS is intended for research and clinical practice, of which 90% include patient participants.

**Discussion**
COS increase the efficiency and value of research and contribute to the delivery of high quality care. Patient participation is vital to ensure that outcomes are relevant to patients. COMET makes it easier for people to design research and make well-informed decisions about healthcare.

**Implications for guideline developers/users**
COS help guideline developers to choose outcomes, and increase the likelihood that these outcomes have been measured in relevant studies. COMET makes it easier for guideline developers to access and implement COS.

## Oral Abstract Presentations

### (OR 50) An Online Survey to Understand the Views of Future Priorities for Public Involvement in Nice Work

First Author: Xia Li
Second Author: Victoria Thomas – Head of Public Involvement, National Institute for Health and Care Excellence (NICE)
Third Author: Jane Cowl
Fourth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
The National Institute for Health and Care Excellence (NICE) is reviewing its approach to involving patients and the public in its work, to continually deliver high quality public involvement in a rapidly-changing environment.

**Objectives**
To understand the public involvement priorities among NICE's stakeholders and public involvement experts in relation to guidance development.

**Methods**
An online survey, comprising 12 questions, was open for two weeks and a sample of three groups was invited, including external stakeholders, NICE's Board and committee members, and NICE staff.

**Results**
The survey yielded 684 responses. The majority of respondents identified most stages as important for public involvement but the top three important areas are:
• defining the outcomes the guidance should consider;
• setting key questions for reviewing the evidence; and
• commenting on draft guidance.
The majority of respondents indicated that NICE should incorporate the views of patients who are directly affected by a guidance topic when making recommendations about the funding of treatments and about individual treatment decision-making. By contrast they suggested that the general public's views should be incorporated when making recommendations about population-based public health interventions

**Discussion**
The findings support the importance of all of NICE's current public involvement activities. Areas for improvement were identified, such as providing people with a more structured approach to feed back their experience of involvement, and better communication about involvement opportunities.

**Implications for guideline developers/users**
The findings will shape future priorities for NICE's public involvement work and indicate the most effective use of resources to maximise the impact of patients and the public in guidance development work.

## Oral Abstract Presentations

### (OR 51) To Update or Not to Update: Deciding If Clinical Guidelines Should Be Updated or Not

First Author: Katrina L. Sparrow – Technical Adviser
Second Author: Emma McFarlane – Technical Adviser
Third Author: Sarah Willett – Associate Director
Fourth Author: Philip Alderson – Clinical Adviser
Fifth Author: Andrea Juliana Sanabria – Technical Analyst

**Background**
NICE regularly conducts surveillance reviews of clinical guidelines. The surveillance review identifies recommendations that are no longer current or need to be revised and therefore if a guideline requires updating.

**Objectives**
To describe the process the surveillance programme uses to decide if clinical guidelines require updating.

**Methods**
Guideline surveillance take account of systematic search of evidence published since the guideline, related NICE guidance, feedback from the previous guideline committee as well as any other correspondence from stakeholders. This information is considered alongside the guideline recommendations to evaluate if the recommendations are current or if they need to be updated.

**Results**
The decision making process used by the NICE surveillance team will be described. This includes how the evidence, related guidelines and topic expert feedback is considered together. The process of once the decision to update is made and the stages evaluating this decision with topic experts and the evidence to decision framework which has been developed to ensure the guideline is updated in the most appropriate way.

**Discussion**
Updating guidelines requires time and resources therefore it is important to ensure that guidelines that are no longer current are identified and updated. For the most efficient use of resources, decisions of which guidelines should be updated need to be based on evidence that challenges current recommendations rather than evidence that supports current recommendations.

**Implications for guideline developers/users**
This presentation will describe the decision making process used to assess if guidelines require updating.

## Oral Abstract Presentations

### (OR 52) Maintaining Wiki-Based, Dynamic Guidelines

First Author: Jutta Von Dincklage – Scientific Committee
Second Author: Emma Dickins
Third Author: Laura Wuellner

**Background**
Many guideline developers are moving towards more frequent and dynamic models of updating guidelines. Detailed data analysis in regards to the rate of new incoming literature and impact on recommendations across a continually updated wiki-based guideline is useful to determine resource planning, feasibility and inform dynamic guideline updating approaches.

**Objectives**
To analyse the literature updates and resulting recommendation changes across a guideline over a 5 year period.
To determine resources required to process and integrate the new literature.
To develop a practical metric to project future resourcing.

**Methods**
Using a standardized spreadsheet, the Guidelines Project Officer extracted and analysed total number of updates, time spent to screen, # of included articles, # of articles cited as key evidence and any resulting recommendation changes.

**Results**
A Project Officer, allocated 28 hours a month to screen incoming literature. Across a subset of 11 questions, a total of 1747 papers came through via automatic literature updates, with 33 included after assessment against the systematic review protocol, 6 studies were added as key references in the evidence summary statement and 2 recommendations were changed over the 5 year period. Results of the detailed analysis across the guideline's PICO questions will be presented at the conference.

**Discussion**
Important considerations and lessons learnt will be presented to inform dynamic guideline updating approaches.

**Implications for guideline developers/users**
Guideline developers could consider how these results might be relevant to their guideline updating approach and use similar methods to determine resourcing to support more frequent and targeted updating.

## Oral Abstract Presentations

### (OR 53) The Paradoxical Challenge for Guideline Methods: The Person Centred Health Care Clinical Guideline

First Author: Sue Lukersmith – PhD candidate, Research Associate, University of Sydney, Lukersmith & Associates Pty Ltd
Second Author: Luis Salvador-Carulla

**Background**
A key objective of clinical guidelines is consistency of practice. Arising from evidence based medicine, current best practice guideline methodology uses clinical research as the main source of knowledge. There is terminological variance on person-centred, people centred, patient centred and personalised medicine. There is an obligation for clinicians to use a guideline yet a contradictory pull to be less flexible and responsive to the patient's context, individual preferences and needs. It leads to poor uptake and implementation of recommendations and presents a barrier to person-centred care. There is an urgent need and challenge to develop guideline methodologies which recognise and use both discovery research and implementation knowledge to promote person-centred health care.

**Objectives**
To clarify and identify the key characteristics of person centred health care and sources of knowledge, to support the development of methods for person-centred guidelines; and to develop a preliminary method to assess for person-centredness.

**Methods**
An extensive literature review identified the key characteristics of person-centred health care. The characteristics were linked to a typology of scientific knowledge and a preliminary method for assessing guidelines 'person-centredness' was developed and piloted.

**Results**
Three guidelines which used standard and two emerging guideline methodologies (framing and logic modelling) were assessed. The results are presented.

**Discussion**
The key features and differences of person-centredness, advantages and disadvantages of each guideline development method are discussed. Further work is needed.

**Implications for guideline developers/users**
The contradictions in standard guideline methodology can be barriers to implementation. New methods that support person-centred care are needed.

## Oral Abstract Presentations

### (OR 54) A Cross-sectional Study of Non-Financial Conflict of Interest

First Author: Xiaoyang Song – Undergraduate, The first clinical medical college of Lanzhou university
Second Author: Xiaoqin Wang
Third Author: Yuting Gao – ,
Fourth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University

**Background**
NFCOI (non-financial conflict of interest) is defined as "a set of circumstances in which the primary interest (e.g. the quality and integrity of a guideline) will be unduly influenced by a non-financial secondary or competing interest". There are several classifications for NFCOI. Thus we conducted a cross-sectional study on the situation of the classification of NFCOI.

**Objectives**
To survey the situation and classification of NFCOI.

**Methods**
Relevant literatures was searched in PubMed.One researcher screened titles and abstracts with inclusion-exclusion criteria and identified literature eligibility through full-text reading, another researcher checked screening process and result. A complementary search was conducted by looking for all relevant references. We extracted basic and classification information of NFCOI and analyzed the data.

**Results**
404 studies were retrieved in total, and 17 studies containing the content of classification of NFCOI were included. The 17 studies involved 18 countries and 57 institutions with publication year ranging from 2004 to 2015. Included studies analyzed NFCOI in guideline, systematic review, meta-analysis and original research. They used following terms to describe NFCOI: nonfinancial COI(29.4%), intellectual COI(17.6%), intrinsic COI(5.9%), and indirect COI(5.9%). For NFCOI classification, though difference existed, it could be summarized as: personal knowledge and belief (70.6%, 12), career advancement (52.9%, 9), academic competing(76%, 9),social relationship(52.9%, 9),fame(46.2%, 6).

**Discussion**
There is no consensus upon the definition, term and classification of NFCOI. Though difference existed, classification of NFCOI mainly could be categorized into personal knowledge and belief, career advancement, academic competition, social relationship and fame.

**Implications for guideline developers/users**
Providing reference for the classification of NFCOI in guidelines.

## Oral Abstract Presentations

### (OR 55) Personalised Outcome Measurement? Differences in Patient Preferences for Outcomes of Hip/knee Surgery

Second Author: Diana M.J. Delnoij – (1) Head of Department for Research, Development and International Affairs, (2) Professor of Transparency in Healthcare, (1) National Health Care Institute (Zorginstituut Nederland), (2) TRANZO, Tilburg University
First Author: Bianca M. Wiering – PhD Student, TRANZO, Tilburg University
Third Author: Dolf de Boer – Senior Researcher, NIVEL (Netherlands Institute for Health Services Research)

**Background**
Patient-reported outcome measures (PROMs) are increasingly used to measure outcomes. However, if PROMs are used to establish the value of healthcare, they should measure outcomes that matter to patients.

**Objectives**
Research question: How important are different aspects of outcomes of hip and knee surgery measured with PROMs to patients?

**Methods**
All patients from 20 Dutch hospitals undergoing hip or knee surgery in 2014 were invited to a PROMs survey. Participants were asked to rate the importance of each of the items in the HOOS-Physical Function Shortform (HOOS-PS) or the KOOS-Physical Function Shortform (KOOS PS), the EQ-5D and the NRS pain.

**Results**
Most outcomes were considered important. However, 77.8% of hip surgery patients rated being able to run as unimportant. Pivoting or twisting on a loaded leg was rated unimportant by 22.6% of hip surgery patients and by 15.6% of knee surgery patients. A considerable amount of knee surgery patients were not interested in being able to kneel (32.7%) or squat (39.6%). However, for 21.1% (kneeling), respectively 19.4% (squatting) this was very important. Pain, especially during rest, was considered very important by both hip (68.2%) and knee (66.3%) surgery patients.

**Discussion**
Not all aspects of outcomes are equally important. Patients differ in what they expect from hip/knee surgery. This requires personalized care. Additionally, if PROMs are used in performance measurement, scores may need to be weighed for importance.

**Implications for guideline developers/users**
Guidelines should recommend that professionals explore patients' preferences and discuss which treatment options best fit patients' expectations.

## Oral Abstract Presentations

### (OR 56) Electronic Publication of the Norwegian Clinical Guideline for Diabetes: A Step Toward Personalized Care

First Author: Monica Sorensen – Senior Advisor, The Norwegian Directorate of Health
Second Author: Ingvild Felling Meyer – Senior Advisor, MD, The Norwegian Directorate of Health

**Background**
Electronic, patient-specific advice at the point-of-care is encouraged to improve implementation of guideline recommendations.

**Objectives**
To share the experience of electronic development and publication of the Norwegian clinical guideline for diabetes.

**Methods**
The electronic platform was developed simultaneously with the guideline development process; hence files with interim texts were saved in external databases and shared by e-mail within the guideline groups.

**Results**
Two years after the guideline's inception, 71 recommendations were finalized on the premise of GRADE- and evidence-to-decision methodology in Jan 2016. Each recommendation is electronically presented in a multi-layered grid, displaying only the most urgent clinical and practical information required to take a clinical decision together with the patient. Appraisal of research evidence, how clinical experience and stakeholder's preferences were considered and weighted to mold the wording and final strength of recommendations are presented in clickable layers following each recommendation.

**Discussion**
New, electronic content requirements help structure the messages and arguments, but limits the leeway for authors to rationalize their recommendations with epidemiologic, demographic and etiologic information. Challenges were met as the publication platform does not allow for tracking of changes or online communication between members of the guideline group. Problems yet to be solved is uncertainty regarding health care organization's firewalls; if they accept links and how to set standards for logic data mapping and coding that facilitate internal consistency in EHRs.

**Implications for guideline developers/users**
Despite the challenges, electronic publication with easy-access to single recommendations is important for the implementation of guidelines.

## Oral Abstract Presentations

### (OR 57) Cultural Factors, Ethnicity, Refugee and Migrant Health: Do Guidelines on Depression Address These Aspects?

Fourth Author: Corinna Schaefer
Second Author: Svenja Siegert
Third Author: Lydia Bothe
First Author: Sabine Schwarz – Research scientist,

**Background**
Today, an estimated 1 billion migrants live in the world according to the World Health Organization. Migration and its accompanying stressors may predispose to mental illness. Particularly, refugees experience excess health risks. Studies revealed that depression is prevalent in refugees. Additionally, cultural und ethnic aspects influence the prevalence and progression of diseases, the presentation of symptoms and interaction with service providers.

**Objectives**
To assess if information on cultural factors, ethnicity, refugee and migrant health were considered in clinical practice guidelines (CPGs).

**Methods**
We searched the International Guideline Library for CPGs in English or German primarily addressing the diagnosis and treatment of depression in adults. We screened the content of these CPGs and extracted information.

**Results**
We included 7 CPGs. 4 CPGs provided information on cultural factors, ethnicity and migrant health. Not one of the CPGs addressed refugee health. 4 CPGs gave explicit recommendations. 3 CPGs had individual chapters or sections. Epidemiological differences were reported in 3 CPGs. We found information on cultural and ethnic differences in the diagnosis and treatment on depression in 4 CPGs. Only 1 CPG referred to use of health services.

**Discussion**
Although many CPGs include detailed information on cultural factors, ethnicity and migrant health, not all CPGs address these aspects. Especially information on mental health of refugees is missing. However, these health aspects are becoming increasingly important.

**Implications for guideline developers/users**
Guidelines developers should consider available literature relative to cultural factors, ethnicity, refugee and migrant health.

## Oral Abstract Presentations

### (OR 58) How Many Guidelines Considered Special Population in the Recommendations?

First Author: Zheng Liu
Second Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Third Author: Shujun Xiao
Fourth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Fifth Author: Kehu Yang

**Background**
The recommendations of guidelines should be explicit and concrete, and can inform the clinicians of the target population. Also, the recommendations are different for special population.

**Objectives**
To explore the recommendations for special populations taking Chinese guidelines published in journals in 2015 as an example.

**Methods**
We electronically searched Chinese databases. The date was limited from January 1st 2015 to December 31th 2015. Two reviewers independently screened literature and extracted data. Any disagreement was solved by discussion.

**Results**
Eight-five Chinese guidelines published in journals in 2015 were included. Seventeen guidelines (24%) had the clear recommendations, the total number of which were 498. Among these recommendations, three guidelines (4%) had 24 recommendations that targeted for the special population. There were 19 kinds of special populations, and the top three were children, pregnant women and patients with hepatic dysfunction.

**Discussion**
Most of Chinese guidelines failed to report the recommendations clearly and few guidelines mentioned the special population.

**Implications for guideline developers/users**
In order to improve the clinical effects of guidelines, it is necessary for guideline developers to report the clear and explicit recommendations and indicate the target population, especially the special population.

## Oral Abstract Presentations

### (OR 59) Shared Decision Making in a Guideline on Pregnancy and Work

First Author: Carel Hulshof – Professor in Occupational Medicine / Co-ordinator Guidelines Netherlands Society of Occupational Medicine, Netherlands Society of Occupational Medicine (NVAB) / Academic Medical Center (AMC), Coronel Institute of Occupational Health, Amsterdam
Second Author: Karen Nieuwenhuijsen
Third Author: Judith Sluiter

**Background**
So far, in the field of Occupational Health (OH), the application of shared decision making (SDM) in guidelines is not very well developed. However, many good reasons for SDM exist as high level evidence on effectiveness of many OH interventions is still scarce.

**Objectives**
To support the updating of the Dutch guideline on pregnancy and work, we studied a theoretical preference-sensitive decision in a preventive consultation by an occupational physician (OP): the prevention of preterm birth in nurses exposed to physically demanding work during their pregnancy. The aim is to investigate whether different presentations of the evidence and recommendations from two guidelines on pregnancy and work influence the risk perception, the attitude and the self-efficacy of OP's to come to a shared decision.

**Methods**
A vignette study of a preventive consultation by an OP with two different nurses from the neurological ward from a large hospital who are both three months pregnant. The main question is if the nurses can continue their work during the pregnancy in a regular way. Two different recommendations, from a UK and a Dutch guideline and two different workers' scenario's are presented. By direct mail, OP's working for the healthcare sector were asked to participate and complete the questionnaire with the vignettes.

**Results**
Data collection is on-going. Results will be available at the GIN Conference.

**Discussion**
More attention for SDM in a preventive context is needed.

**Implications for guideline developers/users**
A small scale study like this one may support the inclusion of SDM in guidelines.

## Oral Abstract Presentations

### (OR 60) Evidence Gathering for Guideline Development in the Management Rare Diseases: An Example from Hemophilia

First Author: Cindy H.T. Yeung – Clinical Epidemiology & Biostatistics, McMaster University, Hamilton, ON, Canada
Second Author: Menaka Pai
Third Author: Nancy Santesso – Assistant Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University
Fourth Author: Mark Skinner
Fifth Author: Ellen Riker
Sixth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Seventh Author: Alfonso Iorio

**Background**
In May 2012, the National Hemophilia Foundation (NHF) of the United States partnered with McMaster University to develop a guideline on care models for hemophilia management. A relative paucity of direct high quality evidence was anticipated.

**Objectives**
Our objective was to explore alternative methods to gather relevant evidence on patient important outcomes and particularly on patient preferences.

**Methods**
Patient stakeholders were involved throughout the guideline development process; from the selection of outcomes, to the formulation of recommendations. A sensitive search strategy, inclusive screening criteria, and hand-searching of relevant journals and abstracts were used. Additional methods used were: standardized expert opinion elicitation; qualitative interviews were conducted with stakeholders of the guideline, including parents and persons with hemophilia; assessment of indirectness of evidence from relevant other diseases.

**Results**
Extensive evidence gathering methods identified seven studies on equity, three studies on acceptability, and one unpublished paper on feasibility. The qualitative interviews identified preferences and key themes important to persons with hemophilia. Expert opinion and judgment of indirectness allowed incorporating additional evidence in the process.

**Discussion**
We presented all the retrieved and generated evidence to the guideline panelists via evidence profiles and evidence to recommendation tables. These results led to the discussion of important factors to consider for persons with hemophilia and the incorporation into the guideline recommendations.

**Implications for guideline developers/users**
The methods we have tested in this specific guideline process might prove useful when issuing guidelines in the setting of rare diseases. The role for direct patient involvement has been confirmed.

## Oral Abstract Presentations

### (OR 61) Can Priority-funded Nice Research Topics Have an Impact on Guidelines Recommendations? A Retrospective Study

First Author: Moni Choudhury
Second Author: Sarah Garner
Third Author: Juan Carlos Rejon

**Background**
Since 2005, NICE has been prioritising its most important research recommendations collaboratively with the National Institute for Health Research (NIHR). The results of this ongoing arrangement to date are: NIHR-funded research projects worth over £30m, and a dynamic and evolving research prioritisation process.

**Objectives**
This study ultimately aims to identify if 'new' evidence arising from NICE-prioritised topics and subsequently NIHR-funded research, led to changes in guideline recommendations as part of NICE guidelines review process.

**Methods**
A retrospective collaborative (NICE/NIHR) review of:
1. NICE guidelines research recommendations that were:
a) identified by NICE as priorities
b) progressed through NIHR prioritisation process
c) commissioned by NIHR as research projects
d) completed as research projects that formed the evidence base
2. NIHR-funded research projects (as described above) that were considered as 'new' evidence for the NICE guidelines under review.
3. NICE guidelines recommendations amendments that were informed by NIHR-funded research projects/'new' evidence (as described above).

**Results**
Three examples will be presented at the annual meeting where the evidence cycle was completed. The examples will specifically illustrate where the 'new' evidence was considered by the NICE guidelines review process, and also where it led to guideline amendments.

**Discussion**
Priority-funded research topics can have an impact on guidelines recommendations through appropriate collaboration between guideline developers and research funders. Collaboration is particularly needed to ensure alignment of prioritisation criteria, timescales for funding and guidelines review processes.

**Implications for guideline developers/users**
Collaboration is fundamental to identifying priority-funded research evidence by guideline developers (i.e. topic source) through established arrangements and support from key national research funders.

## Oral Abstract Presentations

### (OR 62) Making Disclosures by Guideline Panelists and Management of Financial Conflicts Rigorous and Transparent

First Author: Robert Kunkle – Senior Manager, Practice Guidelines, American Society of Hematology
Second Author: Adam Cuker
Third Author: Julie Panepinto
Fourth Author: Anita Rajasekhar
Fifth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Sixth Author: Robert M. Plovnick – Director of Quality Improvement, American Society of Hematology

**Background**
To manage financial conflicts, guideline developers collect and review disclosures of interests. Many organizations use forms designed for authors of scientific publications. These forms may inappropriately invite a guideline panelist to judge what is both reportable and conflicting.

**Objectives**
Develop and pilot a form for guideline panelists that collects complete disclosures of financial interests and makes transparent all reviewer judgments about conflicts.

**Methods**
A form was developed and used by 11 reviewers to vet >100 individuals for 11 guideline panels of the American Society of Hematology in 2015 and 2016. Feedback about the utility of the form was obtained informally.

**Results**
Each form was reviewed by two or more reviewers. By annotation, reviewers indicated which declared interests were conflicts and why. Reviewers frequently needed additional information to make judgments. This was obtained by email and incorporated into the annotations. Publication of the forms is pending.

**Discussion**
To achieve the above objectives, a form should (1) instruct individuals to report financial "interests" not "conflicts"; (2) use a combination of specific and open questions; (3) allow annotation; (4) allow for updates; and (5) for transparency, be published as is. When managing nonfinancial conflicts, it may be unavoidable for guideline panelists to decide what is reportable and therefore participate in judgments about what is conflicting.

**Implications for guideline developers/users**
Attention to the above recommendations can ensure design of a form that collects complete information and makes decision-making by reviewers about how to manage conflicts transparent.

## Oral Abstract Presentations

### (OR 63) Review of Teaching Strategies and Existing CPG Courses for Effective Training in CPG Development Approaches

First Author: Janine Margarita R. Dizon – Post-doctoral fellow, Centre for Evidence-Based Health Care, Stellenbosch University
Second Author: Eleanor Ochodo
Third Author: Taryn Young
Fourth Author: Quinette Louw
Fifth Author: Shingai Machingaidze
Sixth Author: Tamara Kredo
Seventh Author: Karen Grimmer – Director, International Centre for Allied Health Evidence, University of South Australia

**Background**
Over the last 15 years, there has been increasing activity globally in Clinical Practice Guideline (CPG) activities.

**Objectives**
In order to develop a comprehensive training program for clinical practice guidelines (CPGs) in South Africa, we reviewed existing CPG courses and teaching and learning strategies internationally to establish best practice methods in conducting CPG training.

**Methods**
We conducted a systematic review of the literature that evaluates teaching and learning strategies for teaching guideline teams (1); and a document review of existing CPG courses offered by guideline groups, universities and professional groups (2). We reported the course description, objectives, contents, teaching and learning strategies, format, duration, outcomes and evaluation used in the documents.

**Results**
We found no eligible studies for our systematic review of teaching and learning strategies. For our document review, we found a total of six (6) CPG courses - four (4) from universities and two (2) from professional groups. CPG courses are delivered either as a full courses or as short courses and commonly include topics on developing de novo CPGs. Most courses are delivered face-to-face and blended with other strategies such as online teaching and group discussions.

**Discussion**
CPGs are integral in improving quality and safety in healthcare and health service delivery. Adequate training needs to be provided to CPG developers, clinicians and stakeholders. However, there is currently no standard approach in developing and conducting CPG courses.

**Implications for guideline developers/users**
Guideline developers and users should explore other CPG development approaches and be trained in these methods.

## Oral Abstract Presentations

### (OR 64) Reporting Items for Practice Guidelines in Healthcare (RIGHT)

First Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Second Author: Kehu Yang
Third Author: Susan L. Norris, MD, MPH, MS – The World Health Organization

**Background**
The reporting quality of practice guidelines is often poor. There is no widely accepted guidance and there are no standards for the reporting healthcare guidelines.

**Objectives**
To develop essential reporting items for guidelines in healthcare to ensure the comprehensive and transparent reporting of such guidelines.

**Methods**
Systematic reviews and Modified Delphi process are used to identify and select reporting items.

**Results**
An international working group (the RIGHT working group) has been set up. We developed a checklist for guideline developers, as well as an explanation and elaboration document. The RIGHT Statement is a checklist of 22 items that we consider essential for good reporting of practice guidelines (Table 1). These items encompass basic information (item 1-4), background (items 5-9), evidence (items 10–12), recommendations (items 13–15), independent reviews (items 16–17), funding and declaration of conflicts of interest (items 18–19) and other information (item 20-22).

**Discussion**
Next steps include development of a knowledge translation strategy, developing an explanatory document and evaluating the impact of the reporting guideline.

**Implications for guideline developers/users**
Clear, transparent, structured and sufficiently detailed guidelines are critical not only for guidelines developers but for users. Failure to report important information about methods, conflicts of interest, context, and rationale, may lead to difficulty evaluating, interpreting and implementing guidelines. We recommend that guideline developers and users support and endorse the standardization of guideline reporting.

## Oral Abstract Presentations

### (OR 65) Live Guideline Surveillance: The Future of Surveillance?

First Author: Emma McFarlane – Technical Adviser
Second Author: Katrina L. Sparrow – Technical Adviser
Third Author: Sarah Willett – Associate Director
Fourth Author: Philip Alderson – Clinical Adviser
Fifth Author: Catherine White
Sixth Author: Andrea Juliana Sanabria – Technical Analyst
Seventh Author: Monica Casey
Eighth Author: Nicola Walsh

**Background**
NICE reviews its clinical guidelines at regular time points to assess if they need to be updated. To ensure guidelines are relevant and current for the NHS, it may be necessary to review high impact evidence sooner.

**Objectives**
To describe the design and implementation of a new process (live guideline surveillance) for reviewing a guideline on publication of key evidence rather than at routine surveillance time points, aiming:

- To publish the findings of a surveillance review as close as possible to the publication of the new research.
- To provide updated guidance within a year of key evidence being published.

**Methods**
Two topic areas, alcohol-use disorders and diabetes, will be used as pathfinder topics to determine the robustness of implementing a surveillance review process based around the publication of key studies.

**Results**
We will present our learning and experience of implementing live guideline surveillance process focusing on:
- The robustness and feasibility of this approach
- Timeframe:
  - Between the publication of a key reference and when it's identified (surveillance outcome).
  - Between the surveillance decision and the update of the guideline recommendations (update outcome).
- Number of recommendations changed as a result of live guidelines approach
- Resource impact

**Discussion**
The implications of implementing a live guidelines surveillance process to inform update decisions will be discussed specifically focusing on how this approach may impact on methods to develop, maintain and evaluate guidelines.

**Implications for guideline developers/users**
This presentation will describe the process of live guidelines surveillance to inform timely guideline updates.

## Oral Abstract Presentations

### (OR 66) Prioritizing PICO Questions Within Guidelines: A New Approach

First Author: Wojtek Wiercioch – McMaster University
Second Author: Robby Nieuwlaat
Third Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University

**Background**
Guideline developers are required to prioritize the most relevant questions for which to formulate recommendations, facing a trade-off between allotted development time and breadth of questions.

**Objectives**
To develop and evaluate a new survey approach for panelists' judgements about the relative importance of potential guideline questions.

**Methods**
We developed a survey with six criteria based on which panelists rated importance of questions using a 9-point scale (1-least important; 9-most important). Each question was rated on overall importance and whether it: commonly arose in practice, had uncertainty in practice, had new research evidence, had practice variation, had important resource consequences, and had not been sufficiently addressed. Panelists were randomized to rate the first question on overall importance only, then to rate the 6 criteria and overall importance.

**Results**
Surveys were completed by 104 panelists from 10 panels, rating 436 total questions. The mean overall importance rating across questions was 5.9, with mean ratings for the 6 criteria ranging from 3.4 to 7.0. Panelists randomized to first rate overall importance only (n=44) assigned higher ratings (mean 6.6, SD 2.5) compared to panelists first rating the 6 criteria (mean 6.0, SD 2.4). Of the 44 panelists first rating overall importance only, 23 changed their rating after also rating the 6 criteria.

**Discussion**
The approach developed assisted panelists with discriminating between potential questions for inclusion. Additional information from criteria informing the importance of questions can also facilitate panel decision making.

**Implications for guideline developers/users**
A structured approach for prioritization can assist developers challenged with narrowing down lengthy lists of potentially relevant questions.

## Oral Abstract Presentations

### (OR 67) Use of Text-mining Tools for Systematic Reviews

Fourth Author: Eileen G. Erinoff, MSLIS – Director, HTA/EPC Information Center, ECRI Institute
First Author: Robin A. Paynter, MLIS – SRC Librarian
Second Author: Lionel L. Banez, MD – Medical Officer, AHRQ
Third Author: Elise Berliner, PhD – Director, Health Technology Assessment, AHRQ
Fifth Author: Jennifer M. Lege Matsuura, MSLIS – Information Specialist, ECRI Institute
Sixth Author: Shannon Potter, MLIS – Project Manager, Vanderbilit Evidence-based Practice Center

**Background**
High quality systematic reviews are critical to guideline development but are time intensive and expensive to conduct.

**Objectives**
To provide a preliminary review of text-mining tools as an emerging methodology to support systematic review processes.

**Methods**
We conducted a literature search, interviewed Key Informants and subsequently analyzed the results. Lastly, we compiled a list of text-mining tools to support systematic review methods and evaluated the tools using an informal descriptive appraisal tool.

**Results**
The literature review identified 670 articles, 122 of which met inclusion criteria. Support for the use of text mining was strong amongst the Key Informants overall, though most noted performance caveats or areas requiring further research. We describe 111 text-mining tools identified from the literature review and KI interviews.

**Discussion**
The literature-base is growing, although likely not as quickly as ongoing innovation. Additional research is needed to address the reliability, validity, and practicality of these emerging technologies in the context of the systematic literature review.

**Implications for guideline developers/users**
Text-mining tools are currently being used in a wide range of applications, including support for systematic review searching, screening, appraisal, and synthesis.

## Oral Abstract Presentations

### (OR 68) Creating Patient-centered Guidelines by Giving Patients a Voice in Development

First Author: Kaitlyn S. Sevarino – Evidence-Based Quality and Value Coordinator, American Academy of Orthopaedic Surgeons

**Background**
Beginning in 2013, patients became involved in AAOS clinical practice guideline (CPG) development.

**Objectives**
Promote an approach that gives patients a voice in CPGs to guide guideline recommendations and patient treatment as well as identify areas important to patients that are in need of future research.

**Methods**
The patient perspective was incorporated into the CPG development process in two ways. First, patients were surveyed to gather topics for consideration in the CPG. These topics were presented to the workgroup chairs prior to the introductory meeting for consideration and inclusion in the research questions developed with the workgroup. Research question formation was also changed to using the PICO (population, intervention, comparison, outcome) question format, which puts the patients, or population, at the forefront of the literature search.

**Results**
Comparison of the frequencies in recommendations prior to and following patient involvement showed: pain management recommendations increased from 2% to 14% and risk factors from 6% to 24%. Recommendations actionable by the orthopaedic surgeon decreased from 74% to 62%, by an alternate healthcare professional increased from 6% to 13%, and by the patient him/herself from 6% to 7%. Recommendations not actionable by the surgeon also increased from 9% to 38%.

**Discussion**
Patient involvement in research question formation impacts the directionality of the guideline by offering the patient perspective. Recommendations are more likely to include risk factors, pain management, and be actionable by individuals other than the surgeon.

**Implications for guideline developers/users**
The involvement of patients in CPG development creates more patient-centered recommendations and offers insight into future research needs.

## Oral Abstract Presentations

### (OR 69) Accelerated Guideline Development Working Group: Developing the AGD Methods Manual

First Author: Sophie Blanchard musset – Project manager Office of guidelines development, HAUTE AUTORITÉ DE SANTE
Second Author: Joan Vlayen ...
Third Author: Tracy Merlin
Fourth Author: Carlos Canelo-Aybar
Fifth Author: Pascale Jonckheer
Sixth Author: Michel Laurence – Head of Guidelines Departement, Haute Autorité de santé

**Background**
There has been increasing demand from policy makers to have rapid access to evidence-based decision support. In this context, a GIN Accelerated Guideline Development Working Group (AGD)-WG was established to propose a method to develop guidelines in an accelerated way

**Objectives**
To develop an AGD manual

**Methods**
A questionnaire derived from a literature review on rapid products and experiences of GIN members in producing rapid guidelines, was performed and results discussed at a workshop

**Results**
We identified the main elements of the AGD process and defined an AGD method to be evaluated. The questionnaire included 13 items on general AGD characteristics and 39 items on methods for different phases of guideline development. 40 GIN members responded, with scores provided on a 9-point Likert scale. The data were categorized as follows: majority agree with proposal 66%, majority agree but some also undecided 23%, controversial topic 11%, majority undecided or disagree 0%. The results were discussed during a GIN workshop and the findings were used to modify the first draft of the AGD manual

**Discussion**
Views of the GIN membership have been canvassed to inform the first and second drafts of an AGD methods manual. The next phase involves collecting GIN member experiences in practically applying the advice in the AGD manual

**Implications for guideline developers/users**
Innovative and standardised approaches are needed to ensure that rapid guideline products maintain scientific rigor despite restricted time to produce them. The aim of the ADG manual is to guide GIN members in how to develop rapid products that have trustworthy findings

## Oral Abstract Presentations

### (OR 70) Contextualization and Implementation of CPGs for Stroke Rehabilitation in a Developing Country Part 1

First Author: Karen Grimmer – Director, International Centre for Allied Health Evidence, University of South Australia
Second Author: Consuelo G. Suarez – Consultant, Apolinario Mabini Rehabilitation Center, University of Santo Tomas Hospital
Third Author: Carolina M. Valdecanas – Consultant, St Luke's Medical Center
Fourth Author: Janine Margarita R. Dizon – Post-doctoral fellow, Centre for Evidence-Based Health Care, Stellenbosch University

**Background**
Developing countries have limited resources and expertise in developing new and locally relevant clinical practice guidelines (CPGs).

**Objectives**
We conducted an innovative guideline development approach to adopt current good quality international CPGs in stroke rehabilitation and mapped the local needs in a developing country setting such as the Philippines.

**Methods**
We developed a typical patient pathway for stroke rehabilitation management in the Philippines and identified areas needing guidance in practice. We then searched, appraised and contextualized current good quality CPGs in stroke rehabilitation management mapped with areas needing guidance identified in the patient pathway and to our local context needs.

**Results**
We found nine CPGs relevant to our needs. We extracted the recommendations that provided guidance in the gaps identified in the patient pathway. We developed context points that addressed the generalizability and applicability of the recommendations to our local setting needs. The context points also allowed us to set up the implementation plan particularly for key recommendations (those with strong evidence and strongly recommended).

**Discussion**
We did not waste our limited resources in developing new guidelines but rather we invested our time and efforts in taking stock of current good quality CPGs and focusing on guideline methods called 'contextualization'.

**Implications for guideline developers/users**
With the contextualized CPGs for stroke rehabilitation management, we were able to focus and plan for implementation more efficiently.

## Oral Abstract Presentations

### (OR 71) Tango: Lessons Learned from a Project About Authoring and Integration of Digitally Structured National Guidelines

First Author: Linn Brandt – MD, internal Medicine, Internal medical dept., Gjøvik Hospital, Inland HF, Norway, and HELSAM, Medical faculty, University of Oslo, Norway
Second Author: Per Olav Vandvik, MD, PhD – Associate Professor, Faculty of Medicine, University of Oslo

**Background**
The Norwegian Directorate of Health decided in 2014 to move to writing structured electronic guidelines, instead of their simple html and PDFs, to harvest the possibilities of semantic web technology, easier updating, targeted search, data-sharing and to enable secondary uses. Through the research and innovation project TANGO (2015 to April 2016), they used a structured electronic guideline-authoring platform MAGICapp, to create guideline content

**Objectives**
Address issues and success factors related to authoring and integration of structured electronic guidelines in an extensive national health platform.

**Methods**
Issues experienced throughout the project has been collected, categorized and analyzed to find useful lessons learned that are generable to other organizations and tools.

**Results**
Creating structured electronic guidelines brings along new issues while solving others. The writing process and style guides needed to be adjusted in order to reflect the different nature of structured content. Among the success-factors of moving to a more structured platform were some technological factors, but also the non-technological factors user-involvement and readily available human help. We will present lessons learned with real examples.

**Discussion**
Creating structured electronic guidelines have different qualities from a document-centric process, and the support functions, process and style guides in an organization should reflect that.

**Implications for guideline developers/users**
Learning from other's experience when moving from simple html and PDFs to structured electronic guidelines might help improve the process when organizations embark on this journey themselves. Collaboration between organizations and sharing of support material could make the transition easier for organizations just starting this work.

## Oral Abstract Presentations

### (OR 72) Network Meta-analysis for Clinical Practice Guidelines - Case Study on Medications for Primary Open-Angle Glaucoma

First Author: Benjamin Rouse
Second Author: Tianjing Li

**Background**
Clinical practice guideline developers, including the National Institute for Health and Clinical Excellence and the Endocrine Society, have begun using network meta-analysis (NMA), which compares multiple treatment options for the same condition, to inform guideline recommendations. NMA may facilitate the development of evidence-based recommendations.

**Objectives**
To compare treatment recommendations for first-line medical therapy for primary open angle-glaucoma (POAG) from major updates of American Academy of Ophthalmology (AAO) guidelines with the evidence available at the time, using NMA.

**Methods**
We searched all versions of the AAO POAG guidelines and extracted recommendations relevant to first-line medical therapy. We identified randomized controlled trials (RCTs) from our previous systematic review and examined 3-month mean intraocular pressure data. We used NMA to determine which drugs appeared to "work best" based on RCT data available for each update.

**Results**
We identified nine versions of AAO's guideline for POAG published between 1989 and 2010 and group them into five sets based on search dates. The latest guideline recommended prostaglandins as initial treatment, while previous sets made no specific recommendation. NMAs showed that all drugs are superior to placebo and each update may have been able to recommend a specific treatment.

**Discussion**
For timely recommendations when multiple treatment options are available, guidelines developers should consider NMA.

**Implications for guideline developers/users**
Developers seeking to conduct or use NMA should collaborate with statisticians and methodologists who understand the methods from the outset. NMA treatment networks should be carefully defined and represent available options in clinical practice. Developers should interpret findings based on limited data carefully.

## Oral Abstract Presentations

### (OR 73) Benefit-Harm Analysis and Charts for Individualized and Preference-Sensitive Prevention

First Author: Cynthia Boyd
Second Author: Tsung Yu
Third Author: Helene Aschmann
Fourth Author: Ravi Varadhan
Fifth Author: Sonal Singh
Sixth Author: Milo Puhan

**Background**
Guidelines commonly provide recommendations for populations but not for individuals.

**Objectives**
Our aim was to conduct benefit-harm analyses for a wide range of individuals using the example of low dose aspirin for primary prevention of cardiovascular disease and cancer and develop Benefit-Harm Charts showing overall benefit-harm balance for individuals.

**Methods**
We used quantitative benefit-harm modeling that included 16 outcomes to estimate the probability that low dose aspirin provides more benefits than harms for men and women between 45 and 84 years of age and without a previous myocardial infarction, severe ischemic stroke, or cancer. We repeated the quantitative benefit-harm modeling for different combinations of age, sex, and outcome risks for severe ischemic and hemorrhagic stroke, myocardial infarction, cancers, and severe gastrointestinal bleeds. The analyses considered weights for outcomes, statistical uncertainty of the effects of aspirin, and death as a competing risk. We constructed Benefit-Harm Charts showing the benefit-harm balance for different combinations of outcome risks.

**Results**
The Benefit-Harm Charts (http://www.benefit-harm-balance.com ) show that the benefit-harm balance differs across a primary prevention population. Low dose aspirin is likely to provide more benefits than harms in men, elderly people, and those at low risk for severe gastrointestinal bleeds, but is more likely harmful or equivocal in others.

**Discussion**
Benefit-Harm Charts support individualized benefit-harm assessments and decision making, allow changing the preferences of individuals, and demonstrate that a single probability message may be misleading.

**Implications for guideline developers/users**
Individualized benefit-harm assessments may allow guideline developers to issue more finely granulated recommendations that reduce the risk of over- and underuse of interventions.

## Oral Abstract Presentations

### (OR 74) BMJ Best Practice: Patient Group Characteristics and Stratified Treatment in a Point-of-Care Physician Tool

First Author: Sheila Feit – Senior U.S. Clinical Lead, BMJ

**Background**
Point-of-care physician tools and guidance usually describe a range of treatments that are in turn applied to particular patient groups and subgroups. BMJ Best Practice, a point-of-care physician tool launched in 2009, inverted this convention to customize treatments to specific patient groups and subgroups, tailored to each condition.

**Objectives**
A unique algorithmic patient group format was created and developed at the product design stage. Each set of treatments for about 800 conditions was then produced and updated using this two-tier structure.

**Methods**
The necessary technical capabilities were developed in tandem with clinical/editorial content creation in order to facilitate bespoke displays. Each topic's treatment details were thus custom-built according to applicable pertinent patient-group features.

**Results**
Stratification and individualization of treatments for a variety of conditions were facilitated by the unique treatment section structure.

**Discussion**
In one example, conditions with multiple first-line treatments, such as Graves' disease or prostate cancer, could be formatted to allow for display, expansion, and explanation of three parallel treatment options per topic. Alternatively, topics with seemingly usually limited treatment options (such as syphilis: penicillin) could be presented in granular algorithms, accounting for factors such as stage of disease, pregnancy and/or presence of allergy.

**Implications for guideline developers/users**
Incorporating the characteristics of specific patient groups and subgroups when describing and displaying treatments at the point of care may help to encourage physicians to adapt recommendations to individual patient characteristics, to present a range of relevant options to patients, and to tailor therapies according to individuals' values and preferences.

## Oral Abstract Presentations

### (OR 75) Supporting Patient-Centred Application of Nice Guidelines Through Patient Decision Aids (PDAs)

First Author: Andy Hutchinson
Second Author: Louise Bate
Third Author: Victoria Thomas – Head of Public Involvement, National Institute for Health and Care Excellence (NICE)

**Background**
NICE has produced PDAs to support implementation of three of its clinical guidelines in ways that take full account of individual people's preferences and values.

**Objectives**
To develop PDAs for NICE guidelines relating to anticoagulants in atrial fibrillation, statins for primary prevention, and glycaemic control in type 2 diabetes.

**Methods**
The PDAs were developed in line with International Patient Decision Aids Standards (IPDAS) criteria. Each PDA's development was overseen by an expert steering group of clinicians, patients and PDA experts. We used the guideline evidence review but sometimes additional evidence was needed. For the atrial fibrillation and statins PDAs visual representations of absolute benefits and harms were presented; this was not possible for the diabetes PDA. The PDAs were published simultaneously with the relevant guideline or shortly afterwards. They have been promoted and explained through the NICE's medicines and prescribing community of practice.

**Results**
The PDAs have been widely used and incorporated into local care pathways.

**Discussion**
In preparing the PDAs it became apparent that the necessary information was not always included in the guideline evidence review or sometimes not easily located within it. Healthcare professionals needed training and explanation of the PDAs to optimise their uptake and use.

**Implications for guideline developers/users**
Developers need to 'start with the end in mind' and ensure that evidence needed for preference-sensitive decisions is considered early in the guideline process. Support for implementation of PDAs is as important as for the guideline itself.

## Oral Abstract Presentations

### (OR 76) Extended Strategies for Declaration of Interests and Management of Conflicts in Scientific Conferences

First Author: Reinhard Griebenow – Assistant Medical Director, Department for cardiology, angiology and diabetology, Kliniken Koeln gGmbH
Second Author: Craig Campbell
Third Author: Jennifer Gordon
Fourth Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians
Fifth Author: Sean Hayes
Sixth Author: Lampros Michalis
Seventh Author: Heinz Weber
Eighth Author: Eugene Pozniak
Ninth Author: Robert D. Schaefer – CEO, European Board for the Accreditation in Cardiology

**Background**
There are significant variations in disclosing procedures at scientific conferences.

**Objectives**
Disclosing conflicts of interest (COI) is crucial for disclosure of potential sources of bias to participants. All presenters and Scientific Program Committee (SPC) members must make available their COI to participants to enhance trustworthiness of the content of a conference.

**Methods**
As a follow-up of the Cologne Consensus Conference 2014, we proposed a formula for a minimum standard, non-confidential declaration of interests including payments received by category of funding source (i.e. 1. research, 2. honoraria for CME, 3. payment for activities like speakers' bureau etc., 4. patent holder, shareholder etc.) using a structured closed question template.

**Results**
We consider the:
- name of company/organisation
- amount of money received; and any
- additional non-financial interests as specified by SPC

as core elements of a COI declaration. Presenters are required to disclose all confidential information to SPC. These COI should be made available to participants in a sustainable format to avoid information overload. This will usually need to be agreed on by presenters to comply with privacy protection regulations.

Management of COI beyond transparency with participants may require the SPC members to:
- adjust the focus or topic
- completing a full review of content to be presented
- or withdrawal of speaker

**Discussion**
SPCs should make the criteria for and results of their assessments available to participants.

**Implications for guideline developers/users**
Withdrawal of presenters/authors should in particular be considered, if the risk for bias is high and cannot be resolved by the above options and /or interaction between participants and faculty members.

## Oral Abstract Presentations

### (OR 77) Qualitative Evaluation of Public Involvement on the American College of Physicians Clinical Guidelines Committee

First Author: Kate Carroll – Clinical Policy Associate, American College of Physicians
Second Author: Melissa Starkey – Senior Clinical Associate, ACP
Third Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians

**Background**
Recent new standards from the Institute of Medicine and Guidelines International Network have called for the inclusion of patient preferences in the development of clinical practice guidelines (CPGs). The American College of Physicians (ACP) developed and piloted a program for public involvement. This program consists of two full-time CPG committee members in addition to a public workgroup that reviews CPG documents during development.

**Objectives**
To identify and describe the stakeholder attitudes and beliefs involved in the implementation of the ACP Clinical Guidelines Committee public involvement program.

**Methods**
We employed qualitative methods, including semi-structured interviews and direct observation, to identify stakeholder beliefs and attitudes towards the public involvement program pre- and post-implementation.

**Results**
The results summarize the hopes, concerns, and suggestions pre- and post-implementation from the participating stakeholders, including clinical members of the committee, public members of the committee, members of the public workgroup, and ACP staff.

**Discussion**
ACP's evaluation of its public involvement program provides insight into the strengths and weaknesses of its execution, including the recruitment, training, and implementation.

**Implications for guideline developers/users**
The results of the evaluation enhance a limited body of evidence around the inclusion of public preference into CPG development. Best practices and lessons learned act as guidance for other guideline developers seeking to incorporate patient preference into their methodology.

## Oral Abstract Presentations

### (OR 78) Time to Consider Preferences More Explicitly with Benefit Harm Assessments to Inform Personalized Decision Making

First Author: Milo Puhan
Second Author: Tsung Yu
Third Author: Helene Aschmann
Fourth Author: Sonal Singh
Fifth Author: Ravi Varadhan
Sixth Author: Cynthia Boyd

**Background**
Many decisions in Medicine are preference-sensitive and preferences can have a large impact on the benefit harm balance of medical interventions. Yet, guideline developments focus much on treatment effects for different outcomes but consider patient preferences only implicitly.

**Objectives**
To illustrate the impact of the three key drivers, i.e. treatment effects, outcome risks and preferences, on the benefit harm balance.

**Methods**
We used a recent quantitative benefit harm analysis on low dose aspirin (compared to no aspirin) for primary prevention of cardiovascular disease and cancer that considered various patient-important outcomes and competing risks. We varied treatment effects from randomized trials, outcome risks for different subgroups and outcome preferences to show how much the benefit harm balance of low dose aspirin is affected.

**Results**
Varying relative treatment effects had relatively little effect on the benefit harm balance whereas different outcome risks across subgroups (e.g. according to age) impacted more on the benefit harm balance. Varying preferences (e.g. major gastrointestinal bleeds vs. cancer vs. cardiovascular events) had very substantial effects on the benefit harm balance of low dose aspirin.

**Discussion**
Patient preferences can have a large impact on the overall benefit harm balance but this may not be obvious without performing quantitative benefit harm assessments.

**Implications for guideline developers/users**
Guideline developers should do quantitative benefit harm assessments more often since it supports the decision to frame a weak or strong recommendation for or against an intervention or to recommend the use of decision aids to support personal and preference-sensitive decision making.

## Poster Presentations A

### (PO A-01) Comparison, Contrast, and Evidence Base of Opioid and Chronic Pain Guidelines

First Author: Jeffrey Harris – Senior Physician, The Permanente Medical Group
Second Author: Ulrike Ott – Research Analyst, Rocky Mountain Center for Occupational and Environmental Health
Third Author: Matt Thiese
Fourth Author: Matt Willis

**Background**
We are experiencing sharp increases in opioid prescription, accompanied by a parallel increase in adverse effects, overdoses and deaths from these opioids and related drugs. A number of organizations have created guidelines for more appropriate treatment of pain, supported by varying degrees of evidence, logic and common sense.

**Objectives**
To compare, contrast and assess recommendations for opioid use for pain in guidelines issued by a number of professional and government organizations.

**Methods**
We abstracted recommendations by type and indication from the above guidelines and performed side-by-side comparisons for content, grade of recommendation and evidentiary support.

**Results**
Many guidelines contained similar recommendations for management of opioid use, with varying grading of evidence when it existed. Indications for use were generally subjective rather than criterion-based. Implementation was rarely discussed; metrics were similarly neglected

**Discussion**
Clinicians have asked for guidance about the use of opioids, due to the absence of the topic in training, and to manage requests from misinformed patients. Recommendations were generally similar, but indications were often unclearly stated. Evidence was graded inconsistently. Many recommendations were perforce consensus due to the paucity of the evidence base. Nonetheless, guidelines can be an important tool in addressing this public health emergency, if implemented effectively.

**Implications for guideline developers/users**
Guidelines would be most useful for clinicians if recommendations were made as explicit and as conservative as possible given the high risk of harm, lack of evidence of effectiveness, and the subjective nature of pain complaints.

## Poster Presentations A

### (PO A-02) Developing National Guidelines on Systems and Processes for Medicines Use and Practice: An Overview

First Author: Louise Picton – Senior Medicines Adviser, Pharmacist
Second Author: Gregory M. Moran – Medicines adviser, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Third Author: Johanna Hulme – Associate Director, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Fourth Author: Shelly Patel – Medicines Adviser, NICE
Fifth Author: Judith Thornton – Associate Director, Medicines Evidence and Advice, NICE Medicines and prescribing programme, National Institute for Health and Care Excellence

**Background**
NICE Medicines Practice Guidelines (MPGs) provide recommendations about good practice for the systems and processes for the safe and effective use of medicines. The audience includes individuals and organisations across health and social care involved in prescribing, supplying, governance, commissioning or decision-making about medicines.

**Objectives**
To describe the process and challenges of developing MPGs.

**Methods**
MPGs are developed following the standard NICE methods manual used for all guidelines. A guideline committee is recruited consisting of health and social care professionals, key stakeholders (including regulatory bodies), patients and carers and academics. The most relevant evidence is identified but few studies meet the inclusion criteria and they are usually low quality. Complex legislation, regulation and policy documents must be included as well as professional guidance; there are no recognised methods of appraising quality. Expert knowledge of the committee and consensus is used to address gaps in the evidence. A 'call for evidence' is undertaken where this is not possible where service commissioners and providers provide information on current practice.

**Results**
MPGs developed to date include managing medicines in care homes, medicines optimisation, antimicrobial stewardship, and controlled drugs.

**Discussion**
MPGs need to identify and evaluate a range of evidence not normally included in clinical guidelines. Expertise of the development team and committee in medicines use and practice is essential.

**Implications for guideline developers/users**
When developing guidelines to address systems and processes, developers should consider how to review a range of different types of evidence.

## Poster Presentations A

### (PO A-03) Service Delivery Guidance – Approaches and Challenges

First Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Second Author: Toni Tan – Senior Technical Adviser, Centre for Clinical Practice, NICE
Third Author: Peter O'Neill – Senior Technical Adviser, Public Health and Social Care Centre, NICE
Fourth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Guidelines are increasingly tackling broader issues around service delivery (SD) – for example, how should hospital services be organised to deliver 7-day working, or how should services be co-ordinated to provide care for people with learning disabilities and challenging behaviour? Methods for systematic reviews and evidence synthesis (SR&ES) are lacking and questions remain around best practice for their use in SD guidelines.

**Objectives**
• present results of a scoping review from a wide range of topic areas and disciplines
• describe challenges of SR&ES in SD guidelines
• provide best practice advice for SR&ES on SD
• outline areas for methodological development

**Methods**
We reviewed a purposive sample of published SR&ES to identify areas of methodological similarity and difference. We surveyed guideline developers on the use of SR&ES in SD guideline development (planned for mid 2016). Key themes were extracted and summarised.

**Results**
There are challenges in SR&ES for SD – including definitions of type of evidence, sources of evidence, quality assessment, and interpretation of evidence. Many areas focus on complex interventions and complex systems, meaning that standard approaches for intervention reviews may not be entirely appropriate.

**Discussion**
SD can be a challenging area for SR&ES in guideline development. There are some areas where standard approaches can be used; however, consideration should also be given to exploring approaches from other disciplines, such as management science.

**Implications for guideline developers/users**
SR&ES for SD guidelines is complex; guideline developers should consider early in development if novel approaches are needed to provide meaningful evidence for decision makers.

## Poster Presentations A

### (PO A-04) Economics in Guidelines – Where's K-WALLY**? **QALY

First Author: Lesley Owen – Technical Adviser - Health Economics, Public Health and Social Care Centre, NICE
Second Author: Sarah Richards – Technical Analyst - Health Economics, Public Health and Social Care Centre, NICE
Third Author: Alastair Fischer – Office of Health Economics
Fourth Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Fifth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Economic analysis helps guideline committees make recommendations on interventions informed by cost-effectiveness evidence – that is, to ensure interventions provide value for money in systems with a finite budget. In one national programme, the preferred method for assessing cost effectiveness is cost utility analysis (CUA), using the quality adjusted life year (QALY). However, there are circumstances where the use of CUA and QALYs are not appropriate or not possible.

**Objectives**
• describe a series of economic analyses used to develop guideline recommendations
• explain why CUA was not used
• outline the advantages of the alternative approaches, along with any limitations.

**Methods**
We selected economic analyses from published guidelines in public health and social care. An example from economic approaches, as defined in the guidelines manual, was chosen and summarised. This includes
• cost-effectiveness analysis.
• cost–consequences analysis.
• cost–benefit analysis.
• cost-minimisation analysis.

**Results**
Different approaches are used to support guideline recommendations – with related strengths and limitations – in a range of topic areas and contexts. Use of different approaches is particularly key for public health and social care, and within these, areas such as service delivery.

**Discussion**
The option to use different economic approaches helps recommendations informed by cost-effectiveness evidence to be made in a range of situations, ensuring costs incurred to the system are 'value for money'.

**Implications for guideline developers/users**
Guideline developers should consider the most appropriate approach to assessing cost-effectiveness when scoping. Guideline committees should be aware of strengths and limitations of each approach when using cost-effectiveness to inform recommendations.

## Poster Presentations A

### (PO A-05) Search for Clinically and Economically Effective Approaches to Lymphomas Treatment

First Author: Olena Lishchyshyna – Head of the Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine
Second Author: Levgeniia Rubtsova – Expert, Medical Care Standardization Board, State Expert Centre of the Ministry of Health of Ukraine
Third Author: Olena Shilkina – Head of the Department of Methodological Support of New Technologies in Healthcare, The State Expert Center of the Ministry of Health of Ukraine

**Background**
There is an acute problem concerning lymphoma treatment in Ukraine. Previously, due to unavailability of up-to-date chemotherapy (CT) regimes, only 20% of lymphoma patients had a chance for persistent remission after the treatment, 40-60% of patients had response to treatment and only 35% of patients had 5-year survival rates.

**Objectives**
Creation of modern clinical protocols of therapy in lymphoma patients taking into account world's experience.

**Methods**
Clinical Practice Guidelines for the Diagnosis and Management of Lymphoma. A National Health and Medical Research Council' was chosen by the working group as one of key prototypes of the best medical practice in lymphoma patients on evidence-based medicine. The working group has conducted an additional search for original sources of scientific information in order to justify the choice of CT. The results of search were presented as evidence tables according to the efficacy of various CT regimes.

**Results**
Clinical protocols in lymphoma patients with taking into account the obtained data have been developed. They included medical technologies with proven efficacy.

**Discussion**
It should be noted that some of the CT schemes with sufficient efficacy in clinical trials include bortezomib, vinorelbine, gemcitabine, carboplatin, cisplatin. These agents are not licensed for lymphoma, that results in impossibility to prescribe such regimes to patients. However, the up-to-date CT regimes allow achieving better results.

**Implications for guideline developers/users**
Introduction of modern approaches to the treatment of lymphomas in Ukraine and harmonization of Ukrainian and world's practices will provide comprehensive and effective medical care for patients.

## Poster Presentations A

### (PO A-06) The performance of management Bundles and widely implementation of JPN Guidelines of Acute Pancreatitis in Japan

First Author: Masahiro Yoshida – Prof. of Surgery, Chief Researcher, Minds Guideline Center, Int. Univ. of Health and Welfare Japan, Japan Council for Quality Health Care
Second Author: Tadahiro Takada – Professor of Surgery, Teikyo University School of Medicine, Japan
Third Author: Toshihiko Mayumi – Professor of Emergency Medicine, University of Occupational and Environmental Health, Japan
Fourth Author: Yuichi Imanaka – Professor and Director, Minds Guidelines center, Japan council for Quality Healthcare
Fifth Author: Naohito Yamaguchi – Professer and Director, MInds guideline center, Japan council for Quality Healthcare

**Background**
The management bundles are designed to be easily achievable and sustainable both to implement and to audit. Five years before, JPN Guidelines for the management of acute pancreatitis (JPN Guidelines) 2010 with management bundles were published. The clinical managements in acute pancreatitis have been markedly developed, JPN Guidelines working group assessed and revised the JPN guidelines in 2015.

**Objectives**
The objective of this paper is to clarify the effectiveness of JPN Guidelines 2010 bundles and to develop new bundles with mobile application.

**Methods**
1) To assess the effectiveness of the bundles of JPN Guidelines 2010
2) Developing the new bundles of JPN Guidelines 2015
3) To implement widely, we develop a mobile application of the bundles of JPN Guidelines 2015.

**Results**
1) Hirota reported the study of the JPN Guidelines 2010 in 505 severe acute pancreatitis Japanese patients suggested that initial fluid therapy was associated with a significant reduction in the mortality (9.5% vs 19.4%, p=0.028). The patients who meet more than eight statements showed significant lower mortality (7.6% vs 13.7%, p=0.042).

2) Revised bundles of JPN Guidelines 2015 were published.

3) In order to implement widely, we developed a mobile application of JPN Guidelines 2015 with new management bundles.

**Discussion**
The mobile application includes both iOS and Android versions which have excellent portability, possible upgrading at any time, and able to monitor the dissemination of JPN Guidelines 2015. A high rate of implementation of pancreatitis bundles might contribute to improving the mortality of severe acute pancreatitis.

**Implications for guideline developers/users**
Widely implementation is expected by this mobile application development.

## Poster Presentations A

### (PO A-07) Systematic Review: Health care Routes an Instrument of Implementation of Health Care Model

First Author: Angela VIVIANA. Perez – deputy production of clinical practice guidelines, Health Technology Assessment Institute
Second Author: Carolina Castillo
Third Author: Juan Fuentes
Fourth Author: Fabio Sierra
Fifth Author: Paola Avellaneda
Sixth Author: Carlos Pinzon

**Background**
There is heterogeneity in the development and use of health care routes. Currently this tool is part of the health care model of Colombia

**Objectives**
To identify routes development methodologies health care, uses within the health system and applicability in the Comprehensive Health Care Model of Colombia

**Methods**
Systematic review of the literature search electronic databases (Cochrane Library, Embase, Medline and Lilacs) and manual search. Studies that describe methodologies development and use of care were included routes

**Results**
24 studies were included. No common methodology for the development of routes attention is not identified, but there are transversal elements such as the incorporation of scientific evidence, sequencing and identification of the time of each intervention. Regarding the use in health systems, a common factor is its usefulness as a tool to improve the quality of health care and incorporating all levels of care, however incorporating interventions in other sectors is not evidence

**Discussion**
There methodologies for road building health care. However, for the approach of comprehensive health model it is necessary to strengthen and innovate the concept of both conceptual and process integration and display concurrency and sequentiality of the shares of each of the actors in moments of lifetime and health care

**Implications for guideline developers/users**
Health care routes can be an efficient strategy to improve the implementation and adherence to clinical practice guidelines.

## Poster Presentations A

### (PO A-08) De Novo Development, Adoption and Adaptation of CPG, Methodologies, Advantages and Disadvantages

First Author: Angela Viviana Perez – deputy production of clinical practice guidelines, Health Technology Assessment Institute
Second Author: Carolina Castillo
Third Author: Juan Fuentes
Fourth Author: Fabio Sierra
Fifth Author: Paola Avellaneda
Sixth Author: Carlos Pinzon

**Background**
The optimizations of the quality of health care and the reduction of unjustified clinical variability have led to the development of clinical practice guidelines. In low- and middle-income countries as well as de Novo development, it´s been proposed the adoption and adaptation

**Objectives**
Identify the methodologies used by CPG developers groups, their advantages and disadvantages

**Methods**
A systematic review of literature search was conducted in databases (EMBASE, Medline, Cochrane, Lilacs) developers and organizations guides. Studies describing methods and experiences in the development of CPG are included. The selection, extraction and synthesis of information were conducted by two reviewers independently

**Results**
43 documents were reviewed, including 26 manuals for the development of CPG, 38% (10) consider adaptation as a method for developing a CPG, and of these 40% (4) consider the methodology ADAPTE, 20% develop a different methodology for the adaptation process and 40% do not describe the methodology explicitly. Just one manual considers the adoption of CPG. Novo development involves a highly trained human resources, time and financial resources. The ADAPTE methodology has not proven to be more efficient than de novo development. The adoption of CPG does not have a standardized methodology and evaluation process.

**Discussion**
De novo development of methodological CPG is the best option, but it is necessary to identify the resources and needs of each context, and thus define the feasibility of adaptation and adoption

**Implications for guideline developers/users**
The development of clinical practice guidelines is a methodological challenge for those countries of low and middle income, if you want your Safety method ruggedness.

## Poster Presentations A

### (PO A-09) How Could We Facilitate Patient Involvement at HAS?

First Author: Joëlle André-Vert – Project Manager, French National Authority for Health (HAS)
Second Author: Michel Laurence – Head of Guidelines Departement, Haute Autorité de santé

**Background**
French National Authority for Health (HAS) missions include guideline development, health technology assessment (HTA), health economic studies, practitioners certification and accreditation of healthcare organizations and consumer information on quality of care. HAS strategic framework planned to develop more patient-centered approach.

**Objectives**
To describe patient involvement in our institution and identify barriers and facilitators to improve it.

**Methods**
Plan: in 2008, HAS published a framework for cooperation with associations of patients and users allowing project managers to involve patients in committees and working groups with the same status as professionals. Do: since, several departments involved more regularly patients in project development groups. Check: a qualitative and quantitative survey was sent to all scientific project managers (n=147) at HAS. Feedback during department meetings identifies barriers and potential facilitators for patient engagement. Act: several actions will be carried out to support project managers for more patient involvement in HTA or guideline development and healthcare organizations accreditation procedures.

**Results**
In 2015, patients or healthcare users were involved in 78 working groups. 3 more committees include patients. 70 project managers answered the survey and 40 have an experience of patients participating in guideline or HTA development. Patients may be involved from scope to dissemination, but their input is mostly sought during development groups and peer reviewing phase.

**Discussion**
Expected roles of patients vary greatly and need to be clarified for the different HAS activities and settings.

**Implications for guideline developers/users**
Patient involvement is mostly considered to have a useful or major impact, at any phase of HTA or guideline development.

## Poster Presentations A

### (PO A-10) Adaptation. Practical Experience from Nordic Hand Fracture Guideline

First Author: Plia Vuorela – Guideline editor, G-I-N Nordic Chair, Finnish Medical Society Duodecim
Second Author: Ville Mattila – Guideline editor, Finnish Medical Society Duodecim
Third Author: Arvid Videnlou-Nordmark – Chief of unit, National guidelines, The National Board of Health and Welfare, Sweden
Fourth Author: Britta Tendal – Special consultant, Danish Health Authority
Fifth Author: Annette Kristiansen – MAGICapp.org

**Background**
Despite being nearly a decade since the introduction of the ADAPTE framework, practical, concrete examples of guideline adaptation efforts remain elusive. In 2014 Denmark published national guidelines on the treatment of hand fractures. The following year, Norway published its updated guideline, which was to a large extent a translation of the Danish one. In 2015 Finland started updating its guideline, to be published in 2016.

**Objectives**
We sought to map the Finnish guideline working group's (GWG) agreement with the Norwegian recommendations and to analyze any reasons for modifications.

**Methods**
The Finnish GWG evaluated the 10 recommendations and underlying data in the Norwegian guideline.

**Results**
The Finnish working group modified 8 (80%) of the Norwegian recommendations, without changing the evidence base.

**Discussion**
We will present descriptive examples on how different, even contradicting recommendations were drawn. We will elaborate on the reasons and judgment of the different GWGs.

**Implications for guideline developers/users**
National GWG should explicitly evaluate underlying data to recommendations, and might derive different conclusions to fit the national environment.

## Poster Presentations A

### (PO A-11) Health System Evidence: A Database for the Development of Policy Guidance

First Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Second Author: Nan Yang
Third Author: Wei Deng
Fourth Author: Xiaoqing Wang
Fifth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Sixth Author: Kehu Yang

**Background**
As clinical practice guidelines is important for health professionals, policy guidance can guide policy makers and health managers to make evidence-informed decisions. As the most comprehensive international database, Health Systems Evidence (HSE for short) summarizes the high-quality health system researches systematically.

**Objectives**
To introduce the database (especially the Chinese edition), so as to promote its application in the development of policy guidance.

**Methods**
We founded a group to translate and update the database by grading translation system combined with expert consultation and focus group discussion. Also, we disseminated the database in various ways and evaluated its application of HSE by surveying the guidance developers and exploring the policy guidances.

**Results**
HSE contained research evidence about governance, financial and delivery arrangements within health systems, and about implementation strategies that can support change in health systems. Until now, we have translated the first and second version of Chinese edition of HSE in 2011 and 2016 separately. For the titles, we have translated the titles up to 157,975 words. The evaluation results will be presented in the 2016 GIN conference.

**Discussion**
HSE contained incredible amounts of evidence on health system researches and is expected to be used for the development of policy guidance.

**Implications for guideline developers/users**
Health Systems Evidence summarizes the high-quality health system researches comprehensively and systematically, which can provide available best evidence for policy guidance. HSE should become an important database to be searched by guidance developers.

## Poster Presentations A

### (PO A-12) A Survey of Chinese Panelists Involved in the Development of Practice Guidelines

First Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Second Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University
Third Author: Nan Yang
Fourth Author: Wei Deng
Fifth Author: Kehu Yang

**Background**
The balance of disciplines within a guideline development group has considerable influence on the guideline recommendations.

**Objectives**
To investigate the knowledge and experience of Chinese panelists involved in the development of clinical practice guidelines.

**Methods**
We conducted a cross-sectional electronic survey among panelists involved in the development of guidelines in China. The questionnaires were delivered by email and contained information about demographics, knowledge of practice guidelines, and experience in guideline development.

**Results**
We sent a total of 980 questionnaires and received 66 valid questionnaires (response rate 6.7%). Most of the responders were male (76%) and in senior positions (89%). Thirty-nine percent of the respondents received financial support from pharmaceutical companies for the development of the most recent guideline. Thirty-nine percent of the guidelines were developed by a group consisting of 10 to 20 panelists, and none of the groups included patients. Eighty-nine percent of panelists thought the quality of evidence was the most important factor influencing the formulation of recommendations, and 50% claimed lack of high-quality evidence as the biggest challenge of developing trustworthy guidelines.

**Discussion**
Chinese panelists involved in developing guidelines can follow the international process and methods of guideline development in many aspects.

**Implications for guideline developers/users**
To improve the quality and effect of guidelines, guideline developers should refer to guideline handbooks and current methodological literature during the development, implementation, dissemination and evaluation of clinical guidelines.

## Poster Presentations A

### (PO A-13) RAPADAPTE for Rapid High-Quality Guideline Development

First Author: Brian S. Alper – DynaMed Founder; VP Innovations + EBM Development, EBSCO Health
Second Author: Mario Tristan – Director-General & CEO, IHCAI Foundation; Cochrane Central America

**Background**
Guideline development is resource-intensive. A high-quality guideline for breast cancer treatment was developed with limited resources in Costa Rica.

**Objectives**
We derive and revise a methodology for rapid guideline development from this experience.

**Methods**
The ADAPTE method (using existing guidelines to minimize repeating work that has been done) was extended to use databases that systematically identify, appraise, and synthesize evidence (DynaMed, EBM Guidelines). Draft recommendations and supporting evidence were graded and provided to 63 panel members for facilitated voting to target panel discussion to areas necessary for reaching consensus.

**Results**
A 90-recommendation guideline was produced within six months. Comparable guidelines had 39-66 guidelines and took 18-44 months. The Costa Rican guideline had 89%-100% quality ratings across six AGREE II domains with 25 raters. Key factors accelerating guideline development were (1) training guideline panel members in evidence-based healthcare concepts; (2) extending guideline adaptation strategy to evidence databases; and (3) confirming recommendations with panel members using methods providing transparency, efficient recognition of agreement, and reanalysis and dialog targeted to areas of disagreement.

**Discussion**
The RAPADAPTE method provides 12 steps for efficient guideline development: Establish team, Train team, Define questions, Identify guidelines, Select guidelines, Identify summarized evidence, Search for evidence if needed, Grade evidence quality, Draft recommendations, Share draft recommendations, Adjust recommendations, External review. RAPADAPTE is a framework that can be customized for local application.

**Implications for guideline developers/users**
RAPADAPTE is published in 2016. If prospective replication shows guideline development can be accelerated without compromising validity and relevance of the resulting recommendations this will greatly improve the healthcare impact.

## Poster Presentations A

### (PO A-14) Evolution of G-I-N North America E-GAPPS Conferences

First Author: Sandra Zelman Lewis – Chief Guidelines Officer, Doctor Evidence
Second Author: Peter Wyer – Associate Professor of Medicine, Columbia University Medical Center
Third Author: Richard Rosenfeld – Sr. Advisor for Guidelines and Quality, American Academy of Otolaryngology - Head and Neck Surgery Foundation
Fourth Author: Marguerite A. Koster – Senior Manager, Evidence-Based Medicine Services Unit, Kaiser Permanente Southern California
Fifth Author: Thomas S. D. Getchius – Director, Clinical Practice, American Academy of Neurology

**Background**
The 2011 Institute of Medicine (IOM) call for trustworthy guidelines marked a milestone separating an era when guidelines lacking supporting evidence or transparency were frequently created by special-interest forces using informal consensus from a period of intense efforts to upgrade guideline methodological standards and processes.

**Objectives**
The Guidelines International Network North America (GIN/NA) community, recognizing the challenges of the undertaking, initiated a series of Evidence-Based Guidelines Affecting Policy, Practice, and Stakeholders (E-GAPPS) conferences aimed at stimulating dialogue and collaboration across stakeholder groups.

**Methods**
The evolving conference themes and topics reflected guideline developers' and implementers' continued quest for both new and well-accepted practices and methodologies to improve the quality and stakeholder appeal of the final products. The thematic review will be supplemented with numerical documentation of attendance, interest in the various subthemes, and dissemination efforts including an ongoing Webinar series.

**Results**
Numerical attendance and participation levels across events, including expectations for the upcoming conference, will be presented, along with G-I-N membership trends in North America.

**Discussion**
This review will demonstrate continuing educational needs in development methods, implementation, quality improvement, and measuring impact. This multi-tiered concentration meets expectations of both junior- and senior-level professionals and broadens the base to include consumers, systematic reviewers, guideline developers, implementers, quality improvement evaluators, and researchers.

**Implications for guideline developers/users**
Attention to educational expectations and needs remains an emphasis for the E-GAPPS conferences. The series serves as a platform for fostering dialogue and collaboration across guideline-related constituencies. Attendees can expect a combination of basic content and cutting-edge innovations to be showcased.

## Poster Presentations A

### (PO A-15) Implementation of GRADE in the Netherlands

First Author: Ton Kuijpers – Senior scientific staff, Clinical epidemiologist
Second Author: Miranda Langendam
Third Author: Hans de Beer

**Background**
In the Netherlands guideline development organizations have adopted GRADE. A network (now the Dutch GRADE Network) of guideline developers was established 10 years ago. One of the goals of this network is to discuss implementation issues of GRADE. The uniform application of GRADE in the Netherlands is an important goal of the network.

**Objectives**
To assess how and to what extent GRADE is applied in guidelines in the Netherlands and to assess potential barriers of implementation.

**Methods**
We selected 10 recently developed guidelines from 5 large organizations to assess how and to what extent GRADE was applied. We evaluated whether the guidelines fulfilled the minimum criteria for applying GRADE formulated by the GRADE working group. By interviewing a representative from each organization (by using semi-structured interviews) we gathered information about potential barriers of implementation.

**Results**
Preliminary results indicate that the GRADE approach was applied in all guidelines, but substantial variability existed in the extent to which GRADE was applied, including adherence to the minimum criteria. As potential barriers for implementation were identified a partial update of a guideline, mixed levels of training, perceived time constraints and lack of understanding of the GRADE approach.

**Discussion**
We will discuss the reasons why GRADE was not applied in the preferred way according to the minimum criteria of the GRADE Working Group. Potential solutions to improve the uniform application of GRADE in the Netherlands will be discussed.

**Implications for guideline developers/users**
To realize a more uniform application of GRADE in the Netherlands, and to improve readability of guidelines for the end-user.

## Poster Presentations A

### (PO A-16) Development and Evaluation of Web-Based PICO Learning Tool

First Author: Miri Jeong – A Nurse, Chungnam national university hospital

**Background**
Nurses need to find the valid solutions about the clinical problems at the right time with the right questions. The first step of Evidence-Based Practice (EBP) is formulating an answerable question. Asking a well-defined clinical questions can lead to successful EBP guideline implementation.

**Objectives**
The purpose of this study was to develop web-based tool to assist in learning clinical question formation with PICO (Problem, Intervention, Comparison, and Outcome) format and to evaluate the effect of web-based tool on nurses'confidence and knowledge on clinical question formation.

**Methods**
The web based tool for PICO education was developed to tutor nurses in asking clinical questions in PICO format. The tool consisted of three modules presenting the introduction of EBP, teaching the skills to make a PICO, and permitting nurses to share their clinical questions. The participants were assigned to intervention group (n=31) with a web-based tool and to the control group (n=31) with a traditional learning with written material. The participants'confidence and knowledge on making clinical questions were evaluated.

**Results**
The confidence and knowledge were significantly higher in the experimental group than in the control group.

**Discussion**
The findings in this study suggest that the web based PICO learning tool can be an effective tool for nurses. Enhanced competence and knowledge in making the right clinical question can lead to more active participation in evidence based guideline implementation.

**Implications for guideline developers/users**
The clinical question with PICO format is content that is to be essentially acquired to start EBP. Also PICO can apply a range for clinical research or quality improve activity.

## Poster Presentations A

### (PO A-17) Improving the Practice of Updating Guidelines

First Author: Claire Stapon – Project Coordinator, Centre for Effective Practice
Second Author: Kelly Lang-Robertson – Information Research Manager, Centre for Effective Practice
Third Author: Hannah Loshak – Information Specialist, Centre for Effective Practice
Fourth Author: Claudia Warner-Romano – Information Specialist, Centre for Effective Practice
Fifth Author: Apurva Shirodkar – Project Coordinator, Centre for Effective Practice
Sixth Author: Sharmilaa Kandasamy – Project Manager, Centre For Effective Practice
Seventh Author: Jess Rogers – Director, Centre for Effective Practice

**Background**
Guidelines require regular updating to ensure that they are reflective of current research. Due to time and resource constraints, developers often use an abridged process to update guidelines instead of following the original guideline development process. There is a need to ensure that best practices are followed and appropriately documented in guideline updates.

**Objectives**
To evaluate current practices in guideline development update processes, and provide insight into how developers can improve practice.

**Methods**
Between 2014 and 2016, we assessed 472 guidelines on their methodological quality by using the Rigour of Development domain within the AGREE II instrument, in support of a project for the Canadian Partnership Against Cancer.

**Results**
Of guidelines reviewed, 51% failed to appropriately describe a future updating procedure, as measured by a score of < 4 on item 14 of the AGREE II Instrument. Guideline updates can be improved by better reporting of development methodology.

**Discussion**
An appropriate procedure for updating a guideline should be considered at the original guideline development stage, but this information is rarely included. Furthermore, the description of an appropriate updating process needs to be clearly included in the updated guideline.

**Implications for guideline developers/users**
It is important that updated guidelines follow the same rigorous process as newly developed guidelines, but this isn't always the case, or isn't always appropriately described. It is paramount that guideline developers consider and include a clear description of the future update process when developing a new guideline, and that this process is appropriately applied and transparently described during a guideline's update.

## Poster Presentations A

### (PO A-18) Practical Guidance for Using Existing Systematic Reviews in Developing Clinical Practice Guidelines

First Author: Stacey Uhl, MSS – Senior Research Associate, Center for Evidence Reviews; American College of Physicians
Second Author: Fang Sun, MD, PhD – Director, Center for Evidence Reviews, American College of Physicians
Third Author: Farah Sultan, MD – Research Associate, Center for Evidence Reviews, American College of Physicians
Fourth Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians

**Background**
Recently, there has been growing interest in using existing systematic reviews (SRs) as evidence in new SRs or in place of conducting de-novo reviews to inform clinical practice guidelines. Use of existing reviews can reduce the time and resources required to produce de-novo reviews, and prevent duplicative efforts. While some tools (e.g., AMSTAR, ROBIS) have been developed for assessing the risk of bias or the quality of existing SRs, little practical guidance is available for guideline developers to integrate existing SRs into new evidence reviews or use them in place of de-novo reviews.

**Objectives**
To address this gap, the American College of Physician's Center for Evidence Reviews proposes an in-depth framework for using existing SRs that expands on available tools and guidance.

**Methods**
Based on the experience of our group, we provide a framework that details the methods we use to incorporate the findings of existing reviews into our new evidence reviews.

**Results**
The framework lays out a step-by-step decision process to assess the relevance of existing reviews, their methodological quality, the usability of the reported data, and the adaptability of the findings (including the quality-of-evidence grades).

**Discussion**
Our work provides practical and transparent guidance to reviewers and guideline developers on how to use existing reviews to address their evidence needs.

**Implications for guideline developers/users**
The ability to adapt or adopt existing SRs can save guideline developers time and resources.

## Poster Presentations A

### (PO A-19) Patient and Public Involvement in the Process of Development of Clinical Guidelines in Brazil

First Author: Aline SILVEIRA. Silva – Technologist, Brazilian Ministry of Health

**Background**
Many activities are being developed by National Committee for Health Technology Incorporation (CONITEC) to improve the patient and public involvement (PPI) in HTA, especially in development of clinical guidelines.

**Objectives**
To describe CONITEC's strategy of PPI in the development of Clinical Protocols and Therapeutic Guidelines (PCDT) in Brazil.

**Methods**
Analysis of documents from the Brazilian Ministry of Health (MoH).

**Results**
As a strategy for investigating the public's needs and preferences, the performance of surveys related to PCDT was started. The first survey, in June 2015, was regarding the PCDT of Rare Diseases. A total of 1,140 contributions were received: 76 from patient associations, 34 from caretakers, 297 from patients, 253 from patient guardians, 472 classified as other and 8 were not identified. In the same year, a survey on the scope proposal for the preparation of Diagnostic and Therapeutic Guidelines on Poisoning by Pesticides was performed. A total of 38 contributions were received: 25 from healthcare professionals, 12 from people interested and 01 from patient. In 2016, was conducted a survey to receive contributions on the update of all PCDT published in 2012 and 2013. Besides, the new format of PCDT, will always have the participation of patients and specialists in the preparation of the scope.

**Discussion**
Medical associations, society, patients and users had the opportunity of provide information that, in their opinion, should be included in these important clinical guidelines.

**Implications for guideline developers/users**
The compilation of all this information helped the MoH to understand the user's point of view, which usually is disregarded in the HTA.

## Poster Presentations A

### (PO A-20) Previous Public Consultation: Developing Clinical Guidelines with Society Participation

First Author: Tacila Pires. Mega – Technical analyst of social policies, Brazilian Ministry of Health
Second Author: Ana Carolina de Freitas Lopes – Social Policies Analyst, Ministry of Health of Brazil
Third Author: Jorgiany Souza Emerick Ebeidalla – Ministry of Health of Brazil
Fourth Author: Edison Vieira de Melo, Jr. – Ministry of Health of Brazil
Fifth Author: Vania Cristina Canuto Santos – Ministry of Health of Brazil
Sixth Author: Clarice Alegre Petramale – Ministry of Health of Brazil

**Background**
Public consultations on the initial stage of drafting guidelines are a recent instrument provided by the Brazilian Ministry of Health (MoH) to provide greater publicity and transparency to the process.

**Objectives**
To describe the Brazilian experience in providing public consultation prior to development or updating clinical guidelines.

**Methods**
It was available at Brazilian MoH website the Public Consultation with 35 themes of clinical guidelines already published and that will be submitted to the updating process. The questions on the form provided questioned about: quality of these current guidelines, information to consider in updating the document, barriers or facilitators to implementation.

**Results**
The public consultation was available for 46 days at the MoH site and was widely publicized. They were received in total 1024 contributions. Participation was patient and their caregivers, health professionals , pharmaceutical industry, health services, and general interested in the topic. 42% rated the current guidelines as good or very good, 37% fair and 21% as bad or very bad. Among the main topics suggested in the update of the guidelines are: incorporation of new technologies, expansion of the network of care, training of health professionals involved in the care of the disease and multidisciplinary care.

**Discussion**
The strategy makes it possible to identify relevant points about these themes not included in their current versions.

**Implications for guideline developers/users**
The public consultation in the early stages of drafting guidelines can be an important tool to improving the process of development and implementation of clinical guidelines, since it allows greater involvement of all stakeholders.

## Poster Presentations A

### (PO A-21) Evidence-based First Aid Guidelines for Flanders, Belgium

First Author: Veronique Huygelen – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Third Author: Hans Van Remoortel – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Fourth Author: Bert Avau – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Fifth Author: Matthieu Clarysse – Staff member First Aid Department, Belgian Red Cross-Flanders
Sixth Author: Emmy De Buck – Manager Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Seventh Author: Philippe Vandekerckhove – Belgian Red Cross-Flanders; Faculty of Medicine, University of Ghent; Department of Public Health and Primary Care, Faculty of Medicine, KU Leuven

**Background**
As part of its strategy, Belgian Red Cross-Flanders strengthens all its activities using evidence-based guidelines.

**Objectives**
The objective was to develop evidence-based guidelines to train lay people how to manage and prevent emergency situations. Based upon these guidelines an evidence-based first aid handbook for Flanders was developed.

**Methods**
Evidence on effectiveness of various first aid, preventive procedures and risk factors was searched in 3 databases: Medline, Embase and the Cochrane Library between date of inception until search date (March-November 2015). The quality of the scientific evidence was determined according to the GRADE (Grading of Recommendations Assessment, Development and Evaluation) methodology.

**Results**
We developed 319 evidence summaries, including 181 summaries about first aid interventions (such as effective tick removal strategies), 76 were about prevention (such as the use of hand alcohol for prevention of diarrhoea), 6 on a combination of first aid and prevention, 46 about risk factors and 10 about diagnostics. A total of 118716 references were screened and 533 studies were finally included as a basis for the guidelines. The quality of the majority of the evidence was graded low to very low.

**Discussion**
Final evidence-based first aid recommendations were formulated based on the evidence-based conclusions, combined with the preferences of the target population and taking into account expert medical consensus (expert panel including general practitioners and specialists).

**Implications for guideline developers/users**
An evidence-based handbook for first aid was developed and will be used as a guidance for first aid courses provided by Belgian Red Cross-Flanders and can be consulted by anyone with interest in first aid.

## Poster Presentations A

### (PO A-22) Time Registration for the Development of Evidence-Based First Aid Guidelines for Flanders (Belgium)

First Author: Hans Van Remoortel – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Second Author: Vere Borra – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Third Author: Matthieu Clarysse – Staff member First Aid Department, Belgian Red Cross-Flanders
Fourth Author: Axel Vande veegaete – Scientific Coordinator Humanitarian Services, Belgian Red Cross-Flanders
Fifth Author: Emmy De Buck – Manager Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Sixth Author: Philippe Vandekerckhove – CEO, Belgian Red Cross-Flanders

**Background**
In 2015, Belgian Red Cross-Flanders updated its evidence-based first aid guidelines. Effective time tracking is helpful for different reasons including a better project time/cost estimation and an increased productivity, engagement and performance.

**Objectives**
To register the time necessary to perform the different steps in the development of evidence-based first aid guidelines.

**Methods**
The development process was subdivided in time spent to formulate research questions, to review the literature and to discuss and give feedback ad interim and afterwards. Each research question was formulated/reviewed by 1 trained methodologist. Three methodologists performed time registration by tracking the time manually into a pre-defined excel file.

**Results**
Time registration for 282 research (PICO) questions was carried out. Formulating research questions took 1038 minutes, developing search strategies: 51324 minutes (per PICO), title and abstract screening: 1134 minutes (per 100 hits), full text assessment: 533 minutes (per article), data extraction: 31315 minutes (per article), quality appraisal: 633 minutes (per article), making evidence conclusions: 734 minutes (per PICO) and 134 hours for discussion/feedback (including feedback on draft recommendations, internal meetings and expert meetings). The total amount of time needed to complete the entire process was 925 hours (or 24 work weeks of 38 hours).

**Discussion**
Validation of the current information together with identifying barriers and facilitators of this time tracking process will further improve this process and its time estimations.

**Implications for guideline developers/users**
The current analysis is useful to estimate the time and corresponding costs of future similar guideline projects.

## Poster Presentations A

### (PO A-23) Recruitment of Patient Representatives for Guideline Panels

First Author: Kendall E. Alexander – Clinical Quality Projects Specialist, American Society of Hematology
Second Author: Adam Cuker
Third Author: Robert Kunkle – Senior Manager, Practice Guidelines, American Society of Hematology
Fourth Author: Julie Panepinto
Fifth Author: Anita Rajasekhar
Sixth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Seventh Author: Starr Webb – Manager, Clinical Quality Projects, American Society of Hematology
Eighth Author: Robert M. Plovnick – Director of Quality Improvement, American Society of Hematology

**Background**
The Institute of Medicine recommends that patient representatives should be included in the guideline development process, e.g., serve as members of a guideline panel. A possible challenge is identifying individuals who are representative of other patients, can work comfortably on an expert group, and do not have conflicts of interest.

**Objectives**
To recruit patient representatives for guideline panels of the American Society of Hematology (ASH).

**Methods**
The first round of recruitment was conducted by reaching out to clinicians (>100) on 11 ASH guideline panels. Only 4 individuals were recommended. Patient advocacy organizations were then asked to make announcements for volunteers via social media, which resulted in 145 applicants. By phone, staff used a questionnaire to assess 48 candidates across 5 domains: technical or scientific skills, group skills, motivation, availability and eligibility. Exclusions from participating included being a clinician or having a financial conflict of interest. Individuals were assigned to guideline panels based on scoring across these domains.

**Results**
After screening, 22 individuals were approved and volunteered to serve on 11 guideline panels as patient representatives.

**Discussion**
Different recruitment strategies can result in patient representatives with different strengths, weaknesses, and biases. For example, patients recruited through an advocacy organization may tend to have greater disease severity or share positions of the advocacy organization. Individuals recruited through a clinician may be reluctant to contradict that clinician if he or she serves on the same guideline panel.

**Implications for guideline developers/users**
Multi-pronged recruitment, with a rigorous vetting process, can successfully identify candidates to serve as patient representatives on guideline panels.

## Poster Presentations A

### (PO A-24) The American Society of Clinical Oncology's Process for Managing Guideline Panel Conflicts of Interest (COI)

First Author: Kaitlin Einhaus – Program Manager, American Society of Clinical Oncology (ASCO)
Second Author: Rebecca Spence

**Background**
In 2013, the American Society of Clinical Oncology (ASCO) updated the process for identifying and managing guideline panel conflicts of interest.

**Objectives**
ASCO hypothesized that a new method could make populating guideline panels easier while still targeting the most troublesome COIs for management, without impacting guideline quality.

**Methods**
The new method added a dollar amount threshold to the definition of a COI. New categories of relationships with companies (speaker's bureau, significant ownership) were created. Those with payments in other categories below the dollar threshold were not considered conflicted, while those with these relationships in the new categories are completely excluded from panels.

**Results**
Since policy was implemented, approximately 70 panels of 15-20 members have been populated. The two-month timeline for populating panels has not changed.

**Discussion**
Populating guideline panels has been easier under the updated policy. Some panel members who had previously served on panels were not eligible to serve on updates.

**Implications for guideline developers/users**
Guideline developers can invite experts while reducing actual and perceived influence by affected companies. Clearly defining and communicating what is considered a conflict and having well-defined procedures for managing real and perceived conflicts remains challenging.

## Poster Presentations A

### (PO A-25) Guideline Development for Members of a Professional Nursing Organization: Methodologies and Challenges

First Author: Therese A. West – American Association of Neuroscience Nurses CPG Editor/ Nurse Practitioner, American Association of Neuroscience Nurses
Second Author: Sheila A. Alexander – Associate Professor, University of Pittsburgh, School of Nursing
Third Author: Helen Coronel
Fourth Author: Sarah Livesay
Fifth Author: Molly McNett – Director, Nursing Research, The MetroHealth System
Sixth Author: Angela R. Starkweather – Professor, University of Connecticut School of Nursing

**Background**
There are 19.3 million nurses and midwives in the world and it has been estimated that each nurse cares for an average of 23 patients each shift, thus potentially impacting a possible 2400 persons per year per nurse. Evidence based nursing care has been shown to improve patient outcomes and are required for, financial reimbursement through and as protected against legal action. Standards of care for nurse are taken from evidence based clinical practice guidelines (CPG) that are often developed by medical providers and not focused on nursing care.

**Objectives**
To adapt proven and recommended medical guideline development methods that would be applicable and executable by a national professional nursing organization that utilizes volunteer authors, reviewers and editors.

**Methods**
A literature search and review of existing methodologies for CPG development was followed by Editorial Board review, comparison, and discussion.

**Results**
The process to develop a model for nursing CPG development incorporates elements from the Institutes of Medicine and the World Health Organization CPG development. A pilot will be reported related to methodology, draft policy and results that are applied to two CPG revisions beginning in May 2016.

**Discussion**
The American Association of Neuroscience Nurses Editorial Board has completed Phase I of a multi phase project that will use an iterative process as recommended by the Institutes of Healthcare Improvement Model for Improvement and testing changes; Plan-Do-Study-Act cycles.

**Implications for guideline developers/users**
The development of a standardized evidence based process that can interpret medical knowledge into nursing actions could benefit not only nurses but patients, quality and outcomes measures.

## Poster Presentations A

### (PO A-26) Should Quality Domain Weighted Meta-Analysis Be Used in Clinical Practice Guidelines?

First Author: Patrick Donnelly – Evidence Based Medicine Research Analyst, American Academy of Orthopaedic Surgeons
Second Author: Peter Shores – Evidence Based Medicine Statistician, American Academy of Orthopaedic Surgeons
Third Author: Nilay Patel – EBM Research Analyst, AAOS

**Background**
A common objection to the use of Quality Effects models in meta-analysis is that they rely on a numerical score that represents their validity, and there is no empirical basis for determining how much weight each quality domain should receive.

**Objectives**
To present a new method of performing quality effects meta-analysis that differentially weights quality domains by the extent to which they contribute to heterogeneity in an existing body of literature.

**Methods**
This method employs a series of bivariate meta-regressions to investigate which quality domains contributed the most to observed trial heterogeneity of effect sizes. Each question is weighted by the anti-log of the adjusted R-squared for a given domain. This re-distributes the weight to the quality characteristics most likely to bias the results one way or the other. This method is demonstrated using data from 10 RCT's evaluating the effect of patellar resurfacing on reducing the risk of need for revision knee replacement. These results are then compared to the fixed, random and standard quality effects models.

**Results**
The relative risk ratios for revision were .73, .62, .65, and .68 for the fixed, random, quality effects and informative quality effects models respectively.

**Discussion**
This approach to Meta-analysis allows the guideline developer to incorporate a greater body of Literature into their guideline development without sacrificing the validity of the result, while providing more justifiable quality effect weights.

**Implications for guideline developers/users**
A greater body of Literature gets reflected in the guideline process.

## Poster Presentations A

### (PO A-27) Incorporating Best Practices of Network Meta-Analysis (NMA) into Clinical Practice Guidelines (CPG)

First Author: Peter Shores – Evidence Based Medicine Statistician, American Academy of Orthopaedic Surgeons
Second Author: Kyle Mullen – Research Analyst, American Academy of Orthopaedic Surgeons
Third Author: Danielle Schulte, MS
Fourth Author: Gregory Brown
Fifth Author: David Jevsevar

**Background**
CPGs should evaluate best available evidence to address multiple treatment comparisons through NMA with respect to best practices including: high/moderate quality, homogeneity, consistency, and enhanced significance thresholds.

**Objectives**
To achieve widespread incorporation of NMA using relevant patient reported outcomes (PRO) in CPGs in order to allow variant treatment method comparisons among the highest quality evidence available.

**Methods**
Articles were included as best available evidence based on critical appraisal of study structure coupled with extensive qualitative and quantitative homogeneity testing. Target PROs were extracted into uniform scales and converted into available units of minimal clinical important difference (MCID). Direct and indirect comparisons of all treatments included in the NMA were made and results were tested for consistency.

**Results**
Clear data from mixed treatment comparisons were derived, which allowed appropriate rank ordering of treatments based on highest probability of effectiveness with the lowest degree of bias.

**Discussion**
The use of NMA facilitates the ability to compare treatments for a condition where direct experimentation may be unreasonable. In combination with the use of MCID, when available, NMA becomes a useful tool for determining the most effective treatments with clinically relevant results based on PROs.

**Implications for guideline developers/users**
Using direct and indirect comparisons from NMA results, guideline developers will be able to use data from best available evidence to determine the most effective treatment options for increased patient safety and high quality care.

## Poster Presentations A

### (PO A-28) Advancing the Quality of Research with Educational & Practical Guides for Researchers

First Author: Kyle Mullen – Research Analyst, American Academy of Orthopaedic Surgeons
Second Author: Ryan Pezold – Lead Research Analyst, American Academy of Orthopaedic Surgeons
Third Author: Jayson Murray – Manager, Evidence Based Medicine Unit, American Academy of Orthopaedic Surgeons

**Background**
As clinical practice guidelines (CPG) producers, it is common to receive questions regarding why a relevant article's quality was downgraded. This interest presented an opportunity for developing research education guides to help researchers evaluate and improve their study designs and/or reporting prior to publication.

**Objectives**
To present web-accessible resources that assist in designing, reporting, appraising, and submitting research studies, and ultimately, expediting assessment and increasing quality and inclusion for CPGs.

**Methods**
Evidence-based medicine processes of the American Academy of Orthopaedic Surgeons were deconstructed and reformatted into checklists for use by those developing and conducting research. These checklists were then built out in a user-friendly electronic configuration.

**Results**
Electronic clinical research guides/checklists were developed, affording the user four options: study planning guides, study design quality appraisal, manuscript preparation checklists, and manuscript submission criteria for various online journals. Additionally, each guide/checklist can be printed and/or emailed for future use.

**Discussion**
If utilized appropriately, at any stage of the research process, these resources ensure: necessary study design components are sufficiently considered, self-evaluation of study quality, and assistance with constructing a final manuscript for publication. The improvement in quality of published studies ultimately benefit the usefulness and impact of CPGs. These resources have received positive feedback regarding their clarity and utility from representatives on orthopaedic and research committees.

**Implications for guideline developers/users**
Improvement of the quality of study design and reporting in future publications.

## Poster Presentations A

### (PO A-29) A Web-based System to Ease the Burden of Guideline Development

First Author: Ryan Pezold – Lead Research Analyst, American Academy of Orthopaedic Surgeons
Second Author: Jayson Murray – Manager, Evidence Based Medicine Unit, American Academy of Orthopaedic Surgeons
Third Author: Kyle Mullen – Research Analyst, American Academy of Orthopaedic Surgeons

**Background**
We were able to resolve the shortcomings of typical office programs in terms of organization and data storage/transfer by developing a unified system with the capability to maintain ease of access while securely storing and tracking all literature, appraisals, and data needed for systematic review and/or CPG development.

**Objectives**
Present a program for the Presentation and Evaluation of Evidence-based Research (PEER) for guideline developers to store literature, review abstracts, appraise quality, and extract data from one secure, web-accessible, and flexible program.

**Methods**
PEER houses folders for individual projects which each contain all abstracts and full-text articles that are imported. Article uploads can be matched between projects and any projects can be accessed and updated by any reviewer simultaneously. Analysts/abstractors can then review articles, add commentary, appraise quality, and extract data for any common study design.

**Results**
All notes, data, etc. remain saved to each article file and can be updated or assessed by reviewing clinicians if needed. Final output is generated to include all relevant patient group and comparison data which can be saved in formats compatible with Microsoft Office tools and Acrobat.

**Discussion**
Using the PEER program for the bulk of the CPG process: limits potential error from calculations or transfer of data, creates an environment for communication and sharing, and organizes articles and notes for quick reference and review.

**Implications for guideline developers/users**
Guideline developers can perform all the key components of a systematic review while saving time and lowering cost by increasing efficiency and organization through one secure and accessible program.

## Poster Presentations A

### (PO A-30) Improved Strategies to make Appropriate Use Criteria (AUC) Easier to Understand and Process

First Author: Ryan Pezold – Lead Research Analyst, American Academy of Orthopaedic Surgeons
Second Author: Jayson Murray – Manager, Evidence Based Medicine Unit, American Academy of Orthopaedic Surgeons

**Background**
In 2000, the RAND/UCLA Appropriateness Manual was published and thoroughly outlined the methodology of creating and presenting Appropriate Use Criteria (AUC). The state of data management has improved significantly in the subsequent 16 years.

**Objectives**
To show an easy to use web-based tool to create and present appropriate use criteria as an alternative to historical AUC development and presentation.

**Methods**
We present a new proprietary web-based system for the systematic generation, storage, and presentation of AUCs. This system allows us to systematically generate the entire patient matrix, identify which treatment options drive disagreement, automates agreement and disagreement calculation, and subsequently present the final tool in an easy-to-navigate public-facing interface.

**Results**
By shifting the presentation and storage of AUCs from a nested technique to a database format, we have significantly decreased the amount of cognitive energy and labor required both to create and use AUCs. By allowing users to filter and mass update their ballots based on certain indications, we have been able to push the limits of the size of AUCs from the recommended 2000 scenario maximum up over 6000 scenarios in one project.

**Discussion**
Although the original unofficial handbook has not been updated, the process and data management have continued to evolve and improve, and the American Academy of Orthopaedic Surgeons in particular has developed a web-based system to systematically handle AUCs.

**Implications for guideline developers/users**
The antiquated and often confusing systems previously used for AUC development and dissemination no longer need to be a limiting factor of AUC development.

## Poster Presentations A

### (PO A-31) Intellectual Conflict of Interest in Appropriate Use Criteria

First Author: Jayson Murray – Manager, Evidence Based Medicine Unit, American Academy of Orthopaedic Surgeons
Third Author: Peter Shores – Evidence Based Medicine Statistician, American Academy of Orthopaedic Surgeons
Second Author: Ryan Pezold – Lead Research Analyst, American Academy of Orthopaedic Surgeons

**Background**
The RAND/UCLA Appropriateness Method suggests that AUC voting panel composition encompasses multiple disciplines, including those who perform the procedure, physicians in related specialties, and sometimes primary care providers. In an effort to analyze the effect that diverse voting panels have on the final AUC ratings, the AAOS analyzed divergence between surgeons and non-surgeons participating on two published AAOS AUCs.

**Objectives**
To provide support for multidisciplinary clinician work groups on appropriate use criteria panels.

**Methods**
After the data was partitioned for each of the two AUCs of interest, the overall mean differences between surgeons and non-surgeons were examined for each treatment addressed within the AUCs, overall mean differences were examined between the first and second round of voting, and regression analyses were conducted for each round of rating and for each AUC.

**Results**
For the few treatments where surgeons and non-surgeons round one appropriateness ratings were divergent, the in-person meeting/discussion appeared to have had a large convergent effect on the second round of voting, resulting in more statistically similar ratings in round two between the two subgroups.

**Discussion**
The data supports the importance of clinical diversity for AUC voting panels. For the most part, any differences in opinion between surgeons and non-surgeons during the first round of rating appeared to be assuaged with a brief in-person discussion regarding those voting items which the group is disagreeing on.

**Implications for guideline developers/users**
Diversity of voting panel members should be considered as an advantage for all AUC developers.

## Poster Presentations A

### (PO A-32) Hidden Bias in AAN Guidelines

First Author: David Gloss – Evidence-based Medicine Consultant, American Academy of Neurology

**Background**
I wanted to investigate three possible sources of hidden bias in AAN guidelines:
1. ORBIT classification (high risk for bias),
2. Papers which were graded one way according to the initial clinical questions, but when applied in the guideline should have had another rating,
3. Papers which may have had different uses in a guideline depending on how the confidence interval was calculated.

**Objectives**
To prospectively examine Class I and II papers included in AAN guidelines for the three sources of bias. Class I and II papers are defined by the AAN methodology for grading papers.

**Methods**
1. All Class I and II papers from guidelines prospectively enrolled from April 2014 to present were examined for each of the three possible sources of bias.
2. The primary outcome is a ratio of papers which had a bias to the total number of papers.

**Results**
Eight guidelines containing 84 Class I or II papers were included. 9 of the 84 papers had one of the three aforementioned possible sources of bias, most of which were papers which could have a different classification based on the specific question they were answering.

**Discussion**
Slightly more than 10% of AAN guidelines had a hidden source of bias. Since this proportion is small, it is unclear if adding search for these sources of bias would enhance our guidelines, or create a road block for timely completion.

**Implications for guideline developers/users**
Maybe each paper that applies to multiple questions should have a separate question-specific classification?

## Poster Presentations A

### (PO A-33) Disclosing Interests and Managing Conflicts for Guideline Development at the American College of Physicians

First Author: Melissa Starkey – Senior Clinical Associate, ACP
Second Author: Kate Carroll – Clinical Policy Associate, American College of Physicians
Third Author: Amir Qaseem, MD, PhD, MHA, FACP – Vice President, Clinical Policy, American College of Physicians

**Background**
Standards released by the Institute of Medicine and G-I-N have resulted in increasing scrutiny on guideline developers to ensure full transparency in disclosing potential conflicts of interest (COI).

**Objectives**
The American College of Physicians (ACP) aimed to implement a strengthened disclosure of interests (DOI) and COI management policy for all individuals involved in the development of ACP's guidelines.

**Methods**
Consulting relevant literature, ACP staff developed and implemented stringent DOI and COI management policies. These policies are applied to everyone involved in the guideline development process, including committee members, staff, collaborators, and involved members of the public.

**Results**
ACP successfully implemented the improved DOI and COI policies at several guidelines committee meetings. COI are classified as low, moderate or high, and each category is associated with appropriate management strategies.

**Discussion**
Changing the culture from disclosing "relevant COI" to full disclosure can be challenging, but is important for achieving full transparency. A management policy that establishes different levels of conflicts allows for the ability to restrict a conflicted individual's participation according the extent of the conflict.

**Implications for guideline developers/users**
Transparency in the guideline development process is important for guidelines to be considered high quality and trustworthy. A strict DOI and COI management strategy reassures readers that a guideline was developed with minimal bias.

## Poster Presentations A

### (PO A-34) Incorporation of Patient Advocate Participants on Systematic Review and Guideline Development Expert Workgroups

First Author: Lisa M. Moloney – Evidence-based Practice Manager, Academy Of Nutrition and Dietetics
Second Author: Alison Steiber

**Background**
Obtaining patient input at each step in Evidence-based Nutrition Practice Guideline (EBNPG) development can strengthen recommendations by increasing transparency, and by ensuring recommendations are understandable and address patient needs. Patient advocate participation can be powerful, however, patient participation can be difficult if patients are not carefully selected and adequately trained.

**Objectives**
Historically, EBNPG are developed by a six member workgroup composed primarily of registered dietitians, and does not include patient advocates. In June 2015, the chronic obstructive pulmonary disease (COPD) Patient Advocate Pilot was commenced to strengthen development of EBNPG.

**Methods**
Through the assistance of a patient advocacy consultant, solicitations were sent to patient advocacy groups. Four applicants applied, two were selected. The two patient advocates received the same orientation and training as other workgroup members along with additional training on the online platform used to conduct business. Thus far, there has been 90% patient advocate participation rate on the workgroup calls.

**Results**
In October 2015, a survey was administered to obtain feedback from workgroup members. Seven out of eight members participated: 100% strongly agreed or agreed that orientation adequately prepared them; 100% strongly agreed or agreed that they understood the guideline development process and their role as a workgroup member; 100% strongly agreed or agreed that their input was valued; and 100% strongly agreed that they valued the input of others on the workgroup.

**Discussion**
Appropriate patient advocate selection and training can limit complications associated with patient advocate participation.

**Implications for guideline developers/users**
Patient advocate participation is an essential and feasible component of strong patient centered guidelines.

## Poster Presentations A

### (PO A-35) Incorporating a Cost Literature Review in to Clinical Practice Guidelines

First Author: Nilay Patel – EBM Research Analyst, AAOS
Second Author: Jayson Murray – Manager, Evidence Based Medicine Unit, American Academy of Orthopaedic Surgeons
Second Author: Patrick Donnelly – Evidence Based Medicine Research Analyst, American Academy of Orthopaedic Surgeons

**Background**
Integration of a cost literature review into a clinical practice guideline provides an additional layer of information that may be helpful to guideline users. However, there is no gold standard for appraising the quality of cost literature study designs. Researching multiple appraisal techniques, we have assembled a hybrid approach to quality evaluation for cost literature.

**Objectives**
To share our quality appraisal process for cost literature.

**Methods**
We began with two quality appraisal checklists recommended by the Cochrane Collaboration. Checklists were deconstructed, and items were organized and combined into one amalgamated checklist. A system was created to ensure transparent reporting of design flaws of each study included in the cost report.

**Results**
Our quality evaluation form incorporates twenty checklist items within the following domains: scope, stakeholder involvement, rigor of development, clarity of presentation, and applicability. A visual key is used to relay any relevant flaws in study design, as they relate to the aforementioned domains. AAOS guidelines, now incorporate supplemental cost literature reviews and evaluate all cost literature using this form.

**Discussion**
Our work to create an effective and user-friendly cost literature quality evaluation form may be useful for guideline developers who incorporate, or who are looking to incorporate, quality economic evaluation into their guideline process.

**Implications for guideline developers/users**
Our quality appraisal checklist will benefit guideline developers who perform cost literature reviews, affording them a concise system to gauge and report flaws in the designs of cost literature.

## Poster Presentations A

### (PO A-36) Analysis of the Evidence Sources of Recommendations in Integrative Medicine Guidelines

First Author: Xiaoqin Wang
Second Author: Qi Zhou
Third Author: Jiali Wang
Fourth Author: Haosen Wu
Fifth Author: Yang Yu
Eighth Author: Yuanmeng Luo
Sixth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Seventh Author: Kehu Yang

**Background**
Clinical practice guidelines (CPGs) of integrative medicine are critical documents guiding practice to optimize the medical service. The reliability and practicality of recommendations from CPGs are largely depending on the quality of evidence.

**Objectives**
To analysis the evidence sources of recommendations in guidelines of integrative medicine.

**Methods**
CNKI, Wanfang Data, CBM and VIP databases were systematically searched from inception to January, 2015, a supplementary search of China Guideline Clearinghouse (CGC) was conducted and references of included guidelines were checked. Two reviewers independently selected guidelines and extracted data, any disagreement was solved by discussion.

**Results**
41 guidelines were included. A total of 375 references were cited to support recommendations, with 8.3(0-68) of each guideline on average, and seven guidelines had no supported reference. Recommendations in integrative medicine guidelines contained two parts——Traditional Chinese Medicine(TCM) and western medicine. And the evidence status was: recommendations of TCM had 118 references in 17(41.46%) guidelines, and no reference was found in 24(58.54%) guidelines; recommendations of western medicine had 257 references in 24(58.54%) guidelines, and no reference was found in 17(41.46%) guidelines. For the types of evidence: recommendations from TCM and western medicine were supported by: guidelines (15 vs. 46), SRs(9 vs. 16), RCTs(33 vs. 62), cohort studies(0 vs. 2), case series/reports(5 vs. 17), reviews(19 vs. 49), monographs or textbooks(18 vs. 16), others (19 vs. 49) including comments, experience summaries, animal experiments etc.).

**Discussion**
Developers of integrative medicine guidelines paid insufficient attention to evidence when developing recommendations.

**Implications for guideline developers/users**
An improvement of high quality evidence for recommendations in integrative medicine guidelines is needed.

## Poster Presentations A

### (PO A-37) Comparative Analysis of Guideline Development Handbooks from Different Guideline Organizations

First Author: Yao Liang
Second Author: Chen Yaolong
Third Author: Xiaoqing Wang
Fourth Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Fifth Author: Wei Dang
Sixth Author: Kehu Yang

**Background**
The guideline development handbooks are guiding documents in guideline development. Many international guidelines organizations have published their own guideline handbooks.

**Objectives**
To compare the major contents and characteristics of guideline handbooks from different guideline development organizations.

**Methods**
We used four approaches to collect guideline handbooks: ①searching PubMed; ②searching the website of guideline development organizations through Google ; ③contacting guideline organizations; ④checking the references of guideline handbooks.

**Results**
A total of 34 guideline handbooks were included, of which nine from America, eight from UK, two from European Union, two from Canada, two from Australia, four from Asia (two from mainland China, one from Taiwan and Japan respectively), and one from Africa (Uganda), and the rest six were developed by international organizations. 31 handbooks reported guideline group constitution, including clinicians, methodologists, patients and policy makers, and the number of people in guideline group ranged from 5~40 members. 29 handbooks reported the searching databases during guideline development, of which Medline, Embase and Cochrane Library were the most frequently searched databases. 31 handbooks mentioned eight grading approaches of quality of evidence and strength of recommendation. 25 handbooks descripted the update cycle from 3~6 months to five years.

**Discussion**
The development and update process of guideline from different guideline organizations varies a lot, which might not be beneficial to guideline dissemination and implementation.

**Implications for guideline developers/users**
Guideline developers from different organizations should make a consensus on guideline development process in their guideline handbooks.

## Poster Presentations A

### (PO A-38) How Many Traditional Chinese Medicine Guidelines Reporting Search Strategies A Cross-Sectional Study

First Author: Yao Liang
Second Author: Xiaoqing Wang
Third Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Fourth Author: Wei Dang
Fifth Author: Kehu Yang

**Background**
The Institute of Medicine (IOM) indicates that the development of clinical guidelines should be based on systematical evidence retrieval. However, China have published hundreds of traditional Chinese medicine (TCM) guidelines, which the situation of searching evidence is still unclear.

**Objectives**
To investigate and analyze the situation of searching strategies in TCM guidelines.

**Methods**
A systematic search was performed, including Wanfang, VIP, CNKI to obtain TCM guidelines published on journals, and handle searching was performed of Google, Amazon, and Dangdang to get TCM guidelines published in books. Finally, we checked the references from the included TCM guidelines.

**Results**
Finally we included 115 TCM guidelines, of which 87 were published in journals, 28 were published in books. There were 39 TCM guidelines reported searching database, and 34 reported searching key words. The main searching databases included Medline, CNKI, CBM and other classics TCM database. But we cannot repeat the evidence retrieval process of the 39 TCM guidelines because they did not provide detailed searching strategies. And all the 39 TCM guidelines did not report the inclusion criteria of evidence and the screening process.

**Discussion**
Although more and more TCM guidelines have published, most of evidence retrieval strategies cannot be repeated, which might lead to many high quality TCM researches cannot be translated to clinical practice.

**Implications for guideline developers/users**
We suggest that TCM guideline developers should be aware to invite retrieve experts to perform systematical evidence retrieval in the process of guideline development.

## Poster Presentations A

### (PO A-39) Minds' Activities on Support for Guidelines Development in 2011 to 2015

First Author: Yosuke Hatakeyama – Assistant Manager, Japan Council for Quality Health Care, Department of EBM and Guidelines
Second Author: Masahiro Yoshida – Prof. of Surgery, Chief Researcher, Minds Guideline Center, Int. Univ. of Health and Welfare Japan, Japan Council for Quality Health Care
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Fifth Author: Hiroyuki Sugawara – General Manager, Japan Council for Quality Health Care, Department of EBM and Guidelines
Sixth Author: Naohito Yamaguchi – Professer and Director, MInds guideline center, Japan council for Quality Health care

**Background**
Financially supported by Japanese Ministry of Health, Labor, and Welfare, Minds have conducted supports for clinical practice guidelines (CPGs) development in 2011 to 2015.

**Objectives**
The aim of this report is to inform about Minds' activity for CPGs development support in Japan.

**Methods**
In 2012, we started to consider for improving our activities on CPGs development support. Based on the preceding CPGs development handbooks created, we developed workshops, textbooks, and support programs for guideline developers.

**Results**
First, we developed workshops for CPGs development in 2012, and held 4 basic course workshops in 2013. Based on the results of questionnaire survey to these workshop participants, we developed systematic review course, and have hold 2 basic courses and 2 systematic review courses each year since 2014. Second, we developed a manual (full version) and a handbook (dissemination version) for CPGs development, and posted these text on our website. We revised these textbooks and developed some additional documents. Third, we have organized inquiry team for CPGs developers who have questions on CPGs development and needs for technical or educational support on their CPGs development. About 20 CPGs development groups asked us to support in each year.

**Discussion**
However, to improve our activities on CPGs development supports, there are some tasks, such as the assessment on the effectiveness of our CPGs development supports, the update to global advancement on CPGs development methods, and the further investigation on actual situations and needs on Japanese CPGs development.

**Implications for guideline developers/users**
Improving these CPGs development support activities, we continue supporting for trustworthy CPG development.

## Poster Presentations A

### (PO A-40) How to Overall Assess the Quality of Guidelines through the AGREE Instrument?

First Author: Zixia Wang
Second Author: Xiaonan Chang
Third Author: Xianggui Luo
Fourth Author: Miao Wan
Fifth Author: Chen Wang
Sixth Author: Le Li
Seventh Author: Dang Wei

**Background**
The Appraisal of Guidelines for REsearch & Evaluation (AGREE) instrument is a tool for development, assessment and reporting of guideline. There are 6 domains (23 items) and the item(s) of overall guideline assessment in the original and secondary version of AGREE instrument. Meanwhile, there is no criterion of overall guideline assessment in the two versions. However, the researchers using AGREE to assess guidelines have defined the standard.

**Objectives**
We aim to collect the criteria of overall assessment of guidelines through reviewing those researches using AGREE instrument to assess the guidelines.

**Methods**
We searched MEDLINE (via PubMed) and Web of Science to identify the studies using AGREE instrument to assess the guidelines. Two independent reviewers screened title and abstract, reviewed full-text, and extracted data.

**Results**
Total 61 studies were included, which were published from 2003 to 2015. Of those, 55.7% (34/61) studies used the AGREE I, the remainder (44.3%, 27/61) with AGREE II. 63.9% (39/61) studies finished the overall assessment of guidelines. Of which, 39.3% (24/61) reported the criteria. We summarized 13 criteria. Most criteria (77%, 10/13) were consisted of the special score of each domain and the number of domains with the special score.

**Discussion**
The criteria for overall assessing the quality of guideline through AGREE instruments are not consistent. But most of them are based on the special score of each domain and the number of domains with the special score.

**Implications for guideline developers/users**
We suggest that more factors should be considered for overall assessment of guideline except for the score of domains.

## Poster Presentations A

### (PO A-41) The Evaluation for Quality of Evidence of Cost or Economic Outcomes Through GRADE: A Survey of Cochrane Reviews

First Author: Zixia Wang
Second Author: Xiaonan Chang
Third Author: Xianggui Luo
Fourth Author: Miao Wan
Fifth Author: Chen Wang
Sixth Author: Le Li
Seventh Author: Dang Wei

**Background**
Nowadays, all the evidences in systematic review are nearly about estimated effectives based on the existing relevant researches. However, nowadays, there are an increasing number of systematic reviews focusing on the cost or economic outcomes and cost-effective analysis, and few number of studies rating the quality of evidence on those outcomes.

**Objectives**
Aim to investigate the evaluation of quality of evidence on cost or economic outcomes and the factors on those outcomes when rating.

**Methods**
We searched Cochrane Database of Systematic Review by the terms, namely “economic”, “economics”, “socioeconomic”, “insurance”, “cost”, without limitation of the date which was from the inception to January 5th, 2016. The reviews which used GRADE to rate the quality of cost outcome and reported those results were identified by two independent researchers.

**Results**
A total of 1215 records were retrieved from Cochrane Database, of those 14 reviews were included. Those included reviews were published from 2012 to 2015 and whose first authors were from five countries. The number of outcome focused on was ranged from three to seven; however, each review only reported one cost or economic outcome supported by one to six primary studies respectively. The quality of evidence included one moderate, eight low and five very low.

**Discussion**
The cost or economic outcomes were rarely reported and rated by GRADE in Cochrane reviews. Most outcomes were considered with low or very low quality of evidence.

**Implications for guideline developers/users**
The further systematic reviews should be suggested focusing on cost or economic outcome and rating the quality of evidence by GRADE.

## Poster Presentations A

### (PO A-42) Using a Stepped Approach to Systematic Evidence Review to Update NICE Guidelines on Smoking Cessation

First Author: Ruaraidh Hill – Senior Analyst – Internal Guidelines Development,
Second Author: Paul Levay
Third Author: Caroline Mulvihill
Fourth Author: Linda Sheppard
Fifth Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Sixth Author: Simon Ellis
Seventh Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Guidelines need regular updating to maintain relevance to practice. This presents challenges to guideline developers, particularly where guidelines are large and the evidence base diffuse or rapidly evolving.
In topic areas with mature secondary research, prioritising systematic review-level evidence could be more efficient than conducting large searches to identify primary studies; producing broadly similar evidence profiles. There are limitations, however, and the approach is untested across public health guidelines.

**Objectives**
To develop a set of evidence reviews to inform update to NICE guidelines on smoking cessation using rapid review and review of reviews (RoR) methods supplemented with a stepped approach to evidence searching and selection.

**Methods**
The stepped approach to evidence identification includes a set of pre-defined stages, beginning with a set of RoRs using the Cochrane Database of Systematic Reviews. These are supplemented where there are limitations and added 'value of information' for the decision maker. The approach is structured, considered and integrative.

**Results**
We will present findings on developing, implementing and reporting the stepped approach. This will include evidence selection and quality tools used and practical lessons identified.

**Discussion**
Updating guidelines can be resource intensive, so must be managed efficiently. The mature secondary research evidence base in smoking cessation allows us to develop and implement our stepped approach. The approach supports rapid, integrated evidence review across guideline questions.

**Implications for guideline developers/users**
Guideline developers could apply this stepped approach in topics with a challenging evidence base to efficiently deliver relevant and timely evidence reviews.

## Poster Presentations A

### (PO A-43) A Tool to Adjust Effect Measures for Biases in Conducting Systematic Reviews of Comparative Effectiveness Research

First Author: Noriko Kojimahara
Second Author: Toshio Morizane – Senior Visiting Researcher, Japan Council for Quality Health Care
Third Author: Naohito Yamaguchi – Professor and Director, MInds guideline center, Japan council for Quality Health care

**Background**
In regards to assessing both internal and external bias, it is useful to categorize the magnitude into three ranks for its simplicity. However, the grading needs judgments and yields inconsistent results.

**Objectives**
To provide a simple tool which adjust for directions and magnitudes of potential biases in regards to randomized controlled trials (RCT) for Japanese evaluators who perform meta-analysis and evidence synthesis.

**Methods**
We adopted the Turner's method which evaluates distribution of the probability of each risk of bias domain and external bias by assuming additive and proportional bias. The guideline developing groups will conduct tests whether it would show an improvement or not, compared to its previous results derived from utilizing three ranks of evaluation categories.

**Results**
In a standard GRADE assessment, it is often witnessed that the criteria for lowering the bias risk were less obvious among the evaluators. The difference between the evaluation results for each category is also planned to be assessed.

**Discussion**
This tool becomes feasible by expressing bias effects in probability distributions as to what extent the evaluator would be sure on its accuracy. However, there are some remaining issues that evaluation of imprecision, inconsistency can be included in the bias assessment.

**Implications for guideline developers/users**
The quality of a body of evidence will be determined that the evaluator can be confident on its true effectiveness. The evaluator is expected to be able to utilize this tool skillfully, which would result in promoting the standardization of risk of bias evaluation with a higher degree of transparency ensured.

## Poster Presentations A

### (PO A-44) Grading Systems of Quality of Evidence and Strength of Recommendation in Traditional Chinese Medicine Guidelines

First Author: Xiaoqin Wang
Second Author: Liang Yao
Third Author: Qi Zhou
Fourth Author: Lurong Zhang
Fifth Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University
Sixth Author: Kehu Yang

**Background**
Assessing the quality of evidence and strength of recommendation with appropriate grading systems can promote the scientific recommendations development, and help guideline users implement recommendations reasonably.

**Objectives**
To systematically collect Traditional Chinese Medicine (TCM) guidelines and investigate the status of quality of evidence and strength of recommendation grading.

**Methods**
We systematically searched Wanfang, VIP, CNKI, CBM databases for TCM guidelines published on journals, and supplemented guidelines published in the form of book through Google, Amazon and Dangdang. And we also searched references of TCM guidelines. Two reviewers independently screened literature and extracted data, disagreements were solved by discussion.

**Results**
A total of 61 TCM guidelines who have reference list were included, of which 33 were published on journal, and 28 published as monographs. 43(70%) guidelines reported the quality of evidence and strength of recommendation with ten different grade systems: 31(73%) used classification recommendation of TCM, 31(73%) used GRADE approach, four(9%) used the international standard or its adaptation, five(11%) used other standards. Levels and symbols of the quality of evidence and strength of recommendation were greatly different in 10 grading systems: levels of quality of evidence ranged from three to ten, and strength of recommendation from two to six; six and seven types of symbols were employed to present evidence quality and recommendation strength.

**Discussion**
The grading systems of quality of evidence and strength of recommendation varied greatly in TCM guidelines. The systems were very different in grade levels and symbols.

**Implications for guideline developers/users**
Various grading systems and symbols brought obstacles for correct interpretation and application of recommendations.

## Poster Presentations A

### (PO A-45) The Development of Reporting Guideline for Acupuncture Systematic Review

First Author: Xiaoqin Wang
Second Author: Xiue Shi
Third Author: Yang Yu
Fourth Author: Lili Wei
Fifth Author: Yali Liu
Sixth Author: Kehu Yang

**Background**
Acupuncture becomes increasingly popular around the world, and number of acupuncture systematic reviews/meta-analysis(SR/MAs) increase rapidly. But the reporting quality of SR/MAs was poor and no criteria could be used to standardize their reporting at present.

**Objectives**
To develop an extension of PRISMA statement for acupuncture to improve the reporting quality of acupuncture SR/MAs.

**Methods**
We applied a four steps method including: 1) assess acupuncture SR/MAs and relevant reporting guidelines; 2) investigate the information need from the perspectives of clinicians, researchers, masters and doctors; 3) employ a three rounds of Delphi process to select items; and 4) conduct a face-to-face meeting.

**Results**
even initial items were collected. 269 respondents were surveyed and 251(93%) with complete data were analyzed at the second step, which showed a low satisfaction with the reporting quality of acupuncture SR/MAs. Ten items from previous steps were circulated to Delphi process, where 34 experts were invited and 29 agreed to participate. We have finished the first two rounds of Delphi, and the third round and face-to-face meeting would be conducted in the following two months. The final items will be presented at the conference.

**Discussion**
With comments from evidence users and review of acupuncture SR/MAs, we can capture the main problems more effectively. The Delphi process and the face-to-face consensus meeting are essential to develop reporting guidelines, which will help ensure the strictness and practicality.

**Implications for guideline developers/users**
Reporting quality of acupuncture SR/MAs cannot satisfy evidence users and a reporting guideline is needed to change the problem.

## Poster Presentations A

### (PO A-46) Applicability: Methodology Needs for Evidence Review and Recommendation Development

First Author: Annette Totten – Assistant Professor, OHSU
Second Author: Ngoc Wasson – Research Associate, OHSU
Third Author: Cynthia Davis-O'Reilly – Research Associate, OHSU
Fourth Author: Sandra Assasnik – Research Associate, OHSU
Fifth Author: Elaine Graham – Program Manager, OHSU

**Background**
An important step in guideline development is translation from evidence to recommendations. A key consideration is the extent results from specific studies inform broader recommendations and how these recommendations inform specific decisions about specific patients. Applicability encompasses these considerations but the methodology surrounding its assessment and application is not as well developed as other aspects of guideline development.

**Objectives**
Review current standards and methods guidance related to applicability.
Identify definitions and frameworks as well as remaining gaps.
Develop a framework for applicability for use in traumatic brain injury (TBI) guidelines.

**Methods**
We supplemented a review of current standards/procedures from AHRQ, GRADE, and Cochrane with a search for methodology papers on Applicability. We assess the proposed frameworks, compare definitions, and described how applicability was operationalized and where it was incorporated in evidence synthesis and recommendation development.

**Results**
While applicability is consistently included in standards and procedure guidance, details are limited as to best practices for incorporating it into evidence reviews and recommendations. Some approaches, such as specifying differences in PICOTS for each question can lead to unwieldy lists of caveats while others, such as considering applicability as a type of directness, can be confusing and unclear.

**Discussion**
In supporting the update of TBI guidelines we sought to incorporate applicability in a systematic and transparent manner. Current standards and guidelines were helpful but not sufficient.

**Implications for guideline developers/users**
More systematic and transparent approaches to applicability would help guideline developers and potentially increase user's confidence in guideline implementation.

## Poster Presentations A

### (PO A-47) NICE Guideline Surveillance: An Assessment of Surveillance Decisions

First Author: Emma McFarlane – Technical Adviser
Second Author: Katrina L. Sparrow – Technical Adviser
Third Author: Sarah Willett – Associate Director
Fourth Author: Philip Alderson – Clinical Adviser
Fifth Author: Catherine White

**Background**
Guidelines need to undergo regular surveillance to identify areas of the guideline that may be out of date. The NICE guideline surveillance process was designed with the purpose of standardising the process and methods to improve transparency, consistency and accuracy of surveillance decisions. Since its introduction, the programme has evolved and changed to take account of our learning and experience.

**Objectives**
To provide a descriptive analysis of NICE guideline surveillance decisions to date.

**Methods**
Descriptive data linked to surveillance decisions will be collated including:
• Number of surveillance decisions
• A count of yes and no to update decisions and the proportion of the guideline that needs updating
• Description of the evidence type and quantity of evidence that has fed into the surveillance decisions and how this relates to the evidence base used for the recommendations

**Results**
We will present data of our decisions and how many guidelines have undergone an update. We will also provide a description of the decisions including the evidence type and quantity that have contributed to the decision and, where an update has happened, a description of whether the guideline recommendations have changed.

**Discussion**
Based on the outputs of the descriptive analysis we will discuss the most valuable elements of the surveillance process to focus on and the implications for developers aiming to evaluate and maintain their published guidelines.

**Implications for guideline developers/users**
The information presented will be useful for organisations implementing surveillance processes.

## Poster Presentations A

### (PO A-48) The Impact of Studies from Trial Register for the Results of Systematic Review: A Survey of Cochrane Reviews

First Author: Dang Wei
Second Author: Zixia Wang
Third Author: Miao Wan
Fourth Author: Le Li
Fifth Author: Xiaonan Chang
Sixth Author: Xianggui Luo
Seventh Author: Chen Wang
Eighth Author: Wei Dang
Ninth Author: Kehu Yang

**Background**
There are rigorous requirements for each step of systematic review in Cochrane Handbook. For instance, there must be two independent reviewers when screening the eligible studies and extracting the data, which was supported robust evidence. Furthermore, it suggests that the Cochrane review should search the trial register. To date, there are more 20 international trial registers, such as World Health Organization International Clinical Trials Registry Platform (WHO ICTRP), ClinicalTrials.gov, etc.

**Objectives**
To investigate the search of trial register in Cochrane reviews and analyze whether it would change the results of the reviews.

**Methods**

We sampled the Cochrane reviews published in 2013. Two reviewers extracted the data independently. We assessed the impact of studies from trial register for the pooled effect size of the reviews.

**Results**
There were 992 Cochrane reviews published in 2013. Of those, 974 (98.2%) had searched the registers (mean=2, rang: 1-20). The top 5 frequently searching registers were Cochrane Group Register (91%, 890/974), ClinicalTrials.gov (43%, 423/974), WHO ICTRP (34%, 331/974), CCT (19%, 181/974), metaRegister of Controlled Trials (mRCT) (12%, 120/974). There were 32 (3%) reviews including the studies from registers. Of those, 9 (1%) reviews synthesized the data of ongoing studies. Sensitivity analyses showed only 3 (0.1%) reviews' pooled effect sizes were affected by those studies.

**Discussion**
Most Cochrane reviews have searched the trial register, but rare reviews include the ongoing studies. However, few reviews' results are affected by the studies from registers.

**Implications for guideline developers/users**
Searching trial registers in systematic review may not be such important like we consider before.

## Poster Presentations A

### (PO A-49) Clearly Reporting of Recommendations in the Clinical Practice Guidelines (CPGs) in Chinese Mainland

First Author: Deng Wei
Second Author: Si-qi Fu
Third Author: Wei Dang
Fourth Author: Xiaoqing Wang
Sixth Author: Qi Wang
Seventh Author: Yao Liang
Seventh Author: Chen Yaolong

**Background**
The reporting of recommendations in the clinical practice guideline（CPGs）in mainland China were not clearly.

**Objective**
To survey the clarity of reporting of recommendations in the clinical practice guideline（CPGs）in mainland China.

**Methods**
Databases including CNKI, CBM, and WanFang Data were searched for the CPGs from inception to 31th Dec, 2014. We reached a consensus by referring to the domestic and international guidelines to determine the methods for judging the recommendations as follows: standard A means an independent section for the recommendations in CPG. Standard B Where an iconic statements or grading symbol of the strength of recommendations and the level of evidence can be found. Standard C means sensitive words, such as suggest, recommendations and opinions, can be found in the content of recommendations.

**Results**
A total of 474 CPGs were included 4982 recommendations, where sensitive words appeared 3389 times. And nine grading standards were applied among the included CPG. Of the results: ①the number of CPGs were: A (74, 22.1%), B(40, 11.9%) and C(221, 66.0%); ②recommendations distributed in five fields including diagnosis(1412, 28.3%), treatment (2366, 47.5%), prevention (239, 4.8%), prognosis (71, 1.4%) and others (894, 17.9%); ③ the sensitive words were highlighted with bold (13, 3.9%), and color (1, 0.3%)

**Discussion**
The recommendations, sensitive words and grading system lacked standardization and were poorly reported in CPGs in mainland China, which made guideline developers and stakeholders hard to recognize and distinguish the recommendations.

**Implications for guideline developers/users**
We suggest guideline developers referring to promote clearly reporting of recommendations with effective methods.

## Poster Presentations A

### (PO A-50) G-I-N Updating Guidelines Working Group: The Roadmap

First Author: Laura Martínez García – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau)
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Fourth Author: Pablo Alonso-Coello – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau), McMaster University
Fifth Author: on behalf of the Working Research Group

**Background**
The Guidelines International Network (G-I-N) Updating Guidelines Working Group aims to provide a network for guideline users, developers, and other stakeholders interested in clinical guidelines (CGs) updating methodology. The main goal is to exchange knowledge and experiences about methodological and operational issues. The Updating Guidelines Working Group was established and a Terms of Reference (ToR) was signed in June 2015.

**Objectives**
To describe current and future aims and activities of the Updating Guidelines Working Group.

**Methods**
We reviewed the initial ToR document, previous internal summary reports, and the agendas and minutes of G-I-N conferences. We classified the objectives as: achieved, short term (one year), and long term (over one year). We will describe the activities related with each objective.

**Results**
We identified the initial ToR document, two internal summary reports (from 2015 and 2016), and agenda and minutes from the 12th G-I-N Conference (Amsterdam, 2015). We are currently reviewing the identified objectives and activities. We will present the final results at the 13th G-I-N Conference (Philadelphia, 2016).

**Discussion**
Although the initiative is in its beginning stages, it is necessary to periodically assess its objectives and activities to achieve its main goals. A major limitation to progress is the voluntary contribution of the Working Group members.

**Implications for guideline developers/users**
There is a need to promote and collaborate among guidelines developers and researchers to improve and standardise the process of updating CGs.

## Poster Presentations A

### (PO A-51) "Who is Making Recommendations for My Healthcare?" Twitter Chat Analysis on Consumer Representation in Guidelines

First Author: Reva Datar
Second Author: Barbara Warren
Third Author: Jimmy Le
Fourth Author: Ngina Lythcott
Fifth Author: Bill Vaughan
Sixth Author: Marguerite A. Koster – Senior Manager, Evidence-Based Medicine Services Unit, Kaiser Permanente Southern California
Seventh Author: Kay Dickersin

**Background**
Consumers United for Evidence-based Healthcare (CUE), a national coalition formed in 2003, facilitates partnerships in the U.S. between consumers in healthcare research and clinical practice guideline (CPG) developers. Social media is a widely accessible tool that enables CPG developers and consumers to discuss CPG-related issues.

**Objectives**
To explore the perspectives of consumers and CPG developers regarding consumer representation in guideline development in healthcare using Twitter, a social media service.

**Methods**
CUE (@United4Evidence) hosted a 1-hour public conversation, or Twitter Chat, on 03/17/16 We asked participants to post messages ("Tweets") on Twitter using a unique identifier (#AskCUE). One CPG and Guidelines International Network representative responded to consumer questions. Data were gathered using Twitter Analytics.

**Results**
The Twitter Chat generated 190 Tweets reaching approximately 30,000 people. About 20% of the Tweets were re-posted ("retweeted") during the Chat. The most "influential" participants (defined as those with the most Twitter followers) represented LGBT and student advocacy groups, and an HIV guideline group. Consumers asked why certain populations are not adequately included in CPG development, where they can find resources about CPG development, and how to get involved.

**Discussion**
Participation from influential consumer groups increased CUE's reach among populations of interest. Two-way communication between consumers and CPG developers depends on meaningful participation by both. To devise and execute practical solutions to consumer needs, CPG developers need to be aware of and responsive to consumer questions and concerns.

**Implications for guideline developers/users**
Strong and lasting communication between consumers and CPG developers is needed.

## Poster Presentations A

### (PO A-52) Consideration of Other Types of Evidence and the Deliberative Process in the Development of Guidelines

First Author: Christine Lobè – Professional scientist, Institut national d'excellence en santé et en services sociaux (INESSS)
Second Author: Joliane Renaud – Professional scientist, Institut national d'excellence en santé et en services sociaux (INESSS)
Third Author: Monique Fournier – Professional scientist, Institut national d'excellence en santé et en services sociaux (INESSS)

**Background**
To increase the sense of ownership and empowerment of clinical guidelines end users, it is necessary to go beyond the scientific data gathered from literature and consider other forms of evidence.

**Objectives**
To propose and generate discussions on the development of an integrative and systematic approach to considering the other forms of evidence, grading evidence level, formulating and grading strength of guidelines recommendations.

**Methods**
The approach is developed through the literature review of different guidelines process and through consultations of methodologists and clinical guideline's producers.

**Results**
The system proposed is based on the knowledge mobilization framework for clinical guideline development, which considers the evidence (i.e., scientific, contextual and experiential data) and interactions with stakeholders (e.g., health professionals, patients and caregivers) to be the key components required to respond to the needs and contexts of all actors concerned with the final recommendations. The integration of the three types of evidence, respecting the contribution of each, is made through a deliberative process involving a variety of stakeholders, including patients, and intended to facilitate the implementation of the recommendations. The deliberation allows the working group to make judgments leading to the development of recommendations reached by consensus.

**Discussion**
Such an innovative approach to knowledge production and dissemination, which takes into account evidence not only produced for, but by and with the stakeholders, can be defined as multidimensional, organic, multidirectional, dynamic, and dependent on interactions with stakeholders.

**Implications for guideline developers/users**
The framework proposed help to broaden the traditional way to produce guidelines and form a new perspective to improve guideline development.

## Poster Presentations A

### (PO A-53) The Use of Modeling for Economic Evaluations in Practice Guidelines: A Systematic Survey of the Literature

First Author: Veena Manja
Third Author: Elie A. Akl – American University of Beirut
Fourth Author: Jean-Eric Tarride
Fifth Author: Kristina Thayer
Second Author: Gordon Guyatt – McMaster University
Sixth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University

**Background**
Model-based economic analyses are increasingly part of guideline development processes.

**Objectives**
To assess use of economic evaluations in the context of guideline development, assessment of their quality and the impact of their results on recommendations

**Methods**
We searched national guideline clearinghouse for guidelines meeting its 2013 eligibility criteria, using a 'model' keyword search.

**Results**
29/45 reviewed guidelines included statistical modeling, of which 20 were economic evaluations. These included 14 NICE guidelines, 5 guidelines published by agencies in the US and one published by CADTH. 11/14 NICE guidelines developed economic models, including seven submissions by manufacturers. NICE's evidence review group appraised the quality of the modeling process including submissions by manufacturers. The CADTH guideline developed its own economic model following CADTH guidance for development of economic models. Two of the five eligible guidelines published in the US developed specific models, the quality of published economic analyses included in guidelines was not assessed. Results of economic analyses were explicitly considered in recommendations by NICE and CADTH resulting in rejection of three drugs by NICE and a third line therapy recommendation by CADTH. Although economic analyses were included and topic specific cost-effectiveness models developed in some US guidelines, these were not considered in guideline recommendations.

**Discussion**
Significant variation exists among guidelines from different countries in use of economic evaluations, quality assessment of the modeling process and impact of results of economic evaluations on guideline recommendations.

**Implications for guideline developers/users**
Assessment of certainty of evidence is crucial, guidance to facilitate rating of certainty of evidence from modeling studies is urgently required.

## Poster Presentations A

### (PO A-54) Quality Assuring the Process and Methodological Aspects of NICE Clinical Guidelines

First Author: Nichole Taske – Associate Director (Methodology), National Institute for Health and Care Excellence (NICE)
Second Author: Bhash Naidoo – Senior Technical Adviser, National Institute for Health and Care Excellence (NICE)
Third Author: Toni Tan – Senior Technical Adviser, Centre for Clinical Practice, NICE
Fourth Author: Steven Barnes
Fifth Author: Ross Maconachie – Technical Advisor (Health Economics), National Institute for Health and Care Excellence
Sixth Author: Rachel M. O'Mahony – Technical Advisor, NICE

**Background**
Clinical guideline quality has been defined as '..the confidence that the potential biases of guideline development have been addressed adequately and that the recommendations are both internally and externally valid, and are feasible for practice '. Since its inception, an independent quality assurance process has underpinned the development of all NICE Clinical Guidelines. This process has evolved over time and now comprises a complex set of activities and processes that independently and collectively seek to influence guideline quality.

**Objectives**
To outline and describe the NICE clinical guideline quality assurance process.

**Methods**
To narratively describe the key roles, functions, strengths and limitations comprising the NICE clinical guideline quality assurance process with a focus on process and methodological aspects (both systematic reviewing and health economics).

**Results**
Quality assurance in the context of NICE clinical guideline development comprises both prevention and detection activities. Broadly, the process comprises: input into scoping of guidelines; review of draft systematic review questions and protocols; critical review of draft guidelines and responses to stakeholder comments; reporting and team review of 'incidents'; ongoing development of guideline processes and methodologies; training and development of colleagues, committee members and guideline developers.

**Discussion**
Independent quality assurance is integral to the development of NICE Clinical guidelines. There are however, pragmatic constraints to consider when developing a comprehensive guideline quality assurance process.

**Implications for guideline developers/users**
Clinical guidelines are unlikely to ever be technically 'perfect'. Rather, the objective is to ensure they are sufficiently robust and transparent so that their reputation within the wider clinical and academic environment is maintained.

## Poster Presentations A

### (PO A-55) Comparative Analysis of Evidence of Recommendations in Guidelines on Chinese Herbal Medicine and Acupuncture

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Second Author: Shujun Xiao
Third Author: Baosen Wang
Fourth Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Fifth Author: Xiaoqing Wang
Sixth Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University

**Background**
Traditional Chinese Medicine (TCM) including Chinese herbal medicine (CHM) and acupuncture sill play roles in health system, and number of TCM guidelines increase rapidly. But it is still unknown about their evidence supporting the recommendations.

**Objectives**
To compare the supporting evidences of the guideline recommendations on CHM and acupuncture.

**Methods**
We applied a 3 steps method including: 1) establish the search strategy; 2) screen the TCM guidelines from the database; 3) use Excel to extract the related information and conduct statistical analysis.

**Results**
50 CHM guidelines and 5 acupuncture guidelines were included, which contained 756 and 38 recommendations. All of guidelines developed in China. 13(26%) of CHM guidelines reported supporting evidences with included 16 systematic reviews(SRs), 44 RCTs (Randomized Controlled Trials), 8 case control studies, 188 case reports or case series, 20 ancient literatures and 11 expert opinions. All acupuncture guidelines reported the supporting evidences with included 4 SRs, 272 RCTs, 80 case control studies, 656 case reports or case series, 194 ancient literatures and 32 expert opinions. Compared CHM guidelines and acupuncture, the ratios of the supporting evidences of each recommendation respectively were SR 1: 1.0, RCT 1: 23.9, case control study 1: 38.7, case report or case series 1: 13.5, ancient literature 1:37.5 and expert opinion 1:11.3.

**Discussion**
A low proportion of CHM guideline reported the supporting evidences compare with acupuncture guidelines. Each grade of evidences is less than that of the latter.

**Implications for guideline developers/users**
Acquiring much more high grade evidences to support CHM guidelines.

## Poster Presentations A

### (PO A-56) CheckUp Implementation: A Methodological Survey of Updated Clinical Guidelines

First Author: Robin Vernooij
Second Author: Laura Martínez García – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau)
Third Author: Melissa C. Brouwers – Professor, McMaster University
Fourth Author: Pablo Alonso-Coello – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau), McMaster University
Fifth Author: CheckUp Panel

**Background**
The CheckUp (Checklist for Updating reporting) has recently been developed to evaluate the comprehensiveness of reporting the updating process in updated guidelines and to inform guideline developers about reporting requirements.

**Objectives**
1) To assess and rate the comprehensiveness of reporting the updating process in updated clinical guidelines using the CheckUp tool. 2) To test the usability of the CheckUp tool.

**Methods**
We will include a random sample of 100 updated clinical guidelines that meet the following criteria: 1) evidence based clinical guidelines, 2) updated version of a clinical guideline, 3) published in 2015, 4) written in English, 5) available in full text. We will only include one guideline per organisation. We will design and execute a literature search strategy in MEDLINE, the G-I-N library, and the National Guidelines Clearinghouse. Two authors will independently selected guidelines and apply the CheckUp tool. We will inform individual organisations about the results for their specific guideline and the overall results.

**Results**
Recently we have completed the protocol. We will present the preliminary results at the 13th G-I-N Conference (Philadelphia, 2016).

**Discussion**
We will give a first insight in the comprehensiveness of the reporting of the updating processes of clinical guidelines. If necessary, we will propose adjustments to improve the CheckUp tool.

**Implications for guideline developers/users**
The assessment of updated clinical guidelines will inform clinical guideline developers how exhaustive the updating process is reported. It will also likely to enhance the comprehensiveness and transparency of clinical guideline updating process of the organisations sampled.

## Poster Presentations A

### (PO A-57) The Quality Evaluation of Clinical Practice Guidelines Published on Chinese Periodicals in 2015

First Author: Le Li
Second Author: Xiaoli Liu
Third Author: Xueqin Zhang
Fourth Author: Bin Zhang
Fifth Author: Wei Dang
Sixth Author: Xiaoqin Wang
Seventh Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University

**Background**
Clinical practice guidelines (CPGs) are the significant documents that can provide best decisions for clinical workers. Studies showed that the methodological quality of CPGs published on Chinese periodicals before 2015 was low and had obvious disparities when compared with foreign CPGs. There are many Chinese CPGs born in 2015 with unknown quality which needs our attention.

**Objectives**
To evaluate the methodological quality of CPGs published on Chinese periodicals in 2015.

**Methods**
We searched CBM, CNKI and WanFang database for CPGs published on Chinese periodicals from January 2015 to December 2015. The search term included guideline. Researchers assessed the included CPGs with AGREE Ⅱ.

**Results**
A total of 85 CPGs published in 2015 were included. Among them, 12 (14%) guidelines reported the search of literature, 5 (6%) guidelines considered the patients' preference and views, 32 (38%) guidelines performed evidence grading system, 37 (44%) guidelines performed recommendation strength grading system, 2 (2%) guidelines stated the conflicts of interest, 46 (54%) guidelines mentioned evidence-based developing, 5 (6%) guidelines mentioned traditional Chinese medicine, 3 (4%) guidelines are pure traditional Chinese medicine guidelines. The ratio of the 6 domains' scores of AGREE Ⅱ were as follows: scope and purpose (51%), stakeholder involvement (30%), rigour of development (30%), clarity of presentation (67%), applicability (27%), and editorial independence (8%).

**Discussion**
The number of evidence-based guidelines was increased, the methodological quality of CPGs was improved especially on rigour of development and clarity of presentation.

**Implications for guideline developers/users**
The quality of clinical practice guidelines published on Chinese periodicals need to be improved.

## Poster Presentations A

### (PO A-58) Question Selection in the Area of TCM for Cardiovascular Diseases with Systematic Review and GRADE

First Author: Yanmei Li
Second Author: Baosen Wang
Third Author: Wei Deng
Fourth Author: Xiaoqin Wang
Fifth Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University

**Background**
Systematic reviews (SRs), as an approach to synthesizing evidence, can promote effective clinical decisions and topic selection of clinical research.

**Objectives**
To select the top ten research questions in the field of Chinese traditional medicine (TCM) for cardiovascular disease through assessing the evidence quality of SRs with GRADE.

**Methods**
Two reviewers, independently and manually searched four Chinese EBM Journals: Chinese Journal of Evidence-Based Medicine, Chinese Journal of Evidence-based Cardiovascular, Chinese Journal of Evidence-based Pediatrics, Evidence-based Medicine. We included all SRs of cardiovascular diseases treated with TCM, and assessed the quality of evidence using GRADE approach. Evidence with high and moderate quality would be recommended to guideline developers as the basis of guidelines development. Evidence with low and very low quality will be summarized and sent to researchers and funds for further research.

**Results**
Twenty-four SRs were included in total. The quality of evidence was: high 0(0), moderate 0(0), low 77(77%) and very low 23(23%). The top ten questions would be summarized after screening and discussion, which would be presented at the conference.

**Discussion**
It is an effective way to use SRs and GRADE approach to prioritize clinical research questions.

**Implications for guideline developers/users**
It is important for clinical researchers to make some researches in the area of TCM for cardiovascular diseases. Also it is essential to make high-quality Guidelines.

## Poster Presentations A

### (PO A-59) Systematic Analysis of Recommendations in Guidelines for Gout

First Author: Yang Yu
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Fifth Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University

**Background**
Nowadays, there is no study to analyze the recommendations in domestic or foreign gout guidelines.

**Objectives**
To analyze the recommendations in domestic or foreign guidelines for gout systematically.

**Methods**
CBM, website of medlive, Medline, NICE, NGC, SIGN, WHO, GIN, DynaMed, UpTodate and Best Practice were searched for gout management guidelines. Two reviewers independently selected guidelines and extracted data. Any disagreement was solved by discussion or consultation with a third party. EXCEL 2013 was used to analyze the data.

**Results**
Fourteen guidelines were finally included, with a total of 364 recommendations. ①Presentation of recommendations: 12 guidelines (86%) summarized their recommendations separately. For the key items that help identify the recommendations, eleven (79%) used “recommendation”. Five guidelines (36%) highlighted their recommendations with special formats, including boldface type (2, 14%) and color coding (3, 21%). ②Grading of recommendations and evidence: 12 guidelines graded both of quality of evidence and the strength of recommendations; the grading systems included “Oxford Centre for Evidence-based Medicine – Levels of Evidence” (4, 33%), “U.S. Preventive Services Task Force [USPSTF] Ratings” (2, 17%), “GRADE” (1, 8%), no name (3, 25%), and others (2, 17%). ③ Content of recommendations: diagnosis (42, 12%), treatment (206, 57%), prevention (30, 8%), prognosis (3, 1%) and others (83, 23%).

**Discussion**
Recommendations for gout are reported clearly to some extent, and what the guidelines contain covers multiple areas. But the forms of the reporting are different, with different grading standards.

**Implications for guideline developers/users**
Reporting and grading of recommendations in guidelines for gout need to be improved for clear application in clinical practice.

## Poster Presentations A

### (PO A-60) Utilizing a National Database to Disseminate Best Practice CT Radiation Dose Optimization

First Author: Melissa Shaw – DOSE Project Manager, Yale School of Medicine, Emergency Medicine
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Third Author: Debapriya Sengupta
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Seventh Author: Mythreyi Chatfield
Eighth Author: Judy Burleson
Ninth Author: Mannudeep Kalra
Tenth Author: Chris Moore

**Background**
Reduced radiation dose CT (RRDCT) is an effective, underutilized tool for kidney stone CT (KSCT) evaluation.

**Objectives**
The AHRQ-funded Dose Optimization for Stone Evaluation (DOSE) project seeks to develop norms and disseminate guidelines and best practice for RRDCT utilizing a national radiation dose database and expert-based educational platform.

**Methods**
- o The American College of Radiology (ACR) Dose Index Registry (DIR) was queried to establish baseline radiation dose data for RRDCT in kidney stone (KS).
- o Radiation norms are used to develop a Practice Quality Improvement (PQI) initiative and to guide best practice.
- o DOSE will randomize institutions to intervention using the Rad-IQ (www.radiq.org) platform which provides practical CME for implementation of RRDCT.
- o Following randomization, compliance with guidelines will be evaluated with DIR-generated reports.

**Results**
In 2015, 327 facilities contributed 377,176 KSCT exams to the DIR. Overall, less than 10% (N=26,250, 7%) of these KSCT met RRDCT criteria (DLP < 200mGy-cm). The DIR data will provide personalized institutional baseline and follow-up reports with Rad-IQ education for facilities randomized to intervention. We have developed an ACR Part IV Maintenance of Certification requirement KS PQI to guide facilities in implementing RRDCT into clinical practice. We are pursuing a NQF measure and multidisciplinary guidelines for RRDCT in KS imaging.

**Discussion**
This project illustrates the utilization of a national database to develop benchmarks and provide a platform for intervention in achieving radiation dose optimization in CT.

**Implications for guideline developers/users**
Utilization of a national radiation dose database can provide benchmark data for guidelines, development, and dissemination of best practices in national CT use.

## Poster Presentations A

### (PO A-61) Clinical Imaging Guidelines (CIG) Use in CDS: One Year Results with ACR Select incorporation as CDS into EHRs

First Author: Michael A. Bettmann – Prof. of Radiology Emeritus, Wake Forest University School of Medicine
Second Author: Chris Sistrom
Third Author: Keith Dreyer
Fourth Author: Michael Mardini
Fifth Author: Mike Tilkin
Sixth Author: Robert Cooke
Seventh Author: Tom Conti
Eighth Author: Jared Lindaman

**Background**
Imaging is often inappropriately used, for various reasons. CIG incorporation into CDS has been limited and results have been inconclusive.

**Objectives**
ACR Select is a CDS, based on sound CIG (ACR Appropriateness Criteria) supplemented for coverage of all clinical indications/scenarios for which imaging may be considered. It can be incorporated into the EHR from all major vendors, or as a stand-alone. We evaluated its use in image ordering, in the largest actual experience to date.

**Methods**
ACR Select is mandatory in requesting imaging studies >80 institution. Installation is customized, allowing free-text ordering if a specific indication is not thought to be present. All imaging in the CDS is rated: usually appropriate (green); may/may not be appropriate (yellow); not usually appropriate (red).

**Results**
In 2015, 3,546,099 distinct image orders were recorded. 43% were scored in the DSS. 57 % were entered by free text. Per cent free text is decreasing over time. Of 1,599,701 scored requests, 67.2% were green, 20.4% yellow and 12.4% red. %s have remained stable month-to-month, and as the number of institutions increases.

**Discussion**
In the largest practical experience to date, CIG been successfully incorporated in CDS; education, localization and incentives are necessary to ensure complete use of the CDS rules, rather than bypass using free text. Inappropriate requests, as a function of CIG ratings, remain constant at ~12%.

**Implications for guideline developers/users**
In the largest real world application to date, CIG use is feasible. Inappropriate use is less than usually predicted, but universal use appears to require use of synonyms and localization.

## Poster Presentations A

### (PO A-62) Guideline Adaptation and Implementation in Kazakhstan: Challenges and Successes in Central Asia

First Author: Eddy Lang
Second Author: Jessie McGowan – Information Scientist, University of Ottawa
Third Author: Eva Slawecki

**Background**
Middle income countries formerly part of the Soviet Republic face unique challenges in transforming health care delivery to one based on, or at least informed by evidence. From 2010-2015, the Canadian Society of International Health (CSIH) worked in partnership with Kazakhstan's Ministry of Health to achieve national adaptation and implementation of international clinical practice guidelines across a wide range of health domains.

**Objectives**
To highlight key challenges, opportunities and solutions involved in bringing this project to fruition and completion.

**Methods**
From 2010-2013, CSIH developed a 15-step process to select, adapt, and implement one hundred CPGs in Kazakhstan.

**Results**
By the end of 2013, forty-two CPGs were adapted locally by clinical working groups. In 2014, CSIH worked on a 3 month pilot project to implement three CPGs (Karaganda, Almaty and Astana) using 21 key recommendations that were implemented locally. In 2015, CSIH worked in disease management in Petropavlovsk and Pavlodar and further implemented 3 CPGs.

**Discussion**
Key challenges were encountered and addressed in these areas:
1. Customization of many steps to suit country-specific requirements.
2. Copyright permission and translation of international guidelines.
3. Language and translation issues.
4. The use of CAN-Implement as a framework for international guideline adaptation and implementation.
5. Cultural, regulatory and political dimensions of international guideline implementation.
6. Navigating a complex project with numerous stakeholders from the NGO perspective.

**Implications for guideline developers/users**
Local adaptation and implementation of CPGs is a viable approach to modernizing central Asian health care systems. Attention to governance models, existing culture and capacity are key elements in mapping a path to successful uptake.

## Poster Presentations A

### (PO A-63) Characteristics of Questionnaires Used to Assess Barriers of Guideline Implementation: A Scoping Review

First Author: Anna R. Gagliardi – Scientist / Associate Professor, Toronto General Hospital Research Institute / University of Toronto
Second Author: Melina Willson
Third Author: Robin Vernooij

**Background**
It is important to tailor guideline implementation by first assessing potential barriers. Questionnaires can be used to assess barriers. We lack knowledge of the types of questionnaires used for this purpose.

**Objectives**
To describe the characteristics of questionnaires used to assess physician-reported barriers of guideline implementation.

**Methods**
We conducted a scoping review. MEDLINE and EMBASE were searched from 2005 to 2014 for English language studies that described guideline implementation barrier questionnaires. Triplicate study screening and data extraction occurred. Data were summarized on study characteristics, clinical topic, respondent setting and specialty, mode of administration, response options, underlying theory, validation and content domains based on the Flottorp et al. framework of implementation determinants.

**Results**
In total, 174 unique questionnaires were identified (20% cancer, 18% cardiovascular disease). Online administration increased over time as did the number of questionnaires published. No questionnaires were based on theory or validated. All but one questionnaire (99.4%) addressed individual health professional barriers, in particular, self-reported behaviour. The remaining six Flottorp et al. domains and 40 sub-domains were included in few questionnaires, and only ten included a free-text response option to probe for barriers. This did not change over time.

**Discussion**
The identified questionnaires did not thoroughly and reliably assess guideline implementation barriers. Further research is needed to develop and validate a guideline barriers questionnaire.

**Implications for guideline developers/users**
The selection and tailoring of guideline implementation interventions is not informed by valid information about barriers. Guideline developers and implementers may need a standardized questionnaire that could be adapted for their constituents.

## Poster Presentations A

### (PO A-64) Engaging with Health Professionals and Commissioners to Support Implementation of NICE Guidelines

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First Author: Louise Bate
Third Author: Andy Hutchinson – ,
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Fifth Author: Louise Picton – Senior Medicines Adviser, Pharmacist
Sixth Author: Gregory M. Moran – Medicines adviser, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Seventh Author: Johanna Hulme – Associate Director, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence

**Background**
To support implementation of national guidelines into local practice, NICE supports uptake using a number of approaches which involve direct engagement with health professionals and commissioners.

**Objectives**
To examine the benefits of engagement with health professionals and commissioners as support for implementation of guidelines.

**Methods**
NICE has developed three approaches to engagement:
• NICE Medicines and Prescribing Associates Programme (MPAP) consists of health professionals (associates) who develop and support local implementation networks.
• Implementation workshops promote adoption of guidance through face-to-face engagement with stakeholders and discussion of guideline recommendations.
• Shared learning enables guideline users to pass on knowledge and expertise of implementing guidance by submitting local practice examples

**Results**
The approaches have provided an opportunity for users to ask questions relating to the guideline, discuss implementation examples, share learning, facilitate discussions on particular guideline topics and promote resolution where there may be challenges with implementation of guidelines. These maximise engagement with health professionals and organisations.

**Discussion**
Engagement with users of guidelines enables 2-way communication to support users with guideline implementation and an opportunity to feedback to developers about challenges with implementation of recommendations.

**Implications for guideline developers/users**
For successful implementation of guidelines, developers need to be more engaged with users and also consider the implementation challenges faced by users, particularly when resources are limited.

## Poster Presentations A

### (PO A-65) Implementability Evaluation of Draft Recommendations using the Guideline Implementability Appraisal (GLIA) tool

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Fifth Author: Soo Kyung Son – Researcher, National Evidence-based Healthcare Collaborating Agency (NECA)
Sixth Author: Su Jung Lee
Seventh Author: Suk Kyung Hong – Professor, Asan Hospital, University of Ulsan medical school

**Background**
A number of clinical practice guidelines (CPGs) developed in South Korea. However, implementation of the guidelines has not been successful. Therefore, we need to identify intrinsic barriers of individual recommendation and information about extrinsic barriers in domestic situation.

**Objectives**
This study aims to identify intrinsic and extrinsic barriers of implementation for draft recommendations developed in Korea before publishing final recommendation statement.

**Methods**
4 clinicians and 4 methodologists were apprised the 10 draft recommendations about using antibiotics for abdominal trauma patients to identify intrinsic barriers for implementation. And survey was conducted to identify extrinsic barriers expected in domestic situation for about 60 members of the Korean Society of Acute Care Surgery who are the target users of the guideline

**Results**
Of the nine domains of GLIA, 'flexibility' and 'novelty/innovation' domains were appraised as 'N'. It means that they do not meet the criteria and could be considered as barrier. For other domains, overall appraisal was 'Y'. Matter of compensation, incentive and insurance were felt as one of the major obstacle. The most expected barriers when implementing the recommendations about using antibiotics for abdominal trauma were environment aspects including matter of resources and difficulty in cooperation among departments

**Discussion**
Though the contents of GLIA are valuable, there is need to develop domestic instrument which can be used more easily and the more studies about appropriate strategies in domestic situation should also be carried out.

**Implications for guideline developers/users**
Interpretation of the result of "novelty/innovation" domain must be considered separately from the 'clinical effectiveness or value' and 'applicability of the recommendation'

## Poster Presentations A

### (PO A-66) Quality Assurance of Evidence-Based Gastric Cancer Screening in Japanese Communities

First Author: Chisato Hamashima – Section Head, National Cancer Center
Second Author: Akira Fukao

**Background**
The Japanese government introduced endoscopic screening for gastric cancer in 2015 as a public policy based on the Japanese guidelines on gastric cancer screening.

**Objectives**
To provide appropriate endoscopic screening for gastric cancer in Japanese communities.

**Methods**
The necessary items were selected for quality assurance of endoscopic screening for gastric cancer. A quality assurance manual of endoscopic screening that referred to the European guidelines for quality assurance of breast, cervical, and colorectal cancers was developed.

**Results**
The following items were selected as contents of the manual for quality assurance of endoscopic screening for gastric cancer in Japanese communities, and 10 strategies for implementation of endoscopic screening were recommended: 1) Formulation of a committee responsible for implementing and managing endoscopic screening; 2) Development of an interpretation system; 3) Preparation of management and reporting systems; 4) Obtaining informed consent; 5) Avoidance of frequent screenings; 6) Keeping the biopsy rate within 10%; 7) Nonadministration of sedation in endoscopic screening for safety management; 8) Adherence to proper endoscopic cleaning and disinfection; 9) Use of a checklist to achieve optimal program preparation when municipal governments introduce endoscopic screening; and 10) Identification of the aims and roles by referring to a checklist if primary physicians decide to participate in endoscopic screening.

**Discussion**
In the implementation of population-based screening, quality assurance is an essential issue. Even if evidence has been established, the final goal cannot be achieved without appropriate management.

**Implications for guideline developers/users**
To effectively introduce population-based screening nationwide, quality assurance of endoscopic screening for gastric cancer must be carefully considered.

## Poster Presentations A

### (PO A-67) Implementing Guidelines into Chiropractic Teaching Clinics: A Mixed Methods Pilot Randomized Controlled Study

First Author: Marie-Christine Hallé – Postdoctoral Fellow, McGill University
Second Author: Aliki Thomas – Assistant Professor, McGill University
Third Author: Sara Ahmed – Associate Professor, McGill University
Fourth Author: Pierre Côté – Associate Professor, University of Ontario Institute of Technology
Fifth Author: Connie Davis – Adjunct Faculty, University of British Columbia
Sixth Author: Craig Jacobs – Director of Clinical Education and Patient Care, and Assistant Professor, Canadian Memorial Chiropractic College
Seventh Author: Paula Stern – Director of Graduate Studies and Assistant Professor, Canadian Memorial Chiropractic College
Eighth Author: Anthony C. Tibbles – Associate Dean of Clinics and Associate Professor, Canadian Memorial Chiropractic College
Ninth Author: André Bussières – Assistant Professor, McGill University

**Background**
Implementing clinical guideline recommendations on the delivery of Self-Management Support (SMS) during chiropractic training may improve heath outcomes among patients presenting with spinal disorders. However, little is known about barriers to using SMS among chiropractic interns, supervisory clinicians, and their patients.

**Objectives**
1) To identify barriers and facilitators to uptake of SMS in outpatient teaching chiropractic clinics; 2) To evaluate the feasibility, process and effects of implementing a tailored Knowledge Translation (KT) intervention to increase the use of SMS.

**Methods**
A mixed methods design combining qualitative methods and a pilot cluster randomized controlled trial (C-RCT) will be used. Factors influencing uptake of SMS will be assessed using standardized questionnaires, interviews and focus groups with chiropractic interns, supervisory clinicians, decision makers and patients with spine disorders. Results will inform adaptation of a KT intervention. Twenty Patient Management Teams, each composed of 7-9 interns and a supervisory clinician, will be randomly allocated to receive the KT intervention or a copy of the guideline. Feasibility measures (recruitment, adherence and retention rates), and outcomes data related to the interns (use of SMS) and the patients (pain, disability), will be collected. A nominal group technique will be used to seek end-users' views on the implementation process.

**Results**
We anticipate that implementation of a tailored KT intervention will contribute to increase use of SMS among chiropractic interns.

**Discussion**
Results may be a catalyst for supervisory clinicians to adopt SMS.

**Implications for guideline developers/users**
Results may inform the design of a larger C-RCT to test effect of the KT strategy across North-American chiropractic teaching institutions.

## Poster Presentations A

### (PO A-68) Evidence Customisation and Implementation Planning: A Multi-Site Evaluation Study

First Author: Craig Lockwood – Director, Implementation Science, Joanna Briggs Institute
Second Author: Lucylynn Lizerondo
Third Author: Matthew Stephenson
Fourth Author: Margaret Harrison
Fifth Author: Ian Graham

**Background**
A focus on systematic reviews is increasingly synonymous with evidence-based healthcare. However, implementation of best practice still takes up to a decade from publication of reliable findings. It seems, while there are now well established methods to synthesise the best available evidence regarding healthcare interventions, implementation of the evidence within clinical settings remains a distinct challenge. Impact from better evidence requires theoretically sound, methodologically robust planning for implementation and facilitation of stakeholder engagement (Barker et al 2016).

**Objectives**
To develop a contextual and demographic profile of potential users of CAN-Implement© and CAN-Implement.Pro© and describe their initial perceptions of, and intention to use, the framework and software to facilitate evidence customisation and local implementation planning.

**Methods**
A descriptive quantitative study utilising a survey will be applied to capture the demographic characteristics of the participants, including their initial perceptions of, and intention to use, the CAN-Implement© and CAN-Implement.Pro©.

**Results**
Detailed methods and Interim results for phase 1 will be presented.

**Discussion**
The findings of this study will provide important information regarding the short term outcomes of CAN-Implement© and CAN-Implement.Pro©. This information will be valuable in understanding whether, and to what extent these resources are successful in facilitating evidence customisation and implementation planning.

**Implications for guideline developers/users**
Currently, there is lack of guidance on how to adapt evidence or best practice recommendations to local contexts and plan for implementation. If the study objectives are successfully achieved, this research will address this important gap and new knowledge can be gained in terms of evidence implementation.

## Poster Presentations A

### (PO A-69) Adapting Guideline-Based Decision Support for Palivizumab in Response to Updated Recommendations

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Third Author: Dean Karavite
Fourth Author: Jeffrey Miller
Fifth Author: Annique Hogan
Sixth Author: Robert Grundmeier

**Background**
To support identification and management of patients eligible for palivizumab we developed Clinical Decision Support (CDS) using the 2009 American Academy of Pediatrics (AAP) policy statement. We used the Guideline Elements Model (GEM) to link the policy statement to the CDS and allow clinicians to trace CDS-delivered guidance to specific policy statement recommendations. In 2014, the AAP updated the policy statement, changing key eligibility criteria.

**Objectives**
Assess the effort to update the guideline-based CDS to match updated recommendations and identify guideline features that facilitated updating.

**Methods**
We edited the CDS to reflect clinically relevant differences between the updated policy statement and the prior publication. We recorded time spent for update tasks to determine the total project effort.

**Results**
The update took 11 person-hours. The comparison of the policy statements was facilitated by AAP policy statement structure, required 3 hours, and identified 7 clinically relevant differences. Using links between the CDS and the 2009 document, we identified areas of the CDS requiring updates. It took 6 hours to update and test the CDS. Edits included adding 24 lines and deleting 37 lines of code. Validation required 2 hours by a clinical domain expert.

**Discussion**
Content linking during the creation of the initial system facilitated rapid identification of relevant CDS areas requiring revision. AAP policy statement structure and actionable recommendations facilitated this process.

**Implications for guideline developers/users**
Guideline authors involved in revisions should note that recommendations are used for CDS. Well organized guidelines with actionable recommendations can facilitate CDS revisions.

## Poster Presentations A

### (PO A-70) Improving the Tools of Clinical Practice in the Republic of Kazakhstan

First Author: Rano Jilkaidarova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Second Author: Nurgul Tashpagambetova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Third Author: Temirkhan Kulkhan – Deputy Head of Center for Healthcare Standardization, Republican Centre for Health Development

**Background**
one of the missions of the Center for healthcare standardization is information support the implementation of clinical protocols in practical health and educational process as the main tools to improve the quality and accessibility of medical services rendered to the population of the Republic of Kazakhstan. Nowadays hard copies of all clinical protocols are issued in a big volume, which is not convenient to use and leads to enormous outlay on printing.

**Objectives**
identify ways to optimize the access of medical workers to clinical practice taking into account international practice and the principles of evidence-based medicine to make the right decisions medical practitioners with a certain disease and the patient's condition.

**Methods**
research used the results of interviews with experts from the following countries which are also members of the HTAI: Germany, USA, Italy, Canada, Norway. Japan, Korea showed the widespread use of mobile applications and its implementation in practical health care.

**Results**
in 2016 by Republican center for health development is planned development and follow – up of the mobile database of clinical protocols which is relevant in the development of the mobile sector.

**Discussion**
development of the mobile database of clinical protocols is relevant. Since sales of mobile devices for a long time exceeded sales of computers.

**Implications for guideline developers/users**
we will be able to ensure all medical practitioners to use CP with using a mobile database of CP, for the timely and proper make decision in relation to the patient.

## Poster Presentations A

### (PO A-71) Impact of an Evidence-Based Inpatient Utilization Management Model on a Private Brazilian Hospital System

First Author: Maria Ellisa Cabanelas. Pazos – Coordinator Evidence Based Clinical Practice, Amil Assistência Médica Internacional
Second Author: Margaret Wilson
Third Author: Hans Dohmann
Fourth Author: Sidnei Franco
Fifth Author: Alexandre Rosé

**Background**
Significant variations in provider practice and clinical decision-making may result in inappropriate admissions and compromise patient safety. Evidence indicates that an average hospital stay carries a 5.5% risk of an adverse drug reaction, 17.6% risk of infection, and 3.1% risk of pressure ulcers . Each additional night in hospital increases the risk for adverse drug reactions, infections and pressure ulcers by 0.5%, 1.6%, and 0.5% respectively. A study of 3 Brazilian teaching hospitals revealed an adverse event rate of 7.6% with an incidence of 0.8 adverse events per 100 patient-days (accounting for 103 of 13,563 patient-days) .

**Objectives**
To implement a comprehensive, evidence-based inpatient utilization management model in Amil. Amil is Brazil's largest health care company. Services provided include medical benefits and hospital services.

**Methods**
MCG© care guidelines was implemented in all Amil hospitals in May 2015. MCG© care guidelines offer providers point-of-care and web-based access to evidence-based guidelines that support clinical decision-making. Guidelines include condition-specific recovery milestones that enable proactive discharge planning

**Results**
Implementation of this evidence-based model resulted in length of stay reduction of 17% and 8% in Rio de Janeiro and São Paulo hospitals respectively (two major regions of Brazil). Bed day utilization decreased by 20.3 bed days/ 1000 members (11%) by the fourth quarter of 2015.

**Discussion**
This translates into a potential reduction of 1247 adverse events in hospitalized patients within the Amil healthcare system

**Implications for guideline developers/users**
Provider adherence to evidence based clinical practices and efficient knowledge translation enhances quality of care, length of stay management and patient safety in hospitals.

## Poster Presentations A

### (PO A-72) Implementation of Sickle Cell Disease Guidelines: A Multi-Stakeholder Meeting

First Author: Starr Webb – Manager, Clinical Quality Projects, American Society of Hematology
Second Author: John J. Strouse
Second Author: Alexis Thompson
Fourth Author: Robert M. Plovnick – Director of Quality Improvement, American Society of Hematology

**Background**
Guidelines addressing complex illnesses can be challenging to implement because they address care by clinicians from diverse specialties. Recent guidelines by the National Heart, Lung, and Blood Institute (NHLBI) address sickle cell disease (SCD), an inherited group of red blood cell disorders that affects every organ in the body. A multidisciplinary meeting was convened to discuss an implementation strategy for the guidelines.

**Objectives**
To identify dissemination and implementation opportunities to increase widespread adoption of the NHLBI SCD guidelines among relevant stakeholder groups.

**Methods**
36 individuals representing 24 organizations met for a one-day strategy session. Perspectives included medical professionals, patients, professional society staff, and government. Prior to the meeting, stakeholders electronically prioritized guideline sections, types of dissemination/implementation activities, and reported examples of current activities. Survey results were used to structure the meeting's discussions. During the meeting, breakout groups brainstormed activities in all six major guideline topic categories as prioritized by the survey.

**Results**
A targeted list of implementation opportunities was identified. Stakeholders will be asked to lead or serve as collaborators for specific implementation activities.

**Discussion**
This one day meeting laid the foundation for a dissemination and implementation plan and enabled collaboration amongst a diverse group of stakeholders. Future efforts will focus on how to keep stakeholders engaged in the development of priority activities.

**Implications for guideline developers/users**
Other guideline developers could utilize diverse attendance, pre-meeting survey, breakout sessions, and stakeholder follow-up to yield actionable dissemination and implementation opportunities.

## Poster Presentations A

### (PO A-73) OrthoGuidelines: An AHRQ Funded Initiative to Incorporate AAOS Clinical Practice Guidelines into Episodes of Care

First Author: Kaitlyn S. Sevarino – Evidence-Based Quality and Value Coordinator, American Academy of Orthopaedic Surgeons
Second Author: Ryan Pezold – Lead Research Analyst, American Academy of Orthopaedic Surgeons

**Background**
In the orthopaedic healthcare environment, technology was not used to disseminate evidence-based initiatives. Clinicians could only access clinical practice guidelines (CPGs) via large published reports; recommendations could not be searched and multiple guidelines could not be accessed concurrently.

**Objectives**
To promote the use of technology via a mobile platform that allows clinicians and the public to access and review AAOS CPGs and appropriate use criteria (AUC) in a quicker, more concise manner.

**Methods**
Member surveys were accessed to gauge the receptiveness of the orthopaedic community to mobile technologies. A mobile optimized website dubbed OrthoGuidelines was created with AAOS CPGs and AUC and pilot tested with five orthopaedic residency programs.

**Results**
We developed both a responsive web platform and an app native to the mobile device for both Android and iOS, housing AAOS CPGs and AUCs. Users can navigate all recommendations by keyword, disease, strength of evidence, specialty, or stage of care. OrthoGuidelines is laid out with concise guideline and recommendation topics to aide in quick navigation and comprehension. It provides evidence-based recommendations at the point of care to assist clinicians with clinical and shared decision-making.

**Discussion**
OrthoGuidelines was developed and released in response to a user desire for more user-friendly dissemination strategies for CPGs and AUCs, and response has been strong, with over 1,800 Android Installs, 3,100 iOS Installs, and thousands of website hits since launching 2015.

**Implications for guideline developers/users**
This tool enables the use of CPGs by clinicians and patients at the point of care, minimizing usage barriers across platforms for quicker and more concise information.

## Poster Presentations A

### (PO A-74) How Large, Private Healthcare Organizations Use Clinical Preventive Services Guidelines: A Qualitative Study

First Author: Iris R. Mabry-Hernandez – Medical officer, Agency for Healthcare and Quality
Second Author: Julia Doherty – Senior Research Director, L&M Policy Research, LLC
Third Author: Quyen Ngo-Metzger, – Scientific Director, Agency for Healthcare Research and Quality

**Background**
The U.S. Preventive Services Task Force (USPSTF) and professional organizations disseminate recommendations or guidelines on clinical preventive services. Although the literature has documented how guidelines are applied across certain conditions, it is uncertain how large, private healthcare organizations translate guidelines in primary care settings.

**Objectives**
Researchers conducted key informant interviews with leaders of large, healthcare organizations to examine how they adopt, adapt, disseminate, and incentivize adherence to recommendations and the barriers encountered in fostering guideline adherence among clinicians.

**Methods**
Researchers conducted semi-structured interviews with executives of nine large, private healthcare organizations, with patient enrollment in the millions. The Consolidated Framework for Implementation Research informed the discussion guide. Interview notes were incorporated into a database and sorted into categories. Researchers identified key themes across the key informant interviews.

**Results**
Healthcare organizations' guideline review and refinement processes determine the impact of USPSTF recommendations. These processes are shaped by internal and external factors such as organizational culture, physician engagement, and payer contracts. Evaluation of clinical preventive services is part of broader performance monitoring and quality improvement efforts. Challenges to guideline adherence include competing demands on providers' time and cumbersome electronic health record platforms that are difficult to navigate and update.

**Discussion**
These large, geographically diverse organizations show several crosscutting themes and offer insight about how recommendations are disseminated and implemented within large healthcare systems.

**Implications for guideline developers/users**
Addressing barriers would help guideline developers and users optimize dissemination and implementation.

## Poster Presentations A

### (PO A-75) Adherence in the United States to the Clinical Practice Guidelines on Tympanostomy Tubes in Children

First Author: Iris M. Tam – Vice President, Patient Access & Quality, Otonomy
Second Author: Sean D. Candrilli – Head, Health Economic, RTI Health Solutions
Third Author: Jonathan R. Moss – Medical Director, Charlotte Eye, Ear, Nose, and Throat Associates

**Background**
Guideline adherence tends to be poor with the reasons why not fully understood. Lack of a detailed evidence base, transparency, quality, and trust in guidelines may be valid reasons, among others. Certain guideline bodies such as the American Academy of Otolaryngology (AAO) explicitly follow the recommended Institute of Medicine (IOM) standards for developing trustworthy guidelines to encourage evidence-based practice within the specialty.

**Objectives**
To evaluate adherence to AAO's guideline recommendation to use topical instead of oral antibiotics for otorrhea in children with tympanostomy tubes (TT) in place.

**Methods**
Using medical and pharmacy insurance claims, pediatric patients who had TT placement between 1/1/2010 and 12/31/2013 with ≥1 years of continuous insurance coverage were included. Medical encounters (physician office or emergency room visits) with an otorrhea diagnosis were identified. Antibiotic prescriptions (RX) filled within 3 days before or after the encounter were analyzed.

**Results**
Of 14,525 patients who met all inclusion criteria, 1,783 (12.3%) received an oral RX only, 4,297 (29.6%) received a topical RX only, 4,302 (29.6%) received both oral and topical RX, and 4,143 (28.5%) received no RX. Of the 10,382 patients who received a RX, 6,085 (41.9%) and 8,599 (59.2%) received oral and topical antibiotics, respectively.

**Discussion**
AAO guidelines recommend that topical (i.e., eardrops), not oral, antibiotics be used for post-TT placement otorrhea. This study suggests that topical antibiotics are prescribed more frequently than oral, however, a substantial number of patients received orals.

**Implications for guideline developers/users**
Guideline development that follows the IOM standards is critical; however, ensuring guideline adherence remains a formidable challenge.

## Poster Presentations A

### (PO A-76) Use of a Pathway Approach to Identify Areas for Indicator Development

First Author: Nicola Greenway – Technical Analyst
Second Author: Shaun Rowark
Third Author: Sabina Keane
Fourth Author: Mark Minchin
Fifth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
We work with an Indicator Advisory Committee (IAC) to develop indicators for quality improvement. A new process for indicator development has been produced that uses a pathway approach.

**Objectives**
To describe the new process, and the challenges and benefits of introducing this approach, using atrial fibrillation (AF) as an example.

**Methods**
For any clinical topic, a care pathway can be defined by its component care areas and overarching outcomes. Existing indicators are mapped against the care areas along the pathway. The IAC is asked to review the pathway, and identify gaps that represent potential areas for new indicator development.
The IAC considered the map of current indicators across the pathway for AF, and reviewed the scope for new indicators to contribute to overarching outcomes such as the incidence of stroke attributable to AF.

**Results**
From IAC discussions, several new AF indicators were identified. These were progressed for further development.

**Discussion**
This approach enabled the IAC to identify pathway gaps with no current indicators and where new indicators may have the potential to drive quality improvement. The incorporation of overarching outcomes informed IAC decision on the most appropriate focus for new indicators for an effective contribution to improving key outcomes such as reduced incidence of stroke.

**Implications for guideline developers/users**
Indicator developers can benefit from considering a pathway approach as we develop more outcome-focused indicators. The presentation within guidelines in terms of pathways and identification of outcomes the guidance is intended to achieve can help define these care pathways and our understanding of the key overarching outcomes.

## Poster Presentations A

### (PO A-77) Mobile Health (mHealth): Safety, Efficacy, Privacy, and Regulation

First Author: Susan Birkhoff – MSN, RN, PhD Student, Villanova University

**Background**
Mobile health (mHealth) technology is assuming an increasing prominent role in many aspects of our daily lives, as smartphone ubiquity, usage, and ownership surges. Mobile health innovations have the potential to manage health on the go and in-real time due to the easy access of smart devices by their owners.

**Objectives**
The aim of this paper is to present applicable regulatory frameworks, identify important health care stakeholders, and discuss potential safety, regulatory, and research solutions in an attempt to shape future policy development.

**Methods**
Databases used to construct this paper included: PubMed, EBSCO megafile, and Google Scholar. The following search terms were used: mobile health, mhealth, smartphone apps, regulation, and public policy.

**Results**
Forty-nine articles were used to provide a comprehensive overview of the emerging mobile health field, as well as explaining its place within the current federal regulatory frameworks and its impact on health care.

**Discussion**
Because of the novelty of the mobile health field, research is still in the early phase, and no comprehensive federal policies exist among the various governmental agencies to ensure the efficacy of mobile health offerings, nor the safety and privacy of its users.

**Implications for guideline developers/users**
Potential solutions are explored to protect users, as well as influencing future policy crafting and implementation.

## Poster Presentations A

### (PO A-78) Multimorbidity: A Challenge for Health Services for an Aging Population

First Author: Mohammad Nazmus. Sakib – Graduate Student, University of Manitoba

**Background**
Multimorbidity is primarily an age-related condition which is defined as the presence of two or more chronic diseases in an individual, where one is not necessarily more central than the others. Multimorbidity is regarded as one of the major challenges for current health care system.

**Objectives**
This poster demonstrates the impact of multimorbidity and the need for possible future system reform to best deal with the current situation.

**Methods**
I accessed a variety of literature to focus the evaluation design and models most relevant to chronic illness prevention. In addition, evidence-based models were evaluated across articles.

**Results**
I illustrated the Chronic Disease Indicator Framework and Chronic Care Model which are important for management of chronic diseases. Chronic disease indicator framework contains 41 indicators which are organized into 6 core domains. It is identified as the useful tools for the evidence-based decision-making process. Chronic care model identifies 6 fundamental areas to facilitate high-quality chronic disease management by promoting productive interaction between patient and care provider.

**Discussion**
The chronic disease indicator frameworks are useful to interpret the trends of chronic diseases and to develop public health interventions whereas interventions based on chronic care model shows to improve outcome measures, reducing health care cost and lower the usage of health care services.

**Implications for guideline developers/users**
Our conventional health care system still focuses on single diseases management approach while neglecting the complex need of multimorbid patients. The comprehensive knowledge on multimorbidity that illustrates in the poster would help to identify future focus area for chronic disease management.

## Poster Presentations A

### (PO A-79) GAPSKO (Guidelines APpraisal System of KOrea); Means to Improve the Quality of CPG Appraisal of Korea

First Author: You K. Lee – Professor, Soonchunhyang University Bucheon Hospital
Second Author: Woong Ju
Third Author: Jae G. Kim – Director of Internall Medicine, Chung-Ang University College of Medicine, Chung-Ang University Hospital
Fourth Author: Sung-Goo Chang

**Background**
The Korean Academy of Medical Sciences ('KAMS') has been doing a leading role for CPG appraisals in Korea. KAMS developed the Korean AGREE II scoring guide ('scoring guide') and the web-based appraisal system for improving the quality of appraisal.
The scoring guide is developed to reduce inter-rater differences in 2012. KAMS believes this guide an effective tool for reducing the inter-rater disagreement and improving the overall reliability of CPG appraisals in Korea.

**Objectives**
Well organized system build-up for improving the quality of CPG appraisal as well as CPG development in Korea.

**Methods**
Round-table brainstorming meeting

**Results**
The GAPSKO (Guidelines APpraisal System of KOrea) which is an appraisal system for clinical practice guidelines ('CPGs') of Korea managed by the Expert Committee for CPGs Appraisal ('ECCA'), is launched in 2016.

**Discussion**
GAPSKO has two main programs, one is a CPG appraisal program and the other one is a training program for peer reviewer. Peer reviewers of GAPSKO is trained and approved by KAMS. GAPSKO uses AGREE II instrument with the scoring guide for CPG appraisal. ECCA has 3 working groups including a CPG development planning, a CPG developing method, and a CPG implementation strategy. Each working group has a leading role in making Korean standards for each AGREE II items and educating peer reviewers and CPG developers. GAPSKO has 2 training programs for incubating new reviewers and maintaining reviewer's ability.

**Implications for guideline developers/users**
GAPSKO is structured attempt to improve the quality of CPG appraisal as well as CPG development of Korea.

## Poster Presentations A

### (PO A-80) Mapping Evidence Types for Public Health and Social Care Guidelines

First Author: Aedin McSloy – Assistant Technical Analyst, National Institute for Health and Care Excellence
Second Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Third Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Public health and social care (PH&SC) guidelines draw on evidence and knowledge from a spectrum of sources, using different methodologies and approaches. This includes explicit, systemic and reliable scientific and social scientific methods as well as models, theories, expert testimony, consultation and practice.

**Objectives**
To
• explore evidence types (ET) used to develop national PH&SC guidelines
• consider how different ETs inform recommendations

**Methods**
A purposive sample from PH&SC guidelines was selected. A simple classification system was developed for review questions (RQ) and ET. For each guideline we extracted and classified the RQ and ET, and how this linked to recommendations.

**Results**
ET varies across and between guidelines. Due to the project's exploratory nature, we are not able to draw wider conclusions on types of questions or areas where different types of knowledge are used; however, areas were identified that appeared more likely to use a wider range of knowledge – either because of the topic area or RQ.

**Discussion**
PH&SC guidelines use evidence from a wide range of sources. The identification and use of different ET will depend on the RQ and the type of review required.

**Implications for guideline developers/users**
Documenting the range of ET used in PH&SC guidelines improves transparency of decision making. For developers, it can also be used to assess the value of using a range of ET in guideline development.

## Poster Presentations A

### (PO A-81) Understanding Pay for Performance Programs in Healthcare

First Author: Aaron Mendelson – Research Assistant, Portland VA Evidence-based Synthesis Program
Second Author: Karli Kondo
Third Author: Cheryl Damberg
Ninth Author: Devan Kansagara
Fourth Author: Makalapua Motu'apuaka
Fifth Author: Michele Freeman
Sixth Author: Maya O'Neil
Seventh Author: Rose Relevo
Eighth Author: Allison Low

**Background**
Pay for performance (P4P) programs have been increasingly implemented to improve quality in a variety of health systems. Recent reviews have generally found insufficient evidence to broadly characterize the balance of harms and benefits.

**Objectives**
We sought to better understand the effect of P4P on process of care and patient outcomes in ambulatory and hospital settings.

**Methods**
We searched PubMed, PsycINFO, and CINAHL, and unpublished sources through April 2014. We included studies comparing P4P programs. Two investigators abstracted data and assessed study quality.

**Results**
We reviewed 1,363 titles and abstracts and included 45 studies. Overall, we found that P4P programs in ambulatory settings has the potential to improve the proportion care process in the short term. However, there was insufficient evidence that P4P can improve care processes over the long term or patient outcomes over any time period.

**Discussion**
Despite numerous examples of P4P programs, the heterogeneity inherent in each health system, the challenges related to evaluating multicomponent interventions, and a wide variation in study design and quality preclude us from drawing strong conclusions that can be broadly applied.

**Implications for guideline developers/users**
Given the growing importance of these programs, it is crucial for researchers and policy makers to understand program attributes that could make P4P more effective. High quality research is needed to not only better understand the benefits and harms, but also to disentangle the individual effect of each intervention, and to clarify how payment size, structure, timing, and underlying payment system influence P4P effectiveness.

## Poster Presentations A

### (PO A-82) Providing Epidermolysis Bullosa Patients with Appropriate Clinical Guidelines in Ukraine

First Author: Ievgeniia Melnyk – Head of the Department of Evidence-Based Medicine, Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine
Second Author: Olena Lishchyshyna – Head of the Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine
Third Author: Ievgeniia Rubtsova – Expert, Medical Care Standardization Board, State Expert Centre of the Ministry of Health of Ukraine

**Background**
Among orphan diseases associated with genetic disorders, a number of states have already been covered with clinical guidelines. These include mucopolysaccharidosis, Gaucher disease, phenylketonuria. Recently the work on documents on Epidermolysis bullosa treatment, which lasted almost a year, has been finished.

**Objectives**
Providing orphan diseases patients with appropriate clinical guidelines in Ukraine although improved in recent years remains insufficient. The absence of treatment protocols for Epidermolysis bullosa in Ukraine created obstacles for the provision of quality care for patients with this pathology.

**Methods**
The Multidisciplinary Working Group for the development of medical and technological documents on Epidermolysis bullosa, which included leading specialists in genetics, dermatology, neonatology and paediatrics, has analysed the available sources of evidence-based literature on the subject.

Results
As a result, there were developed adapted clinical guideline and unified clinical protocol in which new approaches to the management of the disease based on evidence were introduced.

**Discussion**
Manifestations of Epidermolysis bullosa substantially affect the quality of life of patients and their families not only physically, but also in psychological and social aspects. Epidermolysis bullosa is a disease that manifests itself not only by skin lesions, but also of mucous membranes, which leads to complications in other organs. Therefore, the work was carried out using a multidisciplinary approach to diagnosis and treatment.

**Implications for guideline developers/users**
The data from international associations and experts from the USA and Europe were analysed concerning their applicability in Ukrainian health system. As consequence, there were created high-quality documents based on critical assessment of existing clinical approaches in national and foreign practice.

## Poster Presentations A

### (PO A-83) Populations to People, Lifestyle to Outcomes: A Whole-System Approach to Identifying Indicators On Prevention

First Author: Tony Smith – Technical Adviser,
Second Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Third Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence
Fourth Author: James McGowan

**Background**
There is a link between lifestyle, avoidable morbidity and healthcare-related outcomes. A focus on prevention is a key national strategy. Indicators on prevention are under-represented in some national frameworks.

**Objectives**
To define a whole-system framework covering the links between evidence and guidelines, and lifestyle to outcomes, to identify potential indicators with a focus on prevention.

**Methods**
An initial framework describes the focus of public health guidance, its intended impact on lifestyle, and the link between lifestyle and the risk of chronic ill-health. It shows how current indicators focus on the response to ill-health through care processes and outcomes. It provides scope for the consideration of indicators further upstream, relating to prevention. The framework was informed by, and mapped to, key national and regional policy initiatives on prevention.

**Results**
The initial framework on prevention indicators was discussed by our Indicators Advisory Committee. Based on committee feedback, the framework will be developed and specific suggestions for indicators on prevention drafted for consideration by the committee.

**Discussion**
A whole-system approach can help to strengthen existing indicator sets to make a contribution to a key area of national policy, on prevention. Work to date represents a test of the concept, which we intend to review with key national and regional policy stakeholders.

**Implications for guideline developers/users**
Guideline developers should consider how to demonstrate links to outcomes to inform additional quality improvement activities such as indicator development.

## Poster Presentations A

### (PO A-84) A Very Low Number of National Adaptations of the WHO Guidelines for HIV and Tuberculosis Reported Their Processes

First Author: Mohammad W. Godah – Trainee, The American University of Beirut (AUB) GRADE Center, Clinical Research Institute (CRI), AUB, Beirut, Lebanon
Second Author: Rima A. Abdul Khalek
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Seventh Author: Andrea J. Darzi
Eighth Author: Holger J. Schünemann – Chair, Department of Clinical Epidemiology & Biostatistics, McMaster University
Ninth Author: Elie A. Akl – American University of Beirut

**Background**
Low and middle-income countries are opting for adapting WHO guidelines instead of 'de novo' guidelines' development for a variety of financial, epidemiological, socio-political, cultural, organizational and other reasons.

**Objectives**
The objective of this study was to systematically evaluate the reporting of processes for the national adaptation of WHO guidelines for HIV and Tuberculosis.

**Methods**
We identified documents describing HIV and TB national guidelines from three online databases/ repositories: the USAID AIDSTAR-One National Treatment Database; the AIDSspace Guideline Repository and WHO Database of national HIV and TB guidelines, 2005-2011. We reviewed those documents and assessed the rigor and quality of any reported adaptation methodology using a 23-step scale based on the ADAPTE document as benchmark.

**Results**
We identified 170 eligible guidelines listed in the three databases. Only 32 (19%) guidelines had reported documentation on the process of adaptation. Only 7% reported conflict of interest disclosures. The median score and inter-quartile range (IQR) of the number of steps out of the 23 ADAPTE steps fulfilled by the eligible guidelines were 11.5 (10, 13.5). A relatively high number of reported adaptation methodologies met steps relevant to the setup phase while very few or none met steps relevant to the adaptation phase.

**Discussion**
The failure in reporting steps relevant to the adaptation phase might be due to the lack of a widely accepted adaptation methodology or the lack of expertise in this area.

**Implications for guideline developers/users**
Future adaptations of WHO guidelines need to use a standardized methodology and report on their steps in an explicit and transparent way.

## Poster Presentations A

### (PO A-85) Implementation Strategy for Evidence-Based Decision Making in Korea

First Author: Yoon Jung Choi – Head Researcher,
Second Author: Youn Song Choi

**Background**
The Health Insurance Review and Assessment Service (HIRA) in South Korea is responsible for the benefit claims review, quality assessment, and the setting and management of benefit standards in the National Health Insurance (NHI). The role of Expert Committees in HIRA are review and evaluation related to the NHI reimbursement.

**Objectives**
As the committee is efficiently processed in HIRA, the challenge is needed for the evidence-based operating system to make the document guideline and to improve the expertise for the employee in HIRA.

**Methods**
We systematically collected and reviewed relevant information to describe the supporting system. The main focus is two parts. One is to provide standardized format for the document based on a manual. The other is a cultivation program for HIRA's human resources.

**Results**
To build up an evidence-based decision making system, formal education programs about EBRM is established for employees who belong to a department that operates the committee. According to the guideline, the standard format documents are produced for the efficient decision making process. EBRM Masters are cultivated by the human resource program for the evidence-based supporing role.

**Discussion**
Currently, HIRA has tried to maintain validity of EBRM and to develop the education program. Value Appraisal Standard is adopted in Medical Materials Listing procedure in 2015. HIRA tried to make efforts for the advancement of evidence-based decision making system.

**Implications for guideline developers/users**
HIRA in South Korea has tried to maintain validity of EBRM and to develop the education program.

## Poster Presentations A

### (PO A-86) VHA Hypoglycemia Safety Initiative: VA Great Lakes Health Care System Pilot

First Author: Sandra Calenda – Clinical Pharmacy Specialist, VA Great Lakes Health Care System
Second Author: Samantha Wright – Clinical Informaticist, VA Great Lakes Health Care System
Third Author: Donna Leslie – VISN 12 Pharmacy Executive, VA Great Lakes Health Care System
Fourth Author: Mark McConnell – Primary Care Physician, VA Great Lakes Health Care System
Fifth Author: Leonard M. Pogach – Research Physician, Department of Veterans Affairs New Jersey Healthcare System

**Background**
Since 2012, many national organizations have encouraged an increased awareness and evaluation of hypoglycemia risk. The VA Great Lakes Health Care System, comprised of seven medical centers, implemented a program to identify and evaluate patients at high risk for hypoglycemia.

**Objectives**
To promote and document shared decision making (SDM) with diabetes treatment in a population of patients at high risk for hypoglycemia.

**Methods**
The program began in March 2012 and uses an integrated approach that includes multi-disciplinary education, electronic medical record (EMR) tools, and online panel reports. Medical centers utilize an EMR-based clinical alert and online panel reports to identify patients at high risk for hypoglycemia. Clinicians complete an EMR template to record the frequency and severity of hypoglycemia and document the SDM regarding treatment.

**Results**
A 6.8% absolute and 19.0% relative reduction in the percent of high-risk patients with A1c less than 7% was observed: 35.7% in 2012 (n=4,185); 31.7% at one year (n=4,266); and 28.9% (n=4,087) at three years. Since 2012, nearly 7,200 patients have been evaluated using the EMR template. To date, the evaluation rate for high-risk patients assigned to primary care is 85.5%. Hypoglycemia was reported by 27.5% of those evaluated, with 56.2% of these patients making a shared decision with their provider to relax treatment.

**Discussion**
Focusing on hypoglycemia risk management, this program effectively leverages clinical decision support tools to identify high-risk patients and document shared decision making.

**Implications for guideline developers/users**
Identifying a specific, manageable patient cohort using electronic methods allows the provider to focus time on the SDM process.

## Poster Presentations A

### (PO A-87) Measuring Preventable Outcomes: Global CV Risk Score (GCVR)

First Author: Ben Hamlin – Research Scientist, NCQA

**Background**
Global Cardiovascular Risk (GCVR) is a predictive measure that quantifies how well clinicians manage risk using electronic clinical data. The score denotes the current risk profile relative to an optimal scenario for the patients for whom the practice is accountable.

**Objectives**
A patient-specific risk profile is needed in order to prioritize those factors most relevant to a clinician's ability to manage CV risk on a patient-by-patient basis.

**Methods**
NCQA generated provider-level GCVR scores from four organization's EHRs. Each site provided detailed feedback on their experiences as their thoughts on more meaningful quality measures

**Results**
GCVR scores were generated for 2,251 clinicians using 277,780 of the patient records. Based on the interviews, clinicians are using clinical guidelines to direct care and are willing to engage patients in discussing different risk reduction strategies.

**Discussion**
A shift towards a precision medicine quality measurement presents new questions for clinicians: Once you have a very specific risk profile of your patients, what should you do with this information? Access to sophisticated, technology that can parse big data and track patients' optimal treatment targets removes the perverse incentive inherent in current quality measure programs, allowing clinicians to focus on the whole patient.

**Implications for guideline developers/users**
Using quality reporting as a framework for advancing standardization of clinical system communications will ideally achieve the goal of increased data accuracy, timeliness of results, and reducing the burden associated with reporting quality measures. Caution is required however, as what may be useful for describing a population may not easily scale to effective management of an individual patient.

## Poster Presentations A

### (PO A-88) Guideline 'Acute Surgery': An (Individualised) Classification System for Acute Surgery Patients

First Author: Antoon Lamberts – Guideline developer/advisor, Kennisinstituut van Medisch Specialisten / Knowledge Institute of Medical Specialists
Second Author: Baucke van Minnen – Craniofacial surgeon, University Medical Center Groningen
Third Author: Teus van Barneveld – Managing Director, Kennisinstituut van Medisch Specialisten / Knowledge Institute of Medical Specialists
Fourth Author: Noor de Cort – Medical Student, Faculty of Health, Medicine and Life Science, Maastricht University
Fifth Author: Pieter Lubbert – Trauma surgeon and chair of the working group Acute Surgery, Hospital Tjongerschans

**Background**
The optimal time-to-surgery for conditions requiring acute surgical care is often not known. Straight from ER to OR may sound like the best option, but is seldom possible. Which patients should receive priority and why?

**Objectives**
1. Develop a nationwide classification system to optimise organizational aspects / care-pathways for patients requiring acute surgery and incorporate this system in the guideline 'Acute Surgery'.
2. Identify patient-related factors, based on which a patient classification can be altered.

**Methods**
A survey was conducted among all hospitals in the Netherlands to explore which classification systems to prioritise patients were used. Using the information gathered a common denominator was identified and a nationwide system was proposed.

**Results**
In total 91 hospitals were asked to share their system, 42 hospitals replied. Based on this inventory, the working group proposed a system with four categories. A set of patient-related factors such as age, frailty and pain was constructed based on which a patient' classification could be upgraded or downgraded. With the use of literature case-studies a patient related scoring system will be added to the classification system, to facilitate individualised prioritisation.

**Discussion**
A high level of agreement in expert opinion between medical specialists about the proper category for the majority of medical conditions was found. However, the working group experienced difficulties in gathering scientific evidence for organizational aspects of healthcare.

**Implications for guideline developers/users**
We conclude, in addition to guidelines with a true medical content, guidelines can also be used to address organisational questions. However, in developing organisational guidelines difficulties are experienced using the traditional EBRO methodology.

## Poster Presentations A

### (PO A-89) Increasing the Visibility of Multiple Chronic Conditions Guidelines in the National Guideline Clearinghouse

First Author: Lisa T. Haskell – Project Manager - National Guideline Clearinghouse, ECRI Institute
Second Author: Mary Nix – Acting Director, Division of Decision Science & Patient Engagement; Center for Evidence and Practice Improvement, Agency for Healthcare Research and Quality

**Background**
Although guidelines addressing multiple chronic conditions (MCCs) are represented in the Agency for Healthcare Research and Quality's (AHRQ's) National Guideline Clearinghouse (NGC), there was no obvious way to identify them.

**Objectives**
1) To build off prior work of describing NGC's approach to defining MCCs, identifying relevant guidelines, enhancing the search function to retrieve these guidelines, and displaying them in a Responsive Web Design environment and 2) to demonstrate the MCC enhancement and provide an opportunity for feedback.

**Methods**
We used criteria derived from the guideline literature to define MCCs and search for and identify MCC-relevant guidelines included in NGC. We considered only guidelines with recommendations that provided details regarding treatment of MCCs. We revised NGC summaries to display the conditions addressed and tagged them for retrieval by the NGC search engine. We designed an MCC filter in our search results to facilitate retrieval of these guidelines.

**Results**
The enhancement to increase visibility of MCC guidelines will appear on the NGC Web site in the summer of 2016. The number of MCC guidelines, baseline web analytics, and designs will be showcased.

**Discussion**
We were able to successfully combine expert input from the guideline community, information specialists, and web site designers to build this new enhancement that makes MCC guidelines easier to find, compare, use, and disseminate.

**Implications for guideline developers/users**
Interest in guidelines addressing MCCs has increased. NGC provides more prominence to those guidelines.

## Poster Presentations A

### (PO A-90) Terminology Management in Guideline Development: Early versus Late Binding of Synonyms

First Author: Craig J. Whittington – Global Head of Quality, Methodology and Innovation, Doctor Evidence
Second Author: Sandra Zelman. Lewis – Chief Guidelines Officer, Doctor Evidence
Third Author: Sean Byers – Ontology Specialist, Doctor Evidence
Fourth Author: Alicia Clausel – Ontology Specialist, Doctor Evidence
Fifth Author: Augusta Crumrine – Ontology Specialist, Doctor Evidence
Sixth Author: Jacob Franek – Director of Methodology, Doctor Evidence
Seventh Author: Erin Murray – Senior Methodology Lead, Doctor Evidence
Eighth Author: Tobias Sayre – VP Client Solutions, Doctor Evidence
Ninth Author: Robert Battista – CEO, Doctor Evidence

**Background**
When synthesizing evidence during guideline development, one common issue is the multitude of terminology in primary research that varies by country, therapeutic area, researcher, time etc. A software solution called "late binding" that preserves the original terminology, efficiently accommodates synonyms and utilizes a variety of medical ontologies, is now available. Semi-automated, the system learns from previous bindings. Terms can also be "unbound" or "rebound" when such distinctions are relevant. The true power of this approach can be seen when conducting multiple reviews for a single guideline or across a guideline program. Consider even a relatively modest review of 20 studies with 7 outcomes and the associated study characteristics: synonym management is usually done during extraction when differences in terminology could amount to hundreds of decisions made by those extracting data, with little transparency. In cases where terms are true synonyms, this may not represent a problem. However, different variables representing what is thought to be the same construct are often bound together using subjective and poorly defined criteria. We believe that the perseveration of author reported terms, using a software platform with late binding methodology, is vital to accurate medical terminology management within guidelines.

**Objectives**
• Understand the importance of ontology management and the limitations of early binding.
• Recognize the benefits of late binding
• Use a web-based software solution for late binding.

**Target Audience**
Systematic reviewers and guideline panel members interested medical terminology management.

**Workshop description and methods used to facilitate interactions**
Interactive demonstration and discussion, followed by access to a demo site so audience members with laptops can try "late binding."

Note: this submission was originally submitted as a workshop but accepted for an oral presentation.

## Poster Presentations A

### (PO A-91) Development and Maintenance of US Preventive Services Task Force Recommendations

First Author: Kirsten Bibbins-Domingo
Second Author: Alex Krist
First Author: Tracy Wolff – Associate Scientific Director, USPSTF Program, Agency for Healthcare Research and Quality
Third Author: Quyen Ngo-Metzger

**Background**
The U.S. Preventive Services Task Force (USPSTF) is an independent panel of nationally recognized, non-federal experts in prevention and evidence-based medicine. Using an established process that is transparent and systematic, the USPSTF makes recommendations about clinical preventive services, including screening, counseling about healthful behaviors, and preventive medications, implemented in a primary care setting. The Agency for Healthcare Research and Quality is mandated by Congress to support the work of the USPSTF.

**Objectives**
1. Understand the processes for new topic development and prioritization in a portfolio of prevention recommendations.
2. Learn about the process of developing research plans for systematic reviews for USPSTF recommendations on clinical preventive services
3. Understand USPSTF methods of translating the evidence on clinical preventive services into recommendations.
4. Recognize the importance of transparency and input from relevant stakeholders.

**Description of session and speaker topics**
Dr. Ngo-Metzger will discuss the USPSTF process to maintain recommendations including evaluating new topic nominations for review and how the USPSTF prioritizes current topics for updates.

Dr. Wolff will present the processes for developing research plans for USPSTF reviews including the use of an analytic framework, key questions, and inclusion/exclusion criteria.

Dr. Krist will discuss the methods and processes of translating the results of systematic reviews into recommendations. Important concepts to be discussed include adequacy of evidence, weighing benefits and harms, and assessing certainty of conclusions about net benefit.

Dr. Bibbins-Domingo will serve as moderator and present on USPSTF efforts to increase transparency of methods in guideline development and engaging stakeholders.

**Target Audience**
Guideline developers, researchers and health policy makers

Note: this submission was originally submitted as a workshop but accepted for an oral presentation.

## Poster Presentations A

### (PO A-92) Translating Guidelines into Practice: Closing Gaps in Patients Care

First Author: Reva Bhushan – Senior Manager, Evidence-Based Education and Clinical Best Practices, American Academy of Dermatology

**Background**
Evidence-based clinical guidelines (EBCG) can improve quality patient care. There is a well-established lack of adherence to EBCG. Broad dissemination of the guidelines/derivatives is essential for guidelines implementation.

**Objectives**
To encourage physicians and their care team to translate EBCG into clinical practice. Implementing best practices in clinical guidelines is an important issue for all medical specialties.

**Methods**
Case-based CME guidelines session based on AAD guidelines have been held since 2011. Pre, post-session surveys were administered at the sessions. Follow-up surveys were administered 6months to 2.5 years following completion. Session attendees received reference materials, which consisted of laminated cards, quick reference booklets, and recommended booklets. Pre, post, and follow up session data was analyzed.

**Results**
Prior to the session, more than half of participants did not review the guidelines. Following the session, over 90% of participants felt that the guidelines could be easily translated into practice and thought that the session would have a positive impact on their practice. >90% of participants felt the sessions had improved their knowledge. Approximately 50% reported making a change in practice.

**Discussion**
Barriers to implementation of guideline recommendations have been identified which include patient-centric barriers, organizational barriers and guideline-specific barriers. Our goal was to overcome guideline-specific barriers with the creation of tools. Most respondents found them to be useful. Hence we recommend the development of sessions and distribution of similar materials for all published guidelines.

**Implications for guideline developers/users**
Conclusion: Guidelines-based sessions are effective and well-received for improving knowledge, competence, and practice. The sessions can also be useful to determine self-reported practice gaps.

## Poster Presentations B

### (PO B-01) Indicator Development in the CareTrack Kids Study: Processes, Provenance and Products

First Author: Louise Wiles – Project Manager: Research, University of South Australia
Second Author: Peter Hibbert
Third Author: Adam Jaffe
Fourth Author: Les White
Fifth Author: Mark Harris
Sixth Author: Christopher Cowell
Seventh Author: Jeffrey Braithwaite

**Background**
Despite widespread availability of clinical guidelines, little detailed information exists regarding processes and provenance of indicator development.

**Objectives**
This study aimed to develop clinical indicators of 'appropriate care' for common paediatric conditions, and detail processes, provenance and products of their development.

**Methods**
Clinical indicators were developed through searches of national and international guidelines and literature, and formatted with explicit criteria for inclusion, exclusion, time-frame and setting (primary, secondary, tertiary care) for 21 paediatric conditions. Experts (paediatricians, general practitioners, policy-makers and university faculty staff) reviewed indicators against three criteria (acceptability, feasibility, impact) and a nine-point Likert score for 'appropriateness' using a multi-round modified Delphi approach (internal email, external wiki-based). Quantitative and qualitative analyses included descriptive statistics for reviewers' characteristics and clinical indicator scores, as well as frequency counts and content analyses of their free-text responses.

**Results**
There were 1098 original recommendations used to draft 451 indicators. Following three rounds of internal review, 59% (n=266) were approved for posting to the wiki, where two rounds of external review yielded 258 (97%) 'appropriateness' indicators. Per condition, mean reviewers' scores for appropriateness ranged from 6.21 to 8.83. Indicators rated positively for acceptability, feasibility and impact, although most reviewers' comments focused around the feasibility of determining compliance from medical record documentation.

**Discussion**
Our findings provide evidence for the use of a novel method for developing and contextualising indicators of 'appropriate care' for paediatric conditions.

**Implications for guideline developers/users**
Future research could explore which components of multi-round, multi-modality Delphi approaches are most effective for indicator development, and pilot new approaches available for evaluating compliance.

## Poster Presentations B

### (PO B-02) Contextualization and Implementation of CPGs for Stroke Rehabilitation in a Developing Country Part 2

First Author: Consuelo G. Suarez – Consultant, Apolinario Mabini Rehabilitation Center, University of Santo Tomas Hospital
Second Author: Janine Margarita R. Dizon – Associate Professor, University of Santo Tomas
Third Author: Carolina M. Valdecanas – Consultant, St Luke's Medical Center
Fourth Author: Karen Grimmer – Director, International Centre for Allied Health Evidence, University of South Australia

**Background**
Key recommendations with strongest evidence for stroke rehabilitation management from our contextualized CPGs were chosen to be implemented in the four rehabilitation medicine training hospitals in the Philippines.

**Objectives**
An implementation plan was carried out and evaluated for its effectiveness using objective measures of outcomes.

**Methods**
We conducted a one year pre-post implementation mixed-methods study using medical chart reviews and focus group interviews. The implementation strategy consisted of: (1) orientation to evidence based healthcare, guideline contextualization and implementation plan, (2) training to use the recommended outcome measures, assessments, interventions, exercises and the forms, and (3) practice visits among all others.

**Results**
Significant improvements (p values < 0.05) were noted in terms of length of stay, regular evaluation for pressure sore development, pressure sore risk assessment using objective outcome measures and use of pressure relieving aids. The health professionals perceived and valued the guideline implementation as practical and collaborative as it provided summary of effective strategies in acute stroke rehabilitation and standardized practice. The orientation and training, reminders and the support provided by the research team facilitated adherence to the CPG recommendations whilst dominating habits in practice and the hierarchical structure in hospitals were considered barriers to the implementation.

**Discussion**
Improvements in patient outcomes and quality indicators were seen one-year post implementation of recommended guidelines.

**Implications for guideline developers/users**
This is a pioneering work in a developing country in terms of CPG implementation and can be used as tested model by other countries and settings.

## Poster Presentations B

### (PO B-03) Development and Implementation of a Biomedical Library's Systematic Reviews Core

First Author: Maylene Kefeng Qiu – Systematic Review Coordinator and Clinical Liaison, University of Pennsylvania
Second Author: Sherry E. Morgan – Clinical & Graduate Research Liaison Librarian, University of Pennsylvania
Third Author: Barbara B. Cavanaugh – Associate Director, STEM Libraries; Director, Biomedical Library, University of Pennsylvania

**Background**
Systematic Reviews (SRs) play an essential role in guideline development. Librarians at the University of Pennsylvania's Biomedical Library have participated on several systematic review teams. To respond to a growing number of requests due, in part, to Institute of Medicine recommendations, the Library established a SR Core.

**Objectives**
This poster describes the process of developing a successful SR Core service.

**Methods**
Successful SRs require special knowledge and effort on the part of the librarians involved. These factors may create hurdles for a library to offer a high quality SR service to the large researcher community they served. Through an environmental scan and investigation of literature, the library created a two-tiered SR core service model. Tier 1 is a basic consultation service. In tier 2, an advanced service, the librarians conduct the literature search for the team.

**Results**
The tiered service model satisfied the researchers in meeting their needs and efficiently utilizes the library's resources, making the service sustainable and scalable.

**Discussion**
Several factors relating to researchers and librarians may influence a success of completing SR projects. Researchers' knowledge of and attitude toward SR process, whether a research team has been assembled, the number of qualified librarians and their availability, etc, must be considered.

**Implications for guideline developers/users**
There are a variety of levels on which researchers can work with their health sciences librarians, ranging from consultative services to full partnership and co-authorship. Our tiered service can serve as a model for researchers seeking to involve the librarians in an SR at their institutions.

## Poster Presentations B

### (PO B-04) A Medical Librarian on the Team: An Essential Asset in the Development of a National Guideline

First Author: Sherry E. Morgan – Clinical & Graduate Research Liaison Librarian, University of Pennsylvania
Second Author: Maylene Kefeng Qiu – Systematic Review Coordinator and Clinical Liaison, University of Pennsylvania

**Background**
Medical librarians' knowledge, skills and experience in searching for evidence are acknowledged in the Institute of Medicine's (IOM) Standards for Systematic Reviews (SRs) that recommends them as research partners. Although the IOM has not specified librarians in their standards for guidelines, SRs are important to guidelines, which makes librarians well suited to participate in guideline development.

**Objectives**
To demonstrate the essential role of medical librarians on research teams for guideline development.

**Methods**
Librarians' expertise in literature searching for SRs prompted the Director of the Center for Evidence-based Practice at the University of Pennsylvania Health System to include a librarian on a research team to update a national guideline on Prevention of Surgical Site Infections in conjunction with the Centers for Disease Control. The librarian's role as research partner for this project included construction of intricate, complex search strategies that required multiple iterations across a number of databases, de-duplicating and organizing results in a bibliographic management program, and facilitating the acquisition of full-text articles. This effort took over thirteen months to complete.

**Results**
The librarian's contributions facilitated the completion of the guideline by meeting deadlines along a timeline established by the team leaders.

**Discussion**
An experienced librarian can be a critical asset to enable timely completion of intensive, comprehensive information gathering and management. This contribution can help support an efficient and effective workflow in a guideline's development.

**Implications for guideline developers/users**
This case of including a medical librarian on a guideline team can serve as a model for future guideline endeavors requiring intensive, comprehensive database searching and reference management.

## Poster Presentations B

### (PO B-05) Why You Don't Need a Passport to Receive or Learn Resuscitation. The ILCOR Experience with Evidence-Based Guidelines

First Author: Eddy Lang
Second Author: Russell Griffin
Third Author: Peter Morley
Fourth Author: Judith Finn
Fifth Author: Jerry Nolan
Sixth Author: Lana Gent
Seventh Author: Jose Ferrer
Eighth Author: Laurie Morrison

**Background**
The International Liaison Committee on Resuscitation (ILCOR) develops guidance related to CPR and other facets of resuscitation for seven national and international organizations around the world on a five-year cycle.

**Objectives**
To describe the unique organizational structure and governance as well as changes in ILCOR methodology and an electronic interface (Scientific Evidence Evaluation and Review System - SEERS) used for guideline development and uptake by resuscitation councils.

**Methods**
The SEERS interface is populated with abstracts identified after PICO question formulation and a search by a health librarian. Relevant titles are uploaded into SEERS as abstracts where further assessment determines inclusion. Retained papers then undergo appraisal and data extraction for outcomes deemed important or critical as per the GRADE approach. Guideline development is divided into 7 task forces including pediatric, neonatal, basic and advanced life support as well as education and first aid.

**Results**
The revised process addressed 169 PICO questions / systematic reviews yielding 221 recommendations. The majority were weak (167) in category and generally supported by low (54) or very low (102) quality evidence. The process led to refraining from making recommendations on 43 PICO topics where the evidence was deemed to be indecisive. Discordant recommendations (21 strong / low quality and 22 strong / very-low quality) were also developed. 492 public comments were received and addressed.

**Discussion**
ILCOR guidelines consist of high impact recommendations being applied largely unchanged across hundreds of jurisdictions.

**Implications for guideline developers/users**
ILCOR has achieved success in the arenas of guideline development through upfront investment, transparent governance and international stakeholder engagement.

## Poster Presentations B

### (PO B-06) The Introduction of Clinical Protocols for the Treatment of Rheumatoid Arthritis (RA) In Health Care

First Author: Olena Shilkina – Head of the Department of Methodological Support of New Technologies in Healthcare, The State Expert Center of the Ministry of Health of Ukraine
Second Author: Ievgeniia Rubtsova – Expert, Medical Care Standardization Board, State Expert Centre of the Ministry of Health of Ukraine

**Background**
The quality medical care is provided through the development and implementation of clinical guidelines based on the principles of evidence-based medicine.

**Objectives**
Promoting clinical guidelines and protocols in the practice of medical institutions.

**Methods**
In Ukraine, the development of medical and technological documents is conducted at two levels. Adapted clinical guidelines and clinical protocols are developed at national level, and based on them local protocols (clinical pathways, CP) are developed at local level in hospitals. Stages of documents development include search, evaluation and selection of prototypes of best international clinical guidelines and their adaptation to the health system of Ukraine, further development on their basis of national clinical standards and protocols, and in hospitals - CPs. The Ministry of Health of Ukraine has approved clinical protocol for the treatment of RA based on the guidance NICE Rheumatoid arthritis (2009). In order to implement the statements of this clinical protocol, CPs should be developed by multidisciplinary team of experts in local hospitals.

**Results**
To optimize the work of protocols development teams there were conducted educational trainings, which consisted of three lectures and discussions. Total during the past two years there were 6 cycles of training, which were attended by more than 200 developers from different medical institutions of Kyiv.

**Discussion**
Organization of training sessions for CPs developers helps to detect problems in their work and identify priorities for future activities. They also help to standardize the development of CPs in hospitals.

**Implications for guideline developers/users**
Conducting trainings is expedient for protocols development teams in hospitals to improve their activities.

## Poster Presentations B

### (PO B-07) Methods for Developing Software to Support Systematic Review Development: The JBI SUMARI Example

First Author: Zachary Munn – Associate Professor, Director Transfer Science, The Joanna Briggs Institute
Second Author: Edoardo Aromataris
Fifth Author: Gilli Atkinson
Third Author: Craig Lockwood – Director, Implementation Science, Joanna Briggs Institute
Fourth Author: Zoe Jordan

**Background**
Ideally, clinical guidelines would include in their development not only systematic reviews on the effectiveness of interventions for certain conditions, but also the feasibility, appropriateness and meaningfulness of healthcare practices. However, a systematic review is not a simple project to undertake, and given their complexity they can take anywhere from 6 months to 2 years to complete. As such, software programs have been developed to facilitate, streamline and support the review process.

**Objectives**
To develop software for conducting systematic reviews of various types of evidence.

**Methods**
An agile software development approach was taken. A widespread consultation process was undertaken to collect feature requests from an international network of systematic reviewers. These were then turned into 'user stories' and assigned points which reflected the technical requirement to complete a story. Throughout the development an international user group provided feedback on the software functionality to enable iterative changes throughout the process.

**Results**
The software is now available and supports the entire systematic review process for different types of systematic reviews. User feedback and testing is ongoing, and the software will continue to evolve based on the needs of systematic reviewers.

**Discussion**
An agile software development approach combined with wide consultation and user testing can facilitate systematic review software design and development.

**Implications for guideline developers/users**
This new software can support guideline developers to create systematic reviews on their guideline questions. Additionally, a number of lessons learned throughout this process are available for other software developers in this field.

## Poster Presentations B

### (PO B-08) The Visibility of Equity and Socio-Economic Determinants (SED) In Australian Clinical Practice Guidelines (CPGs)

First Author: Leena Gupta – Director, Public Health, Sydney Local Health District
Second Author: Jeanette Ward
Third Author: Paul Ward

**Background**
Inequities in healthcare are entrenched: for example, socio-economically disadvantaged populations have persistently poorer access to and quality of healthcare. CPGs are intended to communicate evidence-based recommendations about clinical questions to maximise health outcomes. CPGs may either worsen the health of disadvantaged populations by not recognising inequity arising from these recommendations or may lessen inequity by including recommendations which redress the impact of disadvantage on healthcare.

**Objectives**
To examine the extent to which equity, SED and consideration of disadvantaged groups are visible in Australian CPGs.

**Methods**
Seventy-four CPGs on a national guideline repository, the Australian CPG portal, published between 2010-2014 were systematically selected and reviewed using a guideline equity lens. This lens was developed with an expert panel, including validity and reliability testing. Data were collected on how equity and SED were considered. Factors associated with their inclusion were explored, including the association between visibility of equity/SED and the overall methodological quality of CPGs.

**Results**
Psychometric qualities of the equity lens were sound. Thirty-one percent of CPGs referred to equity, inequality or SED. Only 12 guidelines identified gaps in research relating to SED. Aboriginal Australians were specifically considered in less than half (45%) of guidelines studied. Factors associated with explicit inclusion of SED will be presented.

**Discussion**
Equity, socio-economic determinants and the needs of specific populations were invisible in the majority of Australian CPGs studied. Possible factors and strategies in response will be suggested.

**Implications for guideline developers/users**
Policies and standards for guideline development could strengthen considerations of equity and socio-economic determinants using parameters from this equity lens.

## Poster Presentations B

### (PO B-09) Strengthening the Foundation of a Guideline Development and Revision Program - A Work in Progress

First Author: Sarah Kraus – Quality and Guidelines Specialist, Society of Critical Care Medicine

**Background**
By standardizing guideline development processes, societies can increase guideline publication rates and demonstrate improved patient care by collecting data on the evidence-based recommendations.

**Objectives**
1. Describe strategies implemented to standardize guideline development processes
2. Identify obstacles for implementing new strategies for guideline projects
3. Review the results of implementing strategies to increase publication rates
4. Discuss evidence-based recommendations being utilized for data collection

**Methods**
A summary of these strategies is provided below:
1. Call schedules were developed and meetings requests were sent to participants to increase call participation
2. A reference database account and librarian services were provided to guideline developers
3. Share Point site for shared access to documents provided to guideline developers
4. GRADE methodology support was provided for each guideline project

**Results**
Two guidelines published in 2012
Two guidelines published in 2013
No guidelines published in 2014
Three guidelines published in 2015
Anticipate five guidelines to be published in 2016
Anticipate four guidelines to be published in 2017

**Discussion**
The most important result of publishing guidelines is the utilization of evidence-based recommendations to collect outcome data on patient care. The Surviving Sepsis Campaign collaborative has shown data validation of their recommendations. Data on the PAD guideline recommendations is currently being collected by the ICU Liberation collaborative.

**Implications for guideline developers/users**
Future guideline developers assigned to revise the Surviving Sepsis Campaign guidelines and the PAD guidelines will utilize the data from the collaboratives to either validate or modify their evidence-based recommendations.

## Poster Presentations B

### (PO B-10) Revision of the Dutch Method for Guideline Development, Implementation and Revision, a Policy Report

First Author: Guus A. Meerhoff – PhD-student, Royal Dutch Society for Physical Therapy
Second Author: Karin Heijblom, Sr. – Senior Policy Employee, Royal Dutch Society for Physical Therapy
Third Author: Jesper Knoop – Policy Employee, Royal Dutch Society for Physical Therapy

**Background**
Although the guidelines developed by the Royal Dutch Society for Physical Therapy (KNGF) function as the cornerstone for Dutch physical therapy their process of development and implementation can be optimized.

**Objectives**
In 2015 the KNGF decided to update its method for guideline development, implementation and revision with the aim for physical therapy guidelines to be:
1) Easier to apply in clinical practice;
2) Meeting the new quality standards defined by the Dutch National Health Care Institute (DNHCI);
3) Developed/revised in a more efficient and uniform manner.

**Methods**
A concept version of the revised method was written based on input from different clinical practitioners and researchers, and the new quality standards of the DNHCI. This concept document was presented to: 1) the author of the former method, 2) the authors of existing KNGF-guidelines, 3) KNGF's scientific advisory board and 4) stakeholders such as the Dutch Patient Federation, the Dutch College of General Practitioners and the Dutch Federation of Medical Specialists. After three consensus rounds all consulted parties agreed that the method for guideline development, implementation and revision corresponded to the needs.

**Results**
The revised method creates guidelines:
1) With a standard template on an easy to interpret web-portal;
2) That meet the quality standards of the DNHCI and
3) Are developed by the KNGF autonomously to increase efficiency and uniformity

**Discussion**
Based on the future experiences with the revised method we plan to optimize our method for guideline development annually.

**Implications for guideline developers/users**
In 2016 two existing guidelines will be revised using the new method.

## Poster Presentations B

### (PO B-11) Quality Scoring of Randomized Controlled Trials for the Development of Evidence-Based Practice Guidelines

First Author: Ulrike Ott – Research Analyst, Rocky Mountain Center for Occupational and Environmental Health
Second Author: Kurt T. Hegmann
Third Author: Kristine Hegmann
Fourth Author: Lucy Shannon
Fifth Author: Matthew S. Thiese
Sixth Author: Julie Ording
Seventh Author: Jeffrey Harris – Senior Physician, The Permanente Medical Group

**Background**
Randomized controlled trials (RCTs) are considered the "gold standard" for evaluating an intervention's effectiveness. As the quality of them varies, a method is needed to separate higher from lower quality.

**Objectives**
To quantify the number of guidelines listed in the National Guideline Clearinghouse (NGC) that utilized a rating scheme to determine the quality of evidence and present a quantitative method to assess the quality of RCTs.

**Methods**
We reviewed the guideline matrix used by the NGC, which allowed for quantification of methods to assess the quality of the evidence.

**Results**
Of the systematic review-based guidelines (N=2024) represented by the NGC, 25.3% (N=513) do not utilize a weighting according to a rating scheme to assess the quality of the evidence. 2.8% (N=56) use a rating scheme but do not provide further details, while 4.3% (N=88) do not provide methods regarding analyzing evidence. Many represented as having a rating scheme use qualitative methods. A quantitative scoring method used by the American College of Occupational and Environmental Medicine considers 11 criteria: e.g. randomization, and concealed treatment allocation. Each criterion is rated 0, 0.5, or 1.0. A study is considered low quality if the composite rating was ≤3.5, moderate if rated 4-7.5, and high if rated 8-11. This system results in a testable article score and reproducible guidelines methods.

**Discussion**
Properly grading study quality and rating overall strength of evidence can produce improved levels of confidence about the scientific basis for guidelines.

**Implications for guideline developers/users**
Many guideline developers don't use quantitative grading criteria to separate higher from lower quality RCTs.

## Poster Presentations B

### (PO B-12) Should the Time Spent in Peer Review Be Considered When Grading Quality Evidence?

First Author: Ulrike Ott – Research Analyst, Rocky Mountain Center for Occupational and Environmental Health
Second Author: Kurt T. Hegmann
Third Author: Julie Ording
Fourth Author: Anh Tran
Sixth Author: Brenden B Ronna
Fifth Author: Jeffrey Harris – Senior Physician, The Permanente Medical Group

**Background**
Previously, peer review was a time consuming process often encompassing many months. Recent efforts have focused on shortening peer review timelines. Still, there would seem to be a minimum time required for sufficient gravity of peer review. There is no standard for the inclusion of evidence regarding the peer review time for incorporation in guidelines.

**Objectives**
To quantify the amount of time high- and moderate quality randomized controlled trials (RCTs) used for the development of guidelines spent going through peer review.

**Methods**
We reviewed the evidence used to develop practice guidelines for 1) therapeutic facet joint injections for the treatment of low back pain and 2) epidural injections for cervical pain. All high- and moderate trials were reviewed for time between submission and acceptance dates to determine time spent in peer review.

**Results**
Evidence for facet joint injections included 2 high-, and 9 moderate quality trials. Three trials did not state submission dates. The 8 remaining trials spent an average of 200 days in peer review. Evidence for epidural injections consisted of 1 high-, and 14 moderate RCTs. Two trials did not state submission dates. The 13 remaining trials spent an average of 92 days in peer review. Surprisingly, 38.5% (N=5) spent less than 30 days in peer review and one trial was allegedly reviewed in one week.

**Discussion**
A short peer review period may not be adequate time for reviewers and cause reason for concern regarding the rigor or peer review.

**Implications for guideline developers/users**
This may be particularly problematic in certain high cost or controversial areas.

## Poster Presentations B

### (PO B-13) Innovative Strategy for the Development and Updating of Individualised Nursing Best Practice Guidelines

First Author: Michelle Rey – Associate Director, Evidence and Guideline Development, RNAO
Second Author: Tasha Penney
Third Author: Erica D'Souza
Fourth Author: Irmajean Bajnok
Fifth Author: Doris Grinspun

**Background**
Aiming to optimize nursing practice, patient outcomes, organizational and health system cost-effectiveness, the Registered Nurses' Association of Ontario (RNAO), launched in 1999 the Nursing Clinical Best Practice Guidelines (BPG) Program. Guidelines are implemented in Canada and abroad through RNAO's Best Practice Spotlight Organizations (BPSO).® Their impact are evaluated through submission of data to Nursing Quality Indicators for Reporting and Evaluation (NQuIRE®), a database system of nursing quality indicators derived from practice recommendations.

**Objectives**
To refine and enhance guideline topic selection and updating strategies, introduction of determining strength of recommendations and modified-Delphi consensus building processes in development methodology.

**Methods**
A critical appraisal of existing guideline development methodology and review of the literature surrounding guideline development processes has been conducted. An International BPG Development Advisory Council (D-IAC) comprised of nurses, researchers, and policy leaders from across the globe has been established to support creation and implementation of innovative processes in guideline development.

**Results**
D-IAC will enhance a prioritization/ topic selection framework, a guideline maintenance schedule, and an approach to denote strength of recommendations with consensus-building methods.

**Discussion**
Implementation of new processes will be pilot tested and evaluated with the D-IAC regarding timing, resources for BPG development and feedback/evaluation from BPG implementation groups.

**Implications for guideline developers/users**
RNAO is already the largest international nurse-led guideline organization focused on robust guideline development that reflects the knowledge base of nursing and the need for evidence based practices for better client outcomes. RNAO's BPGs are renowned and used around the globe. The work of the D-IAC will further strengthen the program through international expertise.

## Poster Presentations B

### (PO B-14) International Federation of Red Cross and Red Crescent Societies Guidelines: an Overview and Quality Appraisal

First Author: Vere Borra – Staff member Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Second Author: Axel Vande veegaete – Scientific Coordinator Humanitarian Services, Belgian Red Cross-Flanders
Third Author: Emmy De Buck – Manager Centre for Evidence-Based Practice, Belgian Red Cross-Flanders
Fourth Author: Philippe Vandekerckhove – CEO, Belgian Red Cross-Flanders

**Background**
Over the years the International Federation of Red Cross and Red Crescent Societies (IFRC) has published dozens of guidelines, guidance series, etc. to assist and guide millions of volunteers and staff in their work.

**Objectives**
The objective of this study is to appraise the quality of the IFRC guidelines developed between 2001 and 2015.

**Methods**
Two authors independently assessed the quality using the Appraisal of Guidelines for Research and Evaluation (AGREE II) instrument. Average domain scores were calculated and overall quality scores and recommendation for use were determined.

**Results**
Out of 77 identified guidelines, 27 met the inclusion criteria and were assessed. The domains with the highest average scores across guidelines were “scope & purpose”, “clarity of presentation” and “applicability”. The lowest scoring domains were “rigour of development” and “editorial independence”. No guideline can be ‘recommended for immediate use’, 23 guidelines are ‘recommended with modifications’ and 4 guidelines are ‘not recommended‘.

**Discussion**
The IFRC produces guidelines that should be adhered to by millions of staff and volunteers in 190 countries and should therefore be of high quality. Up until now, the IFRC has no uniform guideline development process. The results of the AGREE II appraisal indicate that the quality of the guidelines needs improvement.

**Implications for guideline developers/users**
This study forms a baseline measurement which will help to monitor progress in the future, and can also be a first step in motivating other components of the RC&RC Movement to develop evidence-based guidelines.

## Poster Presentations B

### (PO B-15) Stakeholder Surveys Guide Development of Clinical Practice Guidelines

First Author: Adrah Leitner – Doctor of Physical Therapy, Professional Pediatrics Home Care
Second Author: Lisa Dannemiller – Assistant Professor, University of Colorado Physical Therapy Program

**Background**
The American Physical Therapy Association is promoting the development of Clinical Practice Guidelines (CPG). This abstract addresses an essential element in the development of a new Developmental Coordination Disorder CPG (DCD CPG), using survey results to identify content that meets the needs of critical stakeholders.

**Objectives**
1. To report the topic ratings for a DCD CPG from surveys of pediatric physical therapists, physicians and parents.
2. To describe the resulting organization of topics based on the expressed needs of stakeholders.

**Methods**
Role-specific surveys were developed for three stakeholder groups. Topics were scored anonymously using a 5-point scale of "Not Important" to "Critically Important." Physical therapist (PT) surveys had 24 questions; physicians had 11 and parents had 20.

**Results**
1) 174 PT's scored 13 of 24 items, as highly or critically important to address in a DCD CPG. 2) 7 physicians scored 4 of 11 items as highly or critically important to address in a DCD CPG. 3) Parent surveys are in process.

**Discussion**
Critically or highly important survey items identified by the stakeholders will be used to organize the content of the DCD CPG. The top 4 topics chosen by PTs and physicians are: 1) current definition of DCD (both), 2) differential diagnosis of DCD (both), 3) PT intervention (PTs), and 4) a quick reference guide (physicians).

**Implications for guideline developers/users**
Primary stakeholder surveys provide validation of the topic priorities for CPG inclusion, and may yield a greater representation of needs than single stakeholder participation in guideline development groups.

## Poster Presentations B

### (PO B-16) Using Legislation and National Policy Advice to Develop a National Guideline On Management of Controlled Drugs

First Author: Shelly Patel – Medicines Adviser, NICE
Second Author: Judith Thornton – Associate Director, Medicines Evidence and Advice, NICE Medicines and prescribing programme, National Institute for Health and Care Excellence
Third Author: Johanna Hulme – Associate Director, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Fourth Author: Louise Picton – Senior Medicines Adviser, Pharmacist
Fifth Author: Gregory M. Moran – Medicines adviser, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Sixth Author: Ian Pye
Seventh Author: Tessa Lewis

**Background**
A NICE medicines practice guideline addressed systems and processes for using and managing controlled drugs. The guideline provides recommendations for health professionals and organisations on adhering to legislation and promoting patient safety.

**Objectives**
To carry out an evidence review including UK legislation, national policy and professional guidance.

**Methods**
In line with the NICE guideline methods manual, literature search strategies were constructed and adapted to identify relevant current UK legislation, national policy and professional guidance in addition to interventional studies. Other sources used to search for evidence included NHS England, Medicines and Healthcare products Regulatory Agency, Care Quality Commission and guidance from professional bodies.

**Results**
6 pieces of legislation, 18 UK national policy documents, 2 guidelines, 3 studies, 2 audit reports and professional guidance were included. Key points were summarised in evidence tables together with learning points from incidents relating to controlled drugs and actions to prevent further incidents.

**Discussion**
Development and publication of the guideline demonstrates that it is possible to include legislation national policy and professional guidance in evidence reviews. This needs to be incorporated into the review protocols to enable such evidence to be identified. There were no tools to allow quality assessment but the status of UK legislation, national policy and professional advice was acknowledged.

**Implications for guideline developers/users**
Although many guidelines do not need to consider legislation, national policy or professional guidance, the controlled drugs guideline demonstrated that this is possible. Guideline developers need to think about how to review different types of evidence that do not fit into the typical 'studies' category.

## Poster Presentations B

### (PO B-17) Applying GRADE Methodology to Non-Interventional Reviews: Diagnostic, Prognostic and Clinical Prediction Rules

First Author: Rachel M. O'Mahony – Technical Advisor, NICE

**Background**
An extensive amount of guidance exists about how to conduct and use GRADE within systematic reviews involving interventions. However, for less commonly conducted reviews such as diagnosis, prognosis, and clinical prediction rules (CPR), guidance is relatively sparse. Distinguishing between these types of reviews and understanding what questions are best addressed using them, can also be a challenge for guideline developers.

**Objectives**
To provide information on the differences between these types of reviews and the questions they can address, and give guidance about how to apply the principles of GRADE methodology.

**Methods**
An assessment will be conducted of all recent NICE guidelines that have produced diagnostic, prognostic and CPR systematic reviews. The specific strategies and methods developed for these reviews will be recorded and analysed, including any modifications to the GRADE framework that were applied.

**Results**
Some examples will be provided of modified GRADE tables, principles for assessing evidence quality, and how they have been used in NICE guidelines. Risk of bias assessment will be based upon existing established checklists such as QUADAS II and PROBAST.

**Discussion**
By developing and applying modified GRADE approaches to diagnostic, prognostic and CPR reviews, there should be an increase in transparency and consistency of approach, as well as providing a clearer presentation of the evidence.

**Implications for guideline developers/users**
The results of this work should provide some practical tools and a framework that can be used by other guideline developers when addressing these topics, and ultimately lead to the formulation of more robust, evidence-based recommendations.

## Poster Presentations B

### (PO B-18) Adapting Quality Assessment Checklists to Prioritise Studies for Commentaries

First Author: Katrina L. Sparrow – Technical Adviser
Second Author: Emma McFarlane – Technical Adviser
Third Author: Yolanda Martinez – Technical Analyst
Fourth Author: Steve Sharp – Technical Analyst
Fifth Author: Saskia Cheyne – Technical Analyst
Sixth Author: Jeffrey Tabiri-Essuman – Technical Analyst
Seventh Author: Omar Moreea – Technical Analyst
Eighth Author: Lynne Kincaid – Technical Analyst
Ninth Author: Maryam Gholitabar – Technical Analyst

**Background**
NICE as part of the surveillance of clinical guidelines produces a Surveillance Report for every review. This report states the update decision and includes a commentary of up to 3 studies which have undergone quality assessment. Commentaries provide an evidence awareness resource of recently published evidence which is deemed to be of relevance to the clinical area and guideline.

**Objectives**
To develop quality assessment checklists for different study designs to inform the prioritisation of studies for commentary in NICE Surveillance Reports.

**Methods**
Checklists developed by NICE and other organisations were reviewed and checked for suitability for use within the NICE surveillance programme. Checklists were then adapted by either amending the questions to plain English, removing questions which were not required for the commentary or by adding or adapting guidance on the 'how to complete' each part of the checklist .

**Results**
The results of this work will show the adaptation of existing validated checklists and how they can and have been used by the NICE surveillance programme to inform the commentaries in the Surveillance Reports.

**Discussion**
Quality assessment is an important part of conducting a systematic review or assessing if a paper should be prioritised for commentaries. However checklists need to be suitable for their purpose, easy to complete and be understandable by the readers who may not be familiar with research methodology.

**Implications for guideline developers/users**
This work will show how checklists can be adapted if needed and used to inform decisions.

## Poster Presentations B

### (PO B-19) Determining the Perspective for Economic Evaluations in NICE Clinical Guidelines – The Inclusion of Social Care

First Author: Ross Maconachie – Technical Advisor (Health Economics), National Institute for Health and Care Excellence

**Background**
The funding arrangements for health and social care in the UK are complex. In the circumstances where social care services are statutory, opportunity costs do not fall to other health and social care users but elsewhere in the system. The cost effectiveness of social care services and the associated willingness-to-pay values have not been established. Despite this, NICE's mandated perspective for costs is that of the National Health Service and personal social services.

**Objectives**
To outline a framework by which guideline developers can decide whether and how to include social care costs in economic evaluations of healthcare interventions.

**Methods**
Workshop with guideline developers.

**Results**
See 'discussion' section.

**Discussion**
There are many challenges associated with including social care in economic evaluations. Health and social care interventions may affect each other or be delivered jointly depending on local funding arrangements and economic deprivation. Many social care interventions are mandated but would never be cost effective at NICE's threshold of £20,000 per QALY. There is, however, evidence that the benefits of social care are already often taken into account in economic evaluations without any associated cost considerations. While modelling options to address social care costs exist, they are complex and can require detailed multi-morbidity data.

**Implications for guideline developers/users**
Guideline developers and committees should consider whether interventions are likely to lead to a change in social care usage via mortality or level of need for personal care. If explicit modelling is not possible, these costs should be considered qualitatively. Social Value Judgements allowing cost-ineffective care should be considered regardless.

## Poster Presentations B

### (PO B-20) Prioritising Guideline Updates in Large and Complex Topic Areas

First Author: Charlotte Haynes – Senior Technical Analyst, National Institute for Health and Care Excellence
Second Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence
Third Author: Victoria Axe – Technical Analyst, National Institute for Health and Care Excellence
Fourth Author: Fiona Glen – Programme Director Public Health and Social Care Centre, National Institute for Health and Care Excellence
Fifth Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence

**Background**
Ensuring guidelines remain up-to-date is a challenge, especially in large or complex areas where several guidelines cover different aspects of a topic. In 2014 methods were introduced in one national guideline development programme to consider undertaking surveillance reviews of public health guidelines every 2 years. As part of this, we explored whether considering groups of related guidelines would result in improvements in update decisions and processes.

**Objectives**
To explore how a series of guidelines should be reviewed for update on the basis of topic area rather than solely on time since publication.

**Methods**
Two topic areas - smoking and obesity - were selected. In one area, we used intelligence from the review decisions of single guidelines to inform consideration of updates in closely related guidelines. In the other area, we mapped all related guidelines and used intelligence gathered across the whole topic area to inform update decisions for single guidelines.

**Results**
Considering guidelines by topic area enabled prioritisation of surveillance reviews based on factors such as identification and consideration of interdependencies between guidelines and policy changes. Gaps in guideline coverage were also identified.

**Discussion**
This presented an opportunity to
• consider the entire portfolio of smoking and obesity-related guidelines
• assess options for integrating and/or updating guidelines
• consider the need for new guidelines to fill any significant gaps.

**Implications for guideline developers/users**
The decision to undertake update reviews benefits from considering all guidelines in a subject area as a whole, within the wider socio-demographic and political context.

## Poster Presentations B

### (PO B-21) Developing A Guideline for the Adoption and Diffusion of New Antimicrobials for the NHS: Using a 'Call for Evidence'

First Author: Gregory M. Moran – Medicines adviser, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Second Author: Alastair D. Hay – Professor of Primary Care and NIHR Research Professor, University of Bristol
Third Author: Judith Thornton – Associate Director, Medicines Evidence and Advice, NICE Medicines and prescribing programme, National Institute for Health and Care Excellence
Fourth Author: Johanna Hulme – Associate Director, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Fifth Author: Louise Picton – Senior Medicines Adviser, Pharmacist
Sixth Author: Shelly Patel – Medicines Adviser, NICE

**Background**
A NICE medicines practice guideline on antimicrobial stewardship addressed the systems and process for the adoption and diffusion of new antimicrobial drugs within the NHS.

**Objectives**
To develop recommendations based on an evidence review on the barriers and facilitators for the timely adoption and diffusion of new antimicrobials by the NHS.

**Methods**
In line with the NICE guideline methods manual, literature search strategies were constructed to identify any published information on best practice systems and processes for the adoption of new antimicrobials by health organisations: only 1 interrupted time series study was included. Therefore, NICE posted a 'call for evidence'. This is a request to NHS organisations. The guideline committee drew up detailed key questions to collect evidence on what systems and processes are currently in place to:
• facilitate the adoption and diffusion of new antimicrobials
• identify barriers to the introduction of new antimicrobial drugs

**Results**
82 completed evidence submissions were received from provider and commissioner organisations in the NHS. Key themes were identified and summarised, presented and discussed at guideline committee meetings and used to inform the development of recommendations.

**Discussion**
Where there is little published evidence, it is possible to develop best practice recommendations using evidence from commissioners and providers about their current practice. Quality assessment for written submissions needs to be addressed as for any observational (cross-sectional) study and results could be subject to responder bias.

**Implications for guideline developers/users**
For guidelines addressing systems and processes where there is little published evidence, developers may need to consider how to capture information from practice to inform recommendations.

## Poster Presentations B

### (PO B-22) Living Guidelines: A New Model for Guideline Maintenance in Sweden.

First Author: Grethe Fochsen – Project manager, National board of health and welfare
Second Author: Per-henrik Zingmark
Third Author: Melinda Mild

**Background**
Keeping guidelines up to date is a challenge for all guideline developers. The Swedish National Board of Health and Welfare initiated a project in order to improve the maintenance process.

**Objectives**
The objective of the project was to improve the maintenance process of national guidelines in Sweden

**Methods**
A project team evaluated and re-assessed the current maintenance model. Data collection included interviews with stakeholders and other guideline developers. Review of evaluation reports and working routines were also carried out.

**Results**
A new maintenance model was developed encompassing three phases:
1) Annual updates focusing on those areas of the guidelines where new evidence has been identified.
2) Evaluation of guideline adherence 3 to 4 years after publication including information from national patient registries and national quality registries. Health care providers´ performances are followed up at the county and municipality levels.
3) Thorough review of the entire guidelines based on the results of the evaluation report.

**Discussion**
The evaluation of guideline adherence based on register data, combined with annual updates, provides a unique possibility to develop a living guideline adapted to healthcare needs.

**Implications for guideline developers/users**
This model can also be used by guideline producers without access to national patient registries in order to develop maintenance processes.

## Poster Presentations B

### (PO B-23) Patients' Preferences for Physiotherapy Yreatment and Decision Making: A Qualitative Study

First Author: Susanne Bernhardsson – R&D Counselor, Närhälsan Research and Development Centre
Second Author: Maria Larsson
Third Author: Kajsa Johansson

**Background**
To facilitate shared decision making, clinical practice guidelines (CPGs) should consider patients' values and preferences. Patient preferences can influence healthcare practitioners' adherence to guidelines and incorporating patient preferences with CPGs has been associated with more frequent guideline use.

**Objectives**
To explore patients' preferences for physiotherapy treatment and participation in decision making.

**Methods**
A qualitative study with semi-structured interviews of 20 individuals who sought physiotherapy for musculoskeletal disorders. Interviews were recorded, transcribed and analysed with inductive qualitative content analysis.

**Results**
An overarching theme, embracing six categories, was conceptualised: Trust in the physiotherapist fosters active engagement in therapy. Informants preferred active treatment strategies such as exercise and advice for self-management, allowing them to actively engage in their therapy. Some preferred passive treatments. Key influencers on treatment preferences were previous experiences and media. All informants wanted to be involved in the clinical decision making, but to varying extents. Both preferences for an active role and wanting to share decisions and a passive role were expressed. Expectations for professional management were reflected in trust and confidence in physiotherapists' skills and competence and a belief that treatment methods should be evidence-based.

**Discussion**
A better understanding of patients' preferences for treatment and clinical decision making can be used both for integration with evidence-based CPGs, thereby raising their quality, and to facilitate shared decision making.

**Implications for guideline developers/users**
Shared decision making should be encouraged and promoted more explicitly in CPGs. Guideline developers should consider research on patients' preferences and incorporate this in their recommendations to a greater extent.

## Poster Presentations B

### (PO B-24) Development of Clinical Guideline for PTSD as a New Challenge for the Health System in Ukraine

Expert Center of the Ministry of Health of Ukraine
First Author: Ievgeniia Melnyk – Head of the Department of Evidence-Based Medicine, Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine
Second Author: Olena Lishchyshyna – Head of the Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine

**Background**
Post-traumatic stress disorder (PTSD) is mental disorder that develops in some people after traumatic events. Although it is common condition even in developed countries, data on the prevalence and incidence of PTSD in Ukraine are currently unavailable.

**Objectives**
Today the complex geopolitical situation in the country sharply raised the question of the need to develop modern approaches to providing medical care to patients with PTSD, including children.

**Methods**
The adapted clinical guideline was developed taking in view the current world experience in the management of patients with PTSD, including the approaches implemented the USA, Australia, the United Kingdom and recommended by the WHO.

**Results**
The working group included not only representatives of various clinical specialties (psychiatrists, psychologists, therapists, family physicians), but also representatives of various institutions (Ministry of Health, Defence, Internal Affairs, State Service on Emergency Situations, National Police etc.). During the meetings, the working group discussed the available approaches and considered its adaptation for national health care system.

**Discussion**
The multidisciplinary composition of the group helped to create a single integrated approach to providing medical care to patients with PTSD in Ukraine. Based on provisions of evidence-based adapted clinical guideline the working group prepared unified clinical protocol taking into account the capacities of national health care system.

**Implications for guideline developers/users**
At the beginning of 2016, the Ministry of Health of Ukraine approved clinical guideline and unified clinical protocol on PTSD treatment. The approaches to the primary, secondary, tertiary medical care and psychological first aid to people with PTSD were introduced in Ukraine for the first time.

## Poster Presentations B

### (PO B-25) The Role of the Stakeholders in the Development of Clinical Guideline for Patients with Down Syndrome in Ukraine

First Author: Olena Lishchyshyna – Head of the Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine
Second Author: Ievgeniia Melnyk – Head of the Department of Evidence-Based Medicine, Medical Care Standardization Board, The State Expert Center of the Ministry of Health of Ukraine

**Background**
In 2014 in Ukraine, there were registered 390 children with Down syndrome. Although this problem is quite common in Ukraine, until recently, there were no document regulating medical care for children with Down syndrome.

**Objectives**
The absence in Ukraine of a single comprehensive document on medical assistance to people with Down syndrome created obstacles for the integration of children with Down syndrome in society and providing proper care for them.

**Methods**
In 2014 there was established a multidisciplinary working group to develop medical and technological documents to provide medical care to patients with Down syndrome in Ukraine. It included the main specialists in Child Psychiatry, Genetics, Pediatrics, Neonatology, Family Medicine, Therapy, the representatives of medical universities, children's hospitals and NGOs that provide care for children with Down syndrome and their families in Ukraine.

**Results**
The involvement of different stakeholders and combination of their efforts allowed for an integrated approach to providing medical care to people with Down syndrome at all stages of care.

**Discussion**
The objectives of the new protocols are reducing mortality and invalidization, improving socialization, quality of life and working performance of patients with Down syndrome. An important role in helping people with Down syndrome and their families in Ukraine, according to new documents, is also carried out by an educational and social organizations that promote socialization and adaptation of people with Down syndrome and their families in the community.

**Implications for guideline developers/users**
The projects of medical and technological documents on Down syndrome have been approved by the Ministry of Health of Ukraine in late 2015.

## Poster Presentations B

### (PO B-26) Is the National Guideline Clearinghouse a Trustworthy Source of Guidelines for Adolescent Anxiety and Depression?

First Author: Stephanie Duda
Second Author: Christine Fahim
Third Author: Melissa C. Brouwers – Professor, McMaster University
Fourth Author: Peter Szatmari
Fifth Author: Kathryn Bennett – Professor, McMaster University

**Background**
Practice guidelines (PGs) for child and adolescent anxiety and depression can be found in many different sources but their quality is uncertain. The National Guideline Clearinghouse (NGC), a widely available, free, online repository, was created to facilitate easy access to PGs and encourage their use.

**Objectives**
To evaluate the quality of PGs relevant to child and adolescent anxiety and depression in the NGC.

**Methods**
Two trained raters appraised eligible PGs using the Appraisal of Guidelines for Research and Evaluation (AGREE II) tool. Scores on three domains (stakeholder involvement, rigor of development, editorial independence) were used to designate PGs as: i) minimum quality (≥ 50%); ii) high quality (≥ 70%).

**Results**
Eight PGs met inclusion criteria (anxiety, n=1; depression, n=6; anxiety and depression, n=1). Among them, four were minimum quality (anxiety, n=1; depression, n=3) and three were high quality (anxiety, n=1; depression, n=2). Inter-rater agreement was excellent (weighted kappa = 0.93).

**Discussion**
PGs in the NGC relevant to child and adolescent anxiety and depression are of variable quality. NGC users who lack the time, knowledge, or special skills needed to select them based on quality may unknowingly choose flawed PGs to guide decision-making.

**Implications for guideline developers/users**
User-friendly PG repositories that provide quality ratings of all entries are urgently needed to advance mental health service quality and prevent harm and wasted resources. Documenting PG quality can also inform capacity building among PG developers so that the rigor of PGs relevant to child and adolescent mental health is strengthened.

## Poster Presentations B

### (PO B-27) Systematic Review Quality in Child and Adolescent Mental Health: A Systematic Review

First Author: Kathryn Bennett – Professor, McMaster University
Second Author: Stephanie Duda

**Background**
Numerous systematic reviews and meta-analyses (SR/MA) about interventions for child and adolescent mental disorders are available to guide clinical decisions, practice guideline development and set research priorities. Since little attention has been given to documenting and improving the rigor of SR/MA about child and adolescent anxiety, depression, and suicide interventions, we conducted an SR to fill this gap.

**Objectives**
1. What proportion of eligible SR/MA meet minimum quality criteria assessed using AMSTAR? 2. Did SR/MA quality improve after AMSTAR was introduced? 3. Does journal impact factor predict SR/MA quality?

**Methods**
Two trained raters appraised eligible SR/MA (2000-2012) using AMSTAR.

**Results**
Of 85 eligible reviews, 49.4% achieved a minimum quality rating [AMSTAR score ≥ 5/9 (SR) or ≥ 6/11 (MA)]: anxiety (n=20): 40%; depression (n=35): 60%; anxiety and depression (n=16): 37.5%; suicide (n=14): 50%. Failure rates for three high risk of bias AMSTAR criteria were: funding source/conflict of interest (68.2%); study quality assessment (67.1%); study quality considered in conclusions (62.4%). Introduction of AMSTAR resulted in a 38.5% increase in mean quality scores (4.7 to 6.5; $p < 0.05$). A statistically significant correlation ($r=0.25$) between AMSTAR scores and journal impact factor was found.

**Discussion**
Important quality gaps exist in SR/MA about interventions for child and adolescent anxiety, depression, and suicide.

**Implications for guideline developers/users**
Remedies to the weaknesses identified include increased attention to quality by authors and journal editors, and intensified review author collaboration to reduce the burden associated with time/resource intensive standards. Both strategies can increase the pool of rigorous reviews available.

## Poster Presentations B

### (PO B-28) Use of GRADE with Multiple Comparisons: An Exemplar in Early-Stage Hodgkin Lymphoma

First Author: Fulvia Baldassarre – Health Research Methodologist, McMaster University
Second Author: Jordan Herst
Third Author: Michael Crump
Fourth Author: Janet MacEachern
Fifth Author: Jonathan Sussman
Sixth Author: David Hodgson
Seventh Author: Matthew Cheung

**Background**
In the past, radiotherapy was the treatment for patients with early stage Hodgkin lymphoma (ESHL). However, this showed long term serious complications in survivors. Chemotherapy alone or with radiotherapy are treatment options upon which clinicians' opinions are divided.

**Objectives**
To create recommendations on the best management strategies of patients with ESHL. We enquired about dose and schedule of chemo/radiotherapy, on adverse events prevention, on positron emission tomography (PET) role, and on management of subgroups of patients with ESHL.

**Methods**
We used GRADE for our systematic review and guideline. We identified five relevant comparisons for radiotherapy, and four for chemotherapy. The evidence was rated for each outcome, and overall for each comparison. The document underwent internal and external review by content and methodology experts, and clinicians in Ontario. Periodic literature review and evaluation will keep this guideline up-to-date.

**Results**
We included 17 radiotherapy, and nine chemotherapy randomized trials. Studies' quality was moderate to high. We downgraded evidence for imprecision and indirectness. We issued eight recommendations, for classical, nodular lymphocyte predominant, favourable and unfavourable ESHL, and on PET role. Three of the recommendations were weak; three strong in favour, and two strong against the proposed treatment. The project took 30 months to complete.

**Discussion**
GRADE allowed for an evidence-based guideline, resolution of controversies, and implementation suggestions. Having many comparisons made the process lengthy.

**Implications for guideline developers/users**
We recommend GRADE for recommendation development, particularly for controversial topics. The higher the number of comparisons, the more time and resources to be planned.

## Poster Presentations B

### (PO B-29) The AGREE Reporting Checklist: A Tool to Improve the Reporting of Clinical Practice Guidelines

First Author: Melissa C. Brouwers – Professor, McMaster University
Second Author: Kate Kerkvliet – Research Assistant, McMaster University
Third Author: Karen D. Spithoff – Research Program Manager, McMaster University

**Background**
High quality practice guidelines (PGs) have the potential to improve clinical care and strengthen health systems; however, publication of poor quality PGs is common despite advances in PG development methodology. A PG reporting checklist can provide guidance to PG developers about the elements that should be included in PGs. The AGREE II is a widely used tool to evaluate PG quality; however, its format is not well suited for use as a reporting checklist.

**Objectives**
To create a PG reporting checklist based on the content and structure of the AGREE II evaluation tool.

**Methods**
The AGREE II was reformatted into a reporting checklist. The content of the AGREE Reporting Checklist is based on a literature review and consensus among international PG experts. The draft checklist was reviewed by PG developers with varying levels of experience.

**Results**
The AGREE Reporting Checklist includes 23 items within six domains. Fifteen participants reviewed the draft checklist and agreed that its structure was logical and that it facilitated the inclusion of important information in PGs. Most respondents (87%) indicated that they would use the AGREE Reporting Checklist when writing a PG.

**Discussion**
Widespread adoption of the AGREE Reporting Checklist will help to minimize the publication of poorly reported PGs.

**Implications for guideline developers/users**
PG developers can use the AGREE Reporting Checklist to ensure that all necessary information is included in the PG document. PG users and journal editors can use the checklist to assess whether PGs have been well reported.

## Poster Presentations B

### (PO B-30) Frameworks for Informing Coverage Decisions for Expensive but Effective and Desirable Healthcare Interventions

First Author: Rebecca L. Morgan – McMaster University
Second Author: Leah Kelley – Queen's University
Third Author: Gordon Guyatt – McMaster University
Fourth Author: Ana Johnson – Queen's University
Fifth Author: John N. Lavis – Professor, McMaster University

**Background**
To guide decision-making about whether or not to pay for a new healthcare intervention, policymakers have access to a number of frameworks that systematically weigh scientific evidence. Each existing framework has strengths and limitations; the development of a synthetic framework based on review of what is currently available might be useful.

**Objectives**
To review and summarize available frameworks and generate a new framework taking advantage of the strengths of existing guidance.

**Methods**
Critical interpretive synthesis informed the development of a framework by purposively sampling relevant dimensions to facilitate decision-making. A systematic review was updated through 2015 in MEDLINE, EMBASE, and CRD. The GRADE Evidence-to-Decision framework provided a base for identified dimensions. Purposive sampling of health and political system studies also informed the development of an integrated framework.

**Results**
Of 2519 references, 23 studies provided potentially eligible, and 13 were purposively sampled for framework dimensions. Most dimensions identified in sampled studies fit into burden of disease, benefits and harms, values and preferences, resource use, equity, acceptability, and feasibility. The new framework includes novel dimensions highlighting alternative health options and opportunity costs added to burden of disease and resource use. Institutions, ideas, interests, external factors, and governance and financial arrangements were identified as external political or health system influences.

**Discussion**
Our review identified and integrated dimensions of a framework with health and political system factors to inform the decision-making process about new healthcare interventions.

**Implications for guideline developers/users**
This integrated framework has implications for guideline developers as they consider the essential elements of a robust decision-making framework for healthcare interventions.

## Poster Presentations B

### (PO B-31) Developing a Comprehensive Priority-based Framework for Updating Clinical Practice Guidelines (CPGs)

First Author: Afshin Jamshidi – PhD student in Industrial Engineering, Laval University
Second Author: Marie-Eve Lamontagne
Third Author: Samira Abbasgholizadeh Rahimi
Fourth Author: Daoud Ait-Kadi
Fifth Author: Angel Ruiz
Sixth Author: François Routhier

**Background**
Updating clinical practice guidelines (CPGs) is a crucial and complex process in the lifecycle of CPGs for ensuring their validity and quality. However, little attention has been paid to the process for assessing when CPGs should be updated and there is no validated criteria or comprehensive process for prioritizing CPGs.

**Objectives**
To conduct a systematic review of literature for identifying the potential criteria in updating CPGs; to validate and scale the identified criteria; and develop a comprehensive priority-based framework based on the validated criteria.

**Methods**
We searched MEDLINE, EMBASE, and CINAHL for articles and manuals that provide guidance on updating time/process of CPGs. Then, we conducted an online survey. The survey was sent by email to 83 institutions across the world and 16 authors who have published relevant articles. Finally, we developed a comprehensive prioritization process.

**Results**
We included a total of thirteen documents and we identified 18 potential criteria. 30 institutions and 5 authors answered the questionnaire (36% response rate). In the final analysis, 24 completed questionnaires (24%) were included.

**Discussion**
This is the first time that criteria for prioritization of CPGs for updating them were identified and validated. We believe that this priority based approach that minimizes unnecessary updating is more sustainable than an approach based on an arbitrary time period.

**Implications for guideline developers/users**
Evaluation and prioritization of existing CPGs based on the validated criteria can promote channelling limited resources into updating CPGs that are most sensitive to change, thus improving the quality and reliability of healthcare decisions made based on current CPGs.

## Poster Presentations B

### (PO B-32) Impact of Real Time PCR in Early Diagnosis of Acute Bacterial Meningitis in Burkina Faso

First Author: Emmanuel Sampo – Doctorant student/Medical Biologist, Laboratoire
Second Author: Professor Lassana Sangare
Third Author: Doctor Malika Congo

**Background**
Acute bacterial meningitis are frightening from their high rates of morbidityand mortality in whole world and in Burkina-Faso.

**Objectives**
To detect the main bacterial meningitis by traditional methods and real time PCR.
To compare rt-PCR than traditional methods of diagnostic.

**Methods**
From 2010 to 2012, we used and comparative study on 200 samples of Cerebrospinal fluid (CSF) at CHU-YO before the conjugate vaccine (PCV13) introduction. The Gram and the morphology were observed with electric microscope. Latex agglutination remain homogeneous (-) reaction or aggregation (+) reaction within 2 minutes. Culture was done for main bacterial meningitis isolation and rt-PCR for here DNA detection.

**Results**
we noticed 98 positive cases in Gram against 102 negative cases, 89 positive cases with latex against 111 negative cases, 56 positive cases with culture against 144 negative cases and 137 positive cases in rt-PCR against 63 negative cases. rt-PCR showed high rate 38 (67%) of Streptococcus pneumoniae against 16 (29%) for Neisseria .meningitidis and 2 (4%) for Haemophilus.influenzae b.

**Discussion**
Streptococcus pneumoniae was predominant 67% of rate compared to the two other bacteria frequency. That was similar to those related by Kafando in Burkina in 2011 (71,6% Streptococcus pneumoniae on 3252 suspect cases).rt-PCR was more sensitive 98, 21% than the traditional methods. Carbonnelle reported in 2009 that, culture and microscopy had low sensitivity 50% in early treatment. rt-PCR was a fast and accurate method of acute bacterial diagnosis.

**Implications for guideline developers/users**
This research involved patient with a brutal fever (rectal T° 38,5°C or axillar T°= 38,0°C), stiffness of nape and of neck. It involveD Laboratory diagnosis.

## Poster Presentations B

### (PO B-33) The Reporting Quality of Guideline Development Group Composition, Consensus Process and Conflicts of Interest.

First Author: Yoshihito Goto – a PhD candidate, Kyoto University School of Public Health
Second Author: Kayo Ueda – doctoral student, Department of Health Informatics in the School of Public Health, Kyoto University
Third Author: Shosuke Ohtera
Fourth Author: Yoshimitsu Takahashi
Fifth Author: Takeo Nakayama – Professor, Department of Health Informatics, Kyoto University, School of Public Health, Kyoto, Japan

**Background**
As guideline development processes vary substantially, the Guidelines International Network (G-I-N) proposed 11 key components of a high-quality and trustworthy guideline in 2012. The Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system offers systematic and transparent methods from conducting systematic review of evidence to making recommendations. Although the GRADE system has been established and covered most of 11 key components proposed by G-I-N, the descriptions of first three components, "1. Composition of Guideline Development Group", "2. Decision-Making Process", and "3. Conflicts of Interest", have not been sufficiently studied.

**Objectives**
Our objective is to examine how to report the characteristics of individual participants, groups composition, the consensus developing process on the judgements, and the procedural issue of managing conflicts of interests in clinical practice guidelines developed by using the GRADE system.

**Methods**
The study plan is as follows, the MEDLINE, Guidelines International Network web site, the National Guideline Clearinghouse and several international databases search are conducted to identify appropriate guidelines from April 2011 up to December 2015. Our reporting quality evaluation is performed using a checklist based on the AGREE (Appraisal of Guideline, Research and Evaluation) Reporting Checklist and additional dimensions relevant to guideline developers.

**Results**
We are currently conducting the analysis.

**Discussion**
We will present the results and discussion at the conference.

**Implications for guideline developers/users**
Results of this study provide circumstances of the specific challenges faced by guidelines developers.

## Poster Presentations B

### (PO B-34) Trend of Descriptions of Palliative Care in Clinical Practice Guidelines of Cancer: A Content Analysis

First Author: Kikuko Miyazaki – lecturer, Kyoto Univesity
Second Author: Miwa Hinata – Assistant professor, Showa University
Third Author: Kyoto CPGS group – study group, Kyoto University
Fourth Author: Takeo Nakayama – Professor, Department of Health Informatics, Kyoto University, School of Public Health, Kyoto, Japan

**Background**
Clinical practice guidelines (CPGs) have been developed for a wide range of medical fields, including cancer, which is currently the leading cause of death in Japan.

**Objectives**
This study aimed to identify trends in descriptions of palliative care in the cancer CPGs in Japan before and after enactment of the Cancer Control Act (2007).

**Methods**
This study used content analysis of literature.
First survey (selection period: February to June 2007). Cancer CPGs published in Japan between 2002 and 2006 were analyzed. These were reviewed from the databases of Toho University Medical Media Center and the Medical Information Network Distribution Service. Content was selected from each CPG by two investigators. Second survey (selection period: February to December 2015). The most recent versions (at the time of the 2015 survey) of the CPGs selected in the first survey were analyzed.

**Results**
Content was analyzed for 10 types of cancer. The palliative care content rate increased in all guidelines. Compared to the first survey, the palliative care content rate in the second survey increased, from (2.7%) (1076/40563 lines) to 4.5% (1325/29269 lines). However, the descriptions and content rate varied greatly among the CPGs.

**Discussion**
Comparison of the recent versions of CPGs between the two periods showed that the palliative care content rate increased about 1.7-fold after enactment of the Cancer Control Act.

**Implications for guideline developers/users**
The descriptions and content rate in each CPG vary greatly depending on the attitude and awareness about palliative care by members of academic societies who write each guideline.

## Poster Presentations B

### (PO B-35) Clinical Practice Guidelines for TM for Atopic dermatitis: An Evidence-Based Approach

First Author: Juah Lee – Senior researcher, Korea Institute of Oriental medicine
Second Author: Jiae Choi
Third Author: Sunju Park
Fourth Author: Jun-Yong Choi
Fifth Author: Myeong Soo Lee
Sixth Author: Taeyoung Choi
Seventh Author: Ji Hee Jun

**Background**
Atopic dermatitis is a type of chronic recurrent inflammatory skin disorder that is emerging as a major healthcare problem in Korea. Its emergence is attributed to rapid industrialization.

**Objectives**
These guidelines aim to provide recommendations for the diagnosis and management of atopic dermatitis in traditional medicine supported by evidence and data related to the disease.

**Methods**
Expert group devised a plan to publish the clinical guidelines and collected and analyzed currently available methodologies for the development of clinical guidelines. They collected and analyzed clinical guidelines and publications on atopic dermatitis in the fields of Western and Korean medicine from all over the world and followed this up by formulating draft guidelines that were then reviewed by the review committee. The guidelines were finalized after supplementary corrections followed by a review, final revision, and approval by the Society of Korean Medical Ophthalmology, Otolaryngology & Dermatology.
These CPGs have five recommendation grade(A, B, C, D and GPP), and four levels of evidence (High, Moderate, Low and Insufficient).

**Results**
In diagnosis and evaluation part, three recommendations were developed. In treatment part, total seven recommendations were developed.

**Discussion**
This work is expected to induce a high-quality follow-up clinical study and to establish a foundation for a Korean medicine group to assume the lead in the standardization of traditional medicine as the strongpoint of international research on traditional medicine.

**Implications for guideline developers/users**
In many cases, various therapeutic approaches may be used comprehensively in the treatment of atopic dermatitis. In addition, it is necessary to separate the goals of each therapeutic intervention in consideration of the timing of a treatment and the clinical symptoms.

## Poster Presentations B

### (PO B-36) A Fast-Track Way of Adapting Clinical Practice Guidelines at King Saud University Medical City, Riyadh, Saudi Arabia

First Author: Lubna A. Al-Ansary – Professor of Family Medicine, Head of KSUMC Guidelines Committee, Holder of Bahamdan Research Chair for Evidence-Based Health Care and Knowledge Translation, King Saud University
Second Author: Ghada A. Bawazeer
Third Author: Hayfaa A. Wahabi
Fourth Author: Manal Abou Elkheir
Fifth Author: Shaikh Iqbal
Sixth Author: Khalid Alswat
Seventh Author: Yasser S. Amer – General Coordinator KSUMC-Wide CPGs Steering Committee,, King Saud University Medical City

**Background**
In order to realize the national and international standards of accreditation. the clinical practice guidelines (CPGs) Program at King Saud University Medical City (KSUMC) was launched as a quality improvement collaborative project with Bahamdan Research Chair for Evidence-Based Health Care and Knowledge Translation in 2010.

**Objectives**
A fast-track method was needed to develop evidence-based CPGs at KSUMC

**Methods**
Following a guidelines awareness week directed to all health care professionals (HCPs) in 2011, 20 multidisciplinary teams were developed. They were trained to set priorities, search, screen, assess, select and customize the best available CPGs technically supported by the program's steering committee. The ADAPTE framework was the main reference used with highlights on other GIN resources. Due to the limited number of systematic reviewers, a modified version of this framework was used where the recommendations were either accepted or rejected but not changed. A strict peer-review process for content and methodology was employed.

**Results**
In addition to raising awareness and building capacity, 29 CPGs were approved by Dec 2015 with 10 more in progress. These CPGs were integrated with other existing projects (e.g. electronic medical records, performance management system, residency training). Preliminary implementation data suggest positive impact on patient outcomes (e.g. length of stay, prescribing of antibiotics, etc). Leadership commitment was a strength but the high turnover of team members necessitated frequent extensive training to HCPs.

**Discussion**
This model represents a quick, practical, economic method with a sense of ownership by staff.

**Implications for guideline developers/users**
Using this modified version must be replicated in other countries to assess its validity.

## Poster Presentations B

### (PO B-37) Declarations of Interest Management in Guidelines Developed by the World Health Organization

First Author: Brittany Burda – Research Associate, Kaiser Permanente Center for Health Research
Second Author: Susan L. Norris, MD, MPH, MS – The World Health Organization

**Background**
In 2010 the World Health Organization (WHO) was criticized for the inclusion of experts with conflicts of interest (COI) in the development of WHO pandemic influenza guidelines.

**Objectives**
Assess the extent to which WHO guidelines adhere to the declarations of interest (DOI) standards set forth by the WHO Handbook for Guideline Development.

**Methods**
The DOI statements for 171 guidelines approved by the WHO Guidelines Review Committee (published from 2008-2015) were evaluated to determine if they met WHO's minimum standards: (1) provide a summary of DOI; (2) describe how DOI were collected; and (3) describe how DOI were managed.

**Results**
The methods for collecting DOI were briefly described in 121 (71%) guidelines; the individuals from whom DOI were collected varied across guidelines. Almost all guidelines (91%) included a summary of DOI; over half (61%) reported at least one individual with a financial or non-financial COI. When a COI was declared, a management approach was described in 72 (77%) guidelines. Over half (54%) of the guidelines reported the individual or body that managed the DOI which also varied across guidelines. Overall, only 97 (57%) guidelines met all three of the minimum reporting requirements.

**Discussion**
The majority of WHO guidelines provide a summary of DOI, however, approaches used to collect DOI and manage COI were often inadequately described. More transparent and consistent reporting is needed improve the trustworthiness of WHO guidelines.

**Implications for guideline developers/users**
Complete and transparent reporting of DOI and appropriate management of COI are crucial to improve the trustworthiness of guidelines.

## Poster Presentations B

### (PO B-38) Development of Systematic Evaluation Method and Feedback System for Clinical Practice Guidelines in Japan

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Third Author: Toshio Fukuoka – Manager, Kurashiki Central Hospital, Okayama, Japan
Fourth Author: Toshio Morizane – Senior Visiting Researcher, Japan Council for Quality Health Care
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Sixth Author: Yosuke Hatakeyama – Assistant Manager, Japan Council for Quality Health Care, Department of EBM and Guidelines
Seventh Author: Masahiro Yoshida – Prof. of Surgery, Chief Researcher, Minds Guideline Center, Int. Univ. of Health and Welfare Japan, Japan Council for Quality Health Care
Eighth Author: Hiroyuki Sugawara – General Manager, Japan Council for Quality Health Care, Department of EBM and Guidelines
Ninth Author: Naohito Yamaguchi – Professer and Director, MInds guideline center, Japan council for Quality Health care

**Background**
Japan Council for Quality Health Care has managed evidence-based medicine (EBM) and clinical practice guidelines (CPGs) promoting project since April 2011. We have assembled a database of Japanese CPGs and established systematic CPGs evaluation method as guideline clearinghouse.

**Objectives**
To identify evidence-based CPGs developed in Japan and to describe the systematic evaluation method of CPGs.

**Methods**
We searched Japanese CPGs using 10 major databases from April 2011 to March 2016.The CPGs identified were evaluated by the CPGs evaluation expert committee using the AGREE II. In fiscal 2013, we started to compile the CPGs evaluation feedback reports composed of sectoral improvement and overall assessment. In fiscal 2015, we started to preannounce the evaluation targeted at the representatives of guidelines development group (GDG) and conduct the survey asking them whether they needed the evaluation feedback report.

**Results**
As of March 31, 2016, the following results were obtained. A total of 835 literatures were identified and after screening process, 410 guidelines were evaluated by the AGREE II instrument. Of these guidelines, 193 (47.0%) guidelines were selected for posting on our website. In the pre-announcement and the survey, among 68 GDG representatives, 58 (85.2%) needed the feedback reports, and we provided 57 feedback reports.

**Discussion**
This study indicates that about a half of evaluated CPGs meet certain standards as evidence-based CPGs and most GDG representatives need the evaluation feedback.

**Implications for guideline developers/users**
Further research on the role of feedback reports would clarify the key approaches for quality improvement of CPGs.

## Poster Presentations B

### (PO B-39) To Use and Refer Existing International Guidelines in Chinese Guidelines: A Cross-Sectional Study

First Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University
Second Author: Jia Tang
Second Author: Heng Zhang
Fourth Author: Nan Yang

**Background**
Developing practice guidelines are expensive and time-consuming. It's cost-effective and necessary to use and refer existing guidelines for developers if they decide to start a new guideline. It is still unknown about whether or how Chinese guidelines use published international guidelines when they were developing.

**Objectives**
To investigate the reference and citation of international guidelines in Chinese guidelines.

**Methods**
We electronically searched Chinese databases. The date was limited from January 1st 2015 to December 31th 2015. Two reviewers independently screened literature and extracted data.

**Results**
85 Chinese guidelines are included. Among these, 70(82.4%) have references with 49(57.6%) citing international guidelines and none reported the searching process. The top three developing institution are: 29(34.1%) of Chinese Medical Association, 8 (9.4%) of Chinese Medical Doctor Association, 7 (8.2%) of Chinese Anti-Cancer Association.49 guidelines cite 183 international guidelines and each cite 3.7 on average. The publishing year of international guidelines are: 13 (7.1%) in 2015, 42(23.0%) in 2014, 19(10.4%) in 2013.The top three countries or regions are: 72(39.3%) in America, 39(21.3%) in Europe, 14(7.7%) in various countries or regions.

**Discussion**
Most Chinese guidelines refer to international guidelines without describing searching process. Guidelines cited were developed by American mostly and ACC/AHA guidelines accounts most.

**Implications for guideline developers/users**
Searching and utilizing existing guidelines comprehensively and systematically can improve the quality of Chinese guidelines.

## Poster Presentations B

### (PO B-40) The Citation Status of Systematic Reviews on Imaging Diagnosis in Clinical Practice Guidelines

First Author: Mengshu Wang
First Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University

**Background**
The development of clinical practice guidelines (CPGs) should use and cite systematic review evidence.

**Objectives**
To investigate the citation status of systematic reviews on imaging diagnosis in clinical practice guidelines and provide guide for the development of imaging diagnosis guidelines.

**Methods**
We electronically searched PubMed databases to collect systematic reviews on imaging diagnosis. The date was limited from January 1st 2010 to December 31th 2012. Two reviewers independently screened literature and extracted data. The citation data of included systematic reviews were obtained on the Web of Science. Citation analysis method was used to analyze the citation frequency of systematic reviews on imaging diagnosis in CPGs.

**Results**
292 systematic reviews on imaging diagnosis were included, of which 94% (275/292) were indexed by Science Citation Index. The total citation frequency of these systematic reviews was 5 413 (medium: 20, range: 0 to 131). 28% (78/275) were cited by CPGs. Of which, 7% (19/275) were used as the source of the evidence of recommendations in CPGs.

**Discussion**
The ratio of systematic reviews cited by CPGs is low, the ratio of being the source of evidence of recommendations of systematic reviews in CPGs is lower, and furthermore, the citation is time-delayed.

**Implications for guideline developers/users**
Guideline developers should use and cite updated and high quality systematic reviews.

## Poster Presentations B

### (PO B-41) Recommendations on Imaging Diagnosis in Chinese Clinical Practice Guidelines: A Cross-Sectional Study

First Author: Mengshu Wang
First Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University
Third Author: Junqiang Lei

**Background**
It's unknown that how Chinese imaging diagnosis guidelines give recomendations.

**Objectives**
To investigate the recommendations on imaging diagnosis in Chinese clinical practice guidelines (CPGs).

**Methods**
We electronically searched WanFang Data, VIP, CNKI and CBM databases from inception to December 31, 2014. Two reviewers independently screened literature and extracted data.

**Results**
A total of 341 CPGs formulating the recommendations on diagnosis were included. 48.7% (166/341) guidelines developed the recommendations on imaging diagnosis (a total of 534). 25.7% (137/534) recommendations were with the symbols of quality of evidence and strength of recommendation, and 18.9% (101/534) with special words such as recommend, suggest. 22.3% (119/534) recommendations reported the strength of recommendation. Of which, 38.7% (46/119) were strong and 16.0% (19/119) were weak. However, 23.9% (11/46) strong recommendations were based on low quality of evidence. And 42.1% (8/19) weak recommendations were based on high quality of evidence.

**Discussion**
Among Chinese CPGs formulating the recommendations on diagnosis, the number of CPGs with recommendations on imaging is about 50%. And the quantity increases by years. The proportions of recommendations on imaging which report the strength of recommendation and/or quality of evidence are low. Meanwhile, the rating systems are uniform.

**Implications for guideline developers/users**
Evidence-based diagnosis clinical practice guideline is the forefront and trend of the future development of evidence-based medicine. Based on the high-quality diagnosis systematic reviews and applying the GRADE diagnosis classifying approach, it will provide significant help to develop the high-quality evidence-based diagnosis clinical practice guidelines.

## Poster Presentations B

### (PO B-42) Development and Improvement of the Clinical Protocol

First Author: Rano Jilkaidarova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Second Author: Nurgul Tashpagambetova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Third Author: Temirkhan Kulkhan – Deputy Head of Center for Healthcare Standardization, Republican Centre for Health Development

**Background**
The State Health Development Program of the Republic of Kazakhstan "Salamatty Kazakhstan" for 2011-2015, has delivered an important task: to improve the healthcare management and financing under the Unified National Health System.

**Objectives**
In order to ensure the safety and quality of health services is necessary to establish an effective and accessible system of health care provision. One of the mechanisms of quality and safety of health services is the use of international experience based on evidence-based medicine.

**Methods**
In Kazakhstan clinical practice 3 types of clinical protocols (CPs) are used: diagnostic and treatment CPs, CPs for medical rehabilitation and palliative care. The CPs data structure has developed and adapted in cooperation with Canadian Society for International Health and medical associations.

**Results**
Nowadays 766 CPs on the 4 disease groups (obstetrics and gynecology -75, Surgery- 258, pediatrics 183, therapy - 224) have been developed and reviewed from 2013 to 2015. All CPs were developed on the basis of the evidence base, using 200 Clinical guidelines developed by major international professional organizations ( NICE, SIGN etc. ).

**Discussion**
The development CPs on evidence-based medicine increases the efficiency and safety of medical services, what allows to the patients recieve quality medical care.

**Implications for guideline developers/users**
Using CPs allows to the physician to make a choice of therapy between treatment based on the opinions, and treatment based on the evidence.

## Poster Presentations B

### (PO B-43) The Introduction of CPs Developed Based on the Recommendations of Clinical Guidelines into Practical Health Care

First Author: Rano Jilkaidarova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Second Author: Nurgul Tashpagambetova – chief expert, Center of Healthcare Standardization Republican Centre for Health Development
Third Author: Temirkhan Kulkhan – Deputy Head of Center for Healthcare Standardization, Republican Centre for Health Development

**Background**
an important mechanism for quality control and safety of health services is the implementation in practical health care adapted to the conditions of the Republic of Kazakhstan recommendations of international clinical guidelines based on evidence-based medicine.

**Objectives**
one of the tools of implementation of clinical guidelines for international clinical practice guidelines in health care today is the clinical protocol.

**Methods**
introduction of clinical protocols carried out by the educational process and practical public health. Depending on the ultimate goals and objectives are developed different types of indicators to assess the effectiveness of the implementation of the recommendations of the CP: indicators of structure, process indicators, outcome indicators.

**Results**
system to ensure implementation of proven recommendations contained in the manual, practical doctors will bring the practice of medicine to the international standards of medical care, it will significantly reduce the risk of complications, deaths, reduce the frequency of the use of ineffective methods of treatment and prevention, uninformative diagnostic methods, unsafe drugs and surgical interventions .

**Discussion**
today a well-functioning system is the introduction of the CP will create a basis for continuous quality improvement in clinical practice.

**Implications for guideline developers/users**
system to ensure implementation of proven recommendations contained in the manual, practical doctors will bring the practice of medicine to the international standards of medical care, it will significantly reduce the risk of complications, deaths, reduce the frequency of the use of ineffective methods of treatment and prevention, uninformative diagnostic methods, unsafe drugs and surgical interventions .

## Poster Presentations B

### (PO B-44) Developing Service Guidance for Learning Disabilities and Behaviour that Challenges

First Author: Justine Karpusheff – Programme Manager - Social Care Guidance and Quality Assurance,
Second Author: Jane Silvester
Third Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence
Fourth Author: Fiona Glen – Programme Director Public Health and Social Care Centre, National Institute for Health and Care Excellence
Fifth Author: Peter O'Neill – Senior Technical Adviser, Public Health and Social Care Centre, NICE

**Background**
NICE is developing service guidance for people with learning disabilities and behaviour that challenges. These services are also the focus of a national improvement programme, which includes 'fast track' of new service models. The challenge this brings is how guideline development works alongside a rapidly shifting landscape. There is no agreed definition of 'service guidance', but the NICE manual indicates that it should be how services are organised and what resources are needed.

**Objectives**
To ensure that service guidance development can incorporate rapid changes to service models.

**Methods**
• Incorporating additional components to standard service guidance methods, including:
o Ensuring a robust evaluative component to the national improvement programme;
o Working with a more flexible concept of 'evidence' to incorporate emergent data;
o Use of pilot sites as expert testimony;
o Iterative review of the evidence.

**Results**
We will present findings on the steps being taken to develop a flexible process for service guidance development.

**Discussion**
Currently the methods for developing service guidance advise that review should be iterative dependent on outcome of searches. However, the manual does not go into detail on how this should be conducted. Therefore, the methodological approaches taken will themselves need to be reviewed, in order to ensure effectiveness of the guideline development process itself.

**Implications for guideline developers/users**
Guideline developers need to consider how emerging practice may inform service guidance, whilst ensuring that the evidence and data used is robust and methods followed maintain expected standards.

## Poster Presentations B

### (PO B-45) Involvement of People with Learning Disabilties in Guidance Development - Challenges and Opportunities

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Third Author: Gill Leng – Deputy Chief Executive and Health and Social Care Director, National Institute for Health and Care Excellence
Fourth Author: Fiona Glen – Programme Director Public Health and Social Care Centre, National Institute for Health and Care Excellence
Fifth Author: Peter O'Neill – Senior Technical Adviser, Public Health and Social Care Centre, NICE

**Background**
NICE is developing two guidelines that focus on the care of people with learning disabilities. Ensuring this population is meaningfully involved in guideline production inevitably brings challenges, but also opportunities.

**Objectives**
• Ensure that people with learning disabilities are meaningfully involved.

**Methods**
It is acknowledged that it is difficult for this population to influence policy "because involvement mechanisms, such as focus groups are not accessible to people with learning disabilities" (Turner and Robinson, 2011, p.5). And yet focus and reference groups are the usual mechanism for representation of this population.
To ensure meaningful inclusion of people with learning disabilities, a number of adjustments have been made to the standard NICE process. These are:
• training for staff, committees and Chairs;
• use of facilitators to support the process;
• translation into Easy Read.
These adjustments are being reviewed, alongside development time needed and the resources required.

**Results**
We will present findings on how involvement on Guideline Committees has impacted upon process, whilst presenting the challenges, but also opportunities to improve development.

**Discussion**
Whilst involvement of people as full members of a Committee raises a number of challenges, adjustments to process, demonstrate that inclusion is possible. Moreover, inclusion may highlight opportunities to improve processes. For example, easy read presentations of economics and declarations of interests were welcomed by all members as more accessible.

**Implications for guideline developers/users**
It is possible to involve people with learning disabilities on a guideline committee with reasonable adjustments. This presents both challenges and potentially opportunities for guideline development.

## Poster Presentations B

### (PO B-46) Selection of Clinical Questions and Outcomes in Guidelines——A Cross-Sectional Study of Briefs in Gout Guideline

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Second Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Third Author: Yang Yu
Fourth Author: Xiaoyang Song
Fifth Author: Shujun Xiao
Sixth Author: Xiaoqin Wang
Seventh Author: Yaolong Chen – Evidence-Based Medicine Center of Lanzhou University

**Background**
Clinical questions and outcomes in guidelines decide the context and the amount of recommendations.

**Objectives**
To explore the methods and process to select clinical questions and outcomes in guidelines by taking gout guideline as an example.

**Methods**
This study contained five steps: 1) searched guidelines and systematic reviews for gout and collected clinical questions and outcomes; 2) formed a summary table of questions and outcomes by removing duplicates and merging the similar ones; 3) Invited clinicians for further revision and compensation to make a list of questionnaire based on the importance of clinical problems (the score level 1 to 7 ) and outcomes (the score level 1 to 9) ; 4) made a questionnaire in the kick-off meeting of diagnosis and management guideline of gout and the field of National Division of Rheumatology in china; 5) formed final clinical questions and outcomes based on the finding of our survey.

**Results**
14 guidelines and 38 systematic reviews were retrieved, 125 clinical questions and 180 outcomes were collected; 44 questions and 45 outcomes were synthesized after duplicates removal. 20 experts gave scores in the kick-off meeting and investigated 285 rheumatologists in 101 hospitals. The final clinical questions and outcomes would be reported in Guidelines International Network (G-I-N) conference 2016.

**Discussion**
We explored the methods and principles in selection of clinical questions and outcomes based on guidelines for diagnosis and management of gout.We acquired them on account of literature review and expert investigation and identified them by Delphi.

**Implications for guideline developers/users**
We expected to provide reference for guideline developers.

## Poster Presentations B

### (PO B-47) Temporal Trends in the Quality of Clinical Practice Guidelines

First Author: Steven Lascher
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Third Author: Nancy Sullivan
Fourth Author: Tatyana Shamliyan
Fifth Author: Megan Sands-Lincoln
Sixth Author: Maria Middleton
Seventh Author: Gloria Klaiman
Eighth Author: Karen Schoelles
Ninth Author: David Goldmann – Scientific Committee

**Background**
The Institute of Medicine (IOM) published a set of guideline standards in March 2011. The AGREE II tool is useful in assessing guideline quality and can be used to track changes in quality over time.

**Objectives**
To determine whether there is a difference in overall quality scores between guidelines produced prior to 2012 and those produced during and after 2012, one year after the IOM standards were published.

**Methods**
We prioritized clinical topics using electronic product usage data. The AGREE II instrument covering six quality-related domains was used by 2 independent assessors, results were recorded in Excel© and Stata 13.1© was used for analysis. We used descriptive statistics, t-tests with unequal variances and regression methods.

**Results**
754 English language guidelines from 6 geographical regions were assessed. The overall mean quality score (across all domains) was 4.98 (SD 1.04) out of 7. When dichotomized by time period (pre-2012 and after 2011), there was statistically significant improvement after 2011 in overall quality with a mean difference of 0.19 (95% CI 0.04, 0.34). For each domain, there was statistically significant improvement in scores except for 'Applicability", the lowest scoring domain.

**Discussion**
Improvement in overall AGREE II scores after 2011 may be related to increased awareness of quality standards.

**Implications for guideline developers/users**
Guideline quality has improved since 2011 when the IOM standards were published. Increasing awareness and application of such standards will hopefully increase guideline quality further. We plan to explore temporal trends in guideline quality in greater detail.

## Poster Presentations B

### (PO B-48) Successful Implementation of Opioid and Chronic Pain Guidelines

First Author: Jeffrey Harris – Senior Physician, The Permanente Medical Group

**Background**
The US and other countries are in the midst of a declared epidemic of prescription opioid overdoses and deaths. A number of organizations have created guidelines for appropriate opioid use, but the ultimate effect of these endeavors on population health will depend on successful adherence to guideline recommendations.

**Objectives**
To define and compare common elements of successful guideline implementation in Marin County CA, at a very large group practice, and at other organizations.

**Methods**
We examined prescription opioid trends using internal data and information from a state Prescription Drug Management Program and compared it temporally to various implementation techniques.

**Results**
Organizational and leadership support, guideline recommendation content, feedback, use of pharmacist case managers, community education to affect demand, and training programs appeared to be correlated in reduction in inappropriate opioid prescription.

**Discussion**
Guidelines alone do not guarantee adherence. Organizational support, focused training including modeling patient interactions, drug utilization management, electronic health record prompts, and feedback are important ways to increase guideline adherence and greater patient safety.

**Implications for guideline developers/users**
Suggestions for implementation and metrics attached to guidelines increase the possibility that guideline recommendations, patient safety, and quality of care will be improved. Internal development of implementation plans increases buy-in by health care providers, enhancing the likelihood of success.

## Poster Presentations B

### (PO B-49) Developing a Web Based Interactive Program to Guide the Implementation of Evidence Based Dementia Care Guideline

First Author: Myonghwa Park – Professor, Director, Research and Education Center for Evidence Based Nursing Knowledge College of Nursing Chungnam National University
Second Author: Miri Jeong – A Nurse, Chungnam national university hospital
Third Author: Mihyun Lee

**Background**
Although several dementia care guidelines are currently available to caregivers, few are broadly accessible in real practice settings. Evidence based practice (EBP) ensures that the practitioners in dementia care settings will base their clinical judgment on the available evidence and patient and family centered care.

**Objectives**
The purpose of this study was to develop web-based interactive program to guide the implementation of evidence based dementia care guidelines.

**Methods**
The web based interactive program named EBP-Dementia was developed to tutor the users in learning the implementation of evidence based dementia care guidelines. The program presents the introduction of EBP, teaches the actual skills in guidelines implementation process (PICO, Evidence & Recommendation, Appraisal, Implementation, and Evaluation), and provides the toolkits to implement the recommendations.

**Results**
Each module of EBP-Dementia is based on the assumption that best learning occurs in the situation of solving realistic challenges. Therefore, modules present clinical scenarios in dementia care settings. The program guides the user in interacting with the contents by completing a structured quiz and toolkit.

**Discussion**
Data results and users' opinions for learning evidence based dementia care were promising. In each module, users focused on clinical questions, recommendations, implementation, and evaluation. In reviewing the formulated forms by the uses, their performance was adequate for first attempting.

**Implications for guideline developers/users**
The findings in this study suggest that the web based program can be an effective tool to facilitate the implementation of evidence based guidelines. Enhanced interactive use of implementation toolkits can lead to more active participation in EBP implementation.

## Poster Presentations B

### (PO B-50) Developing and Using Tools and Resources to Support Implementation of Guidelines on Medicines Use and Practice

First Author: Louise Picton – Senior Medicines Adviser, Pharmacist
Second Author: Gregory M. Moran – Medicines adviser, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Third Author: Shelly Patel – Medicines Adviser, NICE
Fourth Author: Johanna Hulme – Associate Director, Medicines Advice, Medicines and prescribing programme, National Institute for Health and Care Excellence
Fifth Author: Judith Thornton – Associate Director, Medicines Evidence and Advice, NICE Medicines and prescribing programme, National Institute for Health and Care Excellence

**Background**
NICE has developed a range of tools and resources to support health professionals and commissioners with local implementation of NICE guidelines on medicines use and practice.

**Objectives**
To examine the benefits of tools/resources to support implementation of NICE guidelines.

**Methods**
Implementation tools/resources developed by NICE. Some tools/resources cover the overall guideline, while other resources support specific aspects:
Case scenarios – an educational resource for individual or group learning (e.g. medicines optimisation).
Baseline assessment tools – to help identify how well local practice is aligned with guideline recommendations (e.g. managing medicines in care homes).
E-learning tools – to support individual learning (e.g. antimicrobial stewardship).
Checklists – to help people implement specific recommendations (e.g. care homes medicines policy).
Competency frameworks – to help people demonstrate their competence in providing recommended care or services (e.g. Patient Group Directions).

**Results**
Case scenarios for 5 guideline topics used in facilitated group learning sessions at NICE implementation workshops, enabled 1000+ people to discuss key issues with their peers.
At local learning events for GPs, case scenarios on antimicrobial stewardship promoted the key messages of the guideline.
During local primary care events for care home managers and staff, the policy checklist facilitated discussions about reviewing medicines policies.

**Discussion**
Offering a range of context-specific implementation tools/resources and engaging with local health professionals supports successful implementation of guidelines. Adopting a multifaceted approach may have greater effects in helping people change their practice.

**Implications for guideline developers/users**
Developers should consider tools/resources to support local implementation of guidelines. In addition, the NICE Endorsement programme allows formal endorsement of local tools by NICE.

## Poster Presentations B

### (PO B-51) Communicating Guideline Recommendations Using Graphic Narrative versus Text-Based Broadcast Screensavers

First Author: Lauren Sinnenberg – Medical Student, Perelman School of Medicine at the University of Pennsylvania
Second Author: Craig A. Umscheid, MD, MSCE, FACP – Associate Professor of Medicine and Epidemiology; Director, Center for Evidence-based Practice; Medical Director, Clinical Decision Support, University of Pennsylvania
Fourth Author: Zachary F. Meisel – Assistant Professor, Department of Emergency Medicine, Perelman School of Medicine at the University of Pennsylvania
Third Author: Damien Leri – Innovation Software Engineer, Innovation Center, University of Pennsylvania

**Background**
Published guidelines recommend against the use of acid suppressive therapy (AST) for stress ulcer prophylaxis in low risk inpatients.

**Objectives**
We sought to determine internal medicine residents' retention of guideline recommendations communicated through graphic narrative and text-based broadcast screensavers.

**Methods**
Text-based and graphic narrative broadcast screensavers were displayed on clinical workstation computers of inpatient units in an academic healthcare system over a nine month period. Fourteen months later, an electronic survey was emailed to internal medicine residents in the healthcare system asking about the recollection of guideline recommendations disseminated through the screensavers, and changes to AST prescribing behavior.

**Results**
72% (70/97) residents responded to the survey. 100% answered that guidelines were somewhat or very important in driving treatment decisions. When seeking this information, 99% used "summary resources" (eg. UpToDate), 77% used institution guidelines, 71% used journal articles, 61% used Federal guidelines, and 53% used society guidelines. When asked if they recognized blurred versions of the screensaver slides, fewer recognized the graphic narrative compared to the text-based screensaver (60% vs 77%, p=0.03). However, more recalled the topic of the graphic narrative compared to the text-based screensaver (71% vs 2%, $p < 0.001$). 53% indicated they prescribed less ASTs than one year prior, although only 8% directly attributed their change to the screensavers.

**Discussion**
Broadcast screensavers used on clinical workstations show potential as instruments for guideline dissemination. Graphic narrative screensavers may provide improved retention of guideline content compared to text-based screensavers.

**Implications for guideline developers/users**
Graphic narrative broadcast screensavers show potential as an instrument for dissemination of guideline content.

## Poster Presentations B

### (PO B-52) Adapting Clinical Practice Guidelines: An Example of Introducing NICE Guidance on the Diagnosis of Autism in Libya

First Author: Omnia Abdulrazeg – Technical Analyst, National Institute for Health and Care Excellence (NICE), UK
Second Author: Afaf Badi – Consultant Paediatrician, Benghazi Children's Hospital, Libya

**Background**
Diagnosing Autistic Spectrum Disorder (ASD) in Benghazi, Libya is usually carried out by a single health care professional (HCP). However, NICE guideline (CG128) recommends that a multidisciplinary team (MDT) make the diagnosis.

**Objectives**
To implement this NICE recommendation in an outpatient setting by forming a MDT consisting of: a paediatrician, educational psychologist (EP), audiologist (for hearing test only), and social worker for family support. Speech and language was assessed by a paediatrician with the support of a speech and language therapist (SALT).

**Methods**
A prospective study was carried out on 100 children diagnosed with ASD by a single HCP in Benghazi Children's Hospital between January and December 2013. The initial diagnosis of ASD was re-assessed by a paediatrician, with onward referral to remaining MDT with the final diagnosis being made by the team.

**Results**
100 children, between 2 to 18 years old were reassessed. The main symptoms were speech difficulties (98%), social difficulties (83%) and poor communication skills (76%). Prior hearing tests had not been performed in 37% of children. Assessment by the MDT confirmed ASD diagnosis in 74 children. ASD was ruled out in 26 children (10 had neurological causes, 9 had speech delay without social or communication skills difficulties, 7 had genetic causes with complex neurodevelopmental disorders).

**Discussion**
Diagnosis of ASD can be improved by implementing NICE guidance on MDT diagnosis and this allowed 26% of children who did not have ASD to receive a correct diagnosis.

**Implications for guideline developers/users**
This study highlights the need for high quality, evidence-based guidance on the diagnosis of ASD.

## Poster Presentations B

### (PO B-53) Partnering with Youth and Families to Disseminate Mental Health Practice Guidelines: An Engagement Framework

First Author: Kathryn Bennett – Professor, McMaster University
Second Author: Purnima Sundar
Third Author: Sarah Cannon
Fourth Author: Stephanie Duda
Fifth Author: Zachary Johnstone
Sixth Author: Lucie Langford
Seventh Author: Grace Loucks
Eighth Author: Assia Messaoudi
Ninth Author: Holly Smith

**Background**
Partnering with youth and family members (YFM) to create research dissemination tools can ensure tool content aligns with their information needs, is easy to use, and facilitates uptake of evidence-informed health services. However, despite recognition of the value of YFM input, little is known about how to meaningfully engage them in research dissemination.

**Objectives**
To create a framework to guide YFM engagement in the design of a child and youth mental health (CYMH) practice guideline (PG) website repository.

**Methods**
YFMs (4 youth; 2 parents) participated in a three step process: i) Focus group; ii) Identification of framework engagement elements guided by the Patient Centered Outcomes Research Institute Spectrum of Patient and Stakeholder Engagement/Principles; iii) Consensus exercise to quantify agreement with framework elements.

**Results**
Three focus group themes emerged: PGs are a valuable resource for YFM, but are unfamiliar to them; YFM engagement in website development is important; YFMs can identify specific roles/responsibilities. An engagement framework was created consisting of 2 learning goals (understanding PGs; characteristics of trustworthy PGs) and 4 roles/responsibilities (translation of PG recommendations into YFM friendly statements; identification of PG weaknesses with respect to YFM needs; development of solutions to address weaknesses; development of dissemination strategies). Agreement with framework elements ranged from 66-100%.

**Discussion**
An engagement framework was created that can be easily communicated, implemented and evaluated.

**Implications for guideline developers/users**
The framework can inform the development of workshops for YFM that address the 2 learning goals and prepare them for the 4 roles/responsibilities identified.

## Poster Presentations B

### (PO B-54) A Digital Environment Containing Acute Care Information from Guidelines. A Pilot in Neurology

First Author: Antoon Lamberts – Guideline developer/advisor, Kennisinstituut van Medisch Specialisten / Knowledge Institute of Medical Specialists
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Third Author: Elvira den Breejen – Guideliner developer/Advisor, Kennisinstituut van Medisch Specialisten / Knowledge Institute of Medical Specialists

**Background**
In the Netherlands the implementation of guidelines is much discussed. In acute care settings where time is of the essence it is challenging to adhere to the wide range of guidelines. The question arises whether it is possible to create a tool which is able to retrieve and present all relevant data on acute care described in clinical guidelines?

**Objectives**
1. Identify all key questions addressing acute neurological care in Dutch guidelines.
2. Explore which acute care topics are not covered in guidelines.
3. Create a tool to make information about acute neurological topics readily available in acute care settings. An 'Acute Neurology' environment.

**Methods**
In the Netherlands all recently published guidelines are admitted to the national Guideline Database. Guidelines describing any aspect of acute neurological care were identified using this database. Then, all identified modules were assessed to determine whether specific information on acute neurological care was missing.

**Results**
Fifteen guidelines with a total of 97 modules were identified containing relevant information on acute neurological care. An 'Acute Neurology' environment was created where all this information easily available using a mobile device.

**Discussion**
Guidelines do not contain all information needed in an acute setting. Especially information with regard to diagnostic testing and prescribing medicines is missing. A well-developed protocol may be more useful. It is questionable whether the Guideline Database is the proper place to develop an 'Acute Care' environment.

**Implications for guideline developers/users**
Reconsider whether guidelines are the right place to describe acute care information.

## Poster Presentations B

### (PO B-55) Prioritization Strategies for Updating Health Decision Making Tools: A Systematic Review

First Author: Hector Pardo-Hernandez – Iberoamerican Cochrane Centre - Biomedical Research Institute Sant Pau (IIB Sant Pau)
Second Author: Monica Ballesteros
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Fifth Author: on behalf of the Working Research Group

**Background**
There is a lack of consensus on the optimal methodology to prioritize the update of clinical guidelines (CGs), systematic reviews (SRs), or health technology assessments (HTAs). Since organizations are shifting from developing to updating, guidance on prioritizing when updating will optimize resource use.

**Objectives**
To identify, describe and evaluate strategies to prioritize the update of CGs, SRs, or HTAs.

**Methods**
We included studies that describe or evaluate strategies to prioritize the updating of CGs, SRs, or HTAs. We searched MEDLINE (PubMed, 1966 – March 2016) The Cochrane Methodology Register (The Cochrane Library, Issue 3, 2016), and the G-I-N and HTA Conferences (2011 - 2015). There were no language or type of publication restrictions. Two authors independently selected studies and extracted data. Findings were summarised narratively and in tables, disaggregated per type of document.

**Results**
We identified 4207 references, of which 27 were selected for full-text assessment. Finally, 17 studies were eligible, five of which corresponded to prioritization in CGs, ten in SRs, and two in HTAs. We are currently reviewing the prioritization strategies identified and will present the final results at the 13th G-I-N Conference (Philadelphia, 2016).

**Discussion**
There is a need to critically review the available research on prioritization for updating health decision making tools, including guidelines. This SR will inform a prioritization tool that is currently being developed.

**Implications for guideline developers/users**
Given the high volume of health decision making tools eligible for updating, organizations need tools to prioritize those in greatest need of an update.

## Poster Presentations B

### (PO B-56) Adaptation of Guideline-Based Surgical Site Infection Definitions into Computable Rules

First Author: Jeremy Michel – Clinical Informaticist, ECRI Institute and The Children's Hospital of Philadelphia
Second Author: Dean Karavite
Third Author: Rachel Ross
Fourth Author: Robert Grundmeier
Fifth Author: Susan Coffin

**Background**
Surgical site infections (SSI) account for almost one third of hospital acquired infections and cause significant morbidity, mortality and cost. In 1999, the CDC published a Guideline for Prevention of Surgical Site Infections which included the National Healthcare Safety Network (NHSN) definition of a reportable SSI. The NHSN definition has undergone frequent revisions. SSI reporting typically relies upon manual chart review, a labor-intensive process which fails to identify all SSI and has poor inter-rater reliability.

**Objectives**
Encode the reportable SSI definition to support the development of an electronic surveillance tool.

**Methods**
We used the Guideline Elements Model (GEM) to parse individual elements of the SSI definition and extracted all pertinent clinical concepts. We mapped concepts to representative codes from standard clinical terminologies and reformatted the definition to support computability.

**Results**
The 2015 SSI definition contained 24 clinical concepts. We identified a standard-derived code for each clinical concept. One concept (incision deliberately reopened) also required a temporal expression. Five "if-then" statements were required.

**Discussion**
GEM facilitated identification of clinical concepts and appropriately structured the complex recommendation logic for future use. A large number of clinical concepts were necessary to identify a reportable SSI, representing a significant burden for infection preventionists who currently identify these concepts by manual chart review.

**Implications for guideline developers/users**
The SSI guideline requires accurate and efficient identification of SSI to assess the impact of prevention activities. GEM-based analysis identified the concepts and logic needed to create an automated SSI surveillance tool.

## Poster Presentations B

### (PO B-57) Recent Trends in the Usage of the National Guideline Clearinghouse and the National Quality Measures Clearinghouse

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Second Author: Asim Mujahed
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Fourth Author: Jonathan Treadwell
Fifth Author: Lisa T. Haskell – Project Manager - National Guideline Clearinghouse, ECRI Institute
Sixth Author: Mary Nix – Acting Director, Divison of Decision Science & Patient Engagement; Center for Evidence and Practice Improvement, Agency for Healthcare Research and Quality
Seventh Author: Vivian Coates, MBA – ECRI Institute

**Background**
The Agency for Healthcare Research and Quality's National Guideline Clearinghouse (NGC) and National Quality Measures Clearinghouse (NQMC) are public websites that provide detailed information on clinical practice guidelines (CPG) and quality measures, respectively, to aid in their dissemination and use.

**Objectives**
To characterize users and usage trends of NGC and NQMC

**Methods**
Using web analytics data and descriptive statistics, we quantify and characterize trends in visits from 2010 to 2015. We also use survey data to characterize the users of the websites and their primary reasons for visiting the website.

**Results**
Visits rose from 1.39 million in 2010 to 3.66 million in 2015 for NGC and from 80,615 to 352,271 for NQMC. Visits coming from mobile devices increased from 2010 to 2015 from 1.6% to 10% for NQMC and 1.7% to 20.7% for NGC. After North America and British Isles, top countries accessing the websites were India, Australia, Italy, Philippines and Saudi Arabia. Top utilizers identified by survey were healthcare providers, researchers, students, and healthcare administrators, identifying the primary reasons for visiting as finding or determining availability of CPG or measures and research.

**Discussion**
Use of both NGC and NQMC has risen several fold since 2010. The dramatic rise of mobile device access highlights the importance of mobile-optimized website design.

**Implications for guideline developers/users**
Both NGC and NQMC continue to provide value to healthcare providers, students, researchers, educators, healthcare administrators, and the public in the US and throughout the world.

## Poster Presentations B

### (PO B-58) A Proposal for an Out-of- Range Glycemic Control Safety Measure for High Risk Older Adults with Diabetes

First Author: Leonard M. Pogach – Research Physician, Department of Veterans Affairs New Jersey Healthcare System
Second Author: Chin-Lin Tseng
Third Author: Orysya Soroka
Fourth Author: Miriam Maney
Fifth Author: David Aron

**Background**
Nationally endorsed glycemic measures for seniors do not address co-morbid status and medications as recommended by guidelines.

**Objectives**
Compare rates and facility rankings of combined over-treatment (OT, HbA1c < 7%) and under-treatment (UT, HbA1c >9%)) to HbA1c < 8% in high-risk seniors.

**Methods**
Cross-sectional linked clinical and administrative data of Veterans Administration patients ≥65 years in fiscal year (FY) 2012 receiving anti-glycemic agents other than metformin alone within 60 days prior to the last HbA1c in FY2013.
Patient-level rates in FY2013 were stratified by age and co-morbid conditions and facility-level rates and rankings for OOR and HbA1c < 8%.

**Results**
Of 303,097 patients; 58.3% were 65-75, and 41.7% >75 years old. 57.8% and 64.4%, respectively, had at least one serious condition; 61.1% and 53.7% respectively received insulin. Of those 65-75 years, 65.7% had HbA1c < 8% but 47.4% were OOR (33.4% OT, 14% UT). For patients >75 years 48.1% were OOR (39.2% OT, 8.9% UT) and 65.0% had HbA1c < 8%. Facility-level rates for OOR for patients 65-75 years ranged from 33.7 to 60.4% (median 47.4%), with a moderate inverse correlation between HbA1c < 8% and OOR performance rankings (Spearman Rank Correlation Coefficient =-0.41).
Among the best performing 20% facilities on the HbA1c < 8% measure, 14 of the 28 ranked in the worst performing 20% on the OOR measure; 12 of the 27 of worst performing 20% facilities based on HbA1c < 8% ranked in the best performing 20% on OOR.

**Discussion**
The HbA1c < 8% measure does not balance benefits and risks.

**Implications for guideline developers/users**
Measures for older adults should address significant co-morbid conditions, medications, and short-term metabolic risks.

## Poster Presentations B

### (PO B-59) Fulfillment of National Recommendations for Cardiac Rehabilitation – Mapping Change After Launch of a New Guideline

First Author: Cecilie L. Egholm – PhD student, Department of Internal Medicine, Holbaek Hospital, and Danish Knowledge Center for Rehabilitation and Palliative Care
Second Author: Henriette Rossau
Third Author: Per Nilsen
Fourth Author: Gitte Bunkenborg
Fifth Author: Morten Hulvej Rod
Sixth Author: Ann-Dorthe Zwisler

**Background**
A new cardiac rehabilitation (CR) guideline was recently developed in Denmark, for the first time under the auspices of the national health authorities. The guideline is to be implemented into both hospitals and municipalities, due to shared responsibility for rehabilitation services. At launch of the guideline, there was a paucity of knowledge of the actual gap between guideline recommendations and practice.

**Objectives**
To investigate the extent to which Danish CR services in hospitals and municipalities fulfil the guideline recommendations just prior to and in the years following the launch of the new national guideline.

**Methods**
A longitudinal survey, including all Danish hospital departments and municipalities (N=134) offering CR services. A web-based questionnaire was distributed at baseline and two-year follow-up to intermediate level health-staff. Adherence to guideline recommendations was assessed as "fulfilled" or "not fulfilled", and calculated on aggregated level as n/N. Differences between baseline and follow-up were statistically analysed. Organizational level data were obtained from national registries and added to analyses to assess association with adherence.

**Results**
The survey reached >82% response. In hospitals, overall fulfilment of recommendations was high, with a few exceptions. Adherence to one recommendation improved. Municipality and organizational level data are in progress.

**Discussion**
Preliminary results indicate lower guideline adherence in municipalities, which represents a challenge to the continuity of care. There are methodological challenges studying nationwide disseminated guidelines, lacking possibility of an interventional study design.

**Implications for guideline developers/users**
Results may contribute to turning attention to areas of relative deficit and target national and local improvement initiatives.

## Poster Presentations B

### (PO B-60) Assessment of Consensus Methods and Panel Compositions in Developing Guideline-Based Quality Indicators

First Author: Kayo Ueda – doctoral student, Department of Health Informatics in the School of Public Health, Kyoto University
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Third Author: Shosuke Ohtera
Fourth Author: Yoshimitsu Takahashi
Fifth Author: Takeo Nakayama – Professor, Department of Health Informatics, Kyoto University, School of Public Health, Kyoto, Japan

**Background**
The quality indicators (QIs) are one of important ways to measure and improve quality of care. To develop them, consensus methods are often used to systematically argue the evidence with expert opinion. Recently, guideline-based QIs developments have been proposed as an efficient, timeless, and inexpensive way. Therefore, in 2016 the G-I-N Performance Measures Working Group published a set of consensus-based reporting standards for this method. Composition of the panel members affects making QIs, however, there is no information detailing consensus method processes and panel compositions.

**Objectives**
Our aim is to describe and compare how to consensus method processes and panel compositions in developing guideline-based QIs.

**Methods**
We searched medical literature databases. For the purpose to compare methodological approaches, we randomly sampled articles and assess how to report detailed information on consensus processes and panel composition.

**Results**
We are conducting the analysis.

**Discussion**
Discussion will be reported at the conference.

**Implications for guideline developers/users**
There is a need for more transparent and feasible framework to development and assessment of guideline-based QIs. Our study will help the quality indicator community to make recommendations when developed guideline-based QIs.

## Poster Presentations B

### (PO B-61) How to Facilitate Utilization of the Clinical Practice Guidelines in the Primary Care?

First Author: Jae G. Kim – Director of Internall Medicine, Chung-Ang University College of Medicine, Chung-Ang University Hospital
Second Author: Hyun Kang
Third Author: Sung-Goo Chang

**Background**
The Korean Academy of Medical Sciences (KAMS) has developed the clinical practice guidelines (CPGs) of hypertension and diabetes for the primary care, sponsored by the Centers for Disease Control and Prevention of Korea. The panel, which consisted of internal medicine, family medicine and general practitioner in the primary care, was established to monitor utilization status of the developed CPGs.

**Objectives**
To determine the utilization status, facilitation and barrier factors of CPGs through a survey on the panel.

**Methods**
Proportional sampling of 662 subjects was performed based on 2012 National Health Insurance Statistical Yearbook. Online survey was conducted.

**Results**
Four hundred fifty six of 662(68.9%) subjects replied the survey on 2015. Application rate of recommendations, satisfaction and reliability were high in overall. However 1) The percentage of patients maintaining a glycosylated hemoglobin (HbA1c) level continuously for about a year 2) the percentage of patients testing albuminuria annually 3) the percentage of patients who underwent fundus examination 4) the percentage of patients inoculating with Streptococcus pneumoniae and human hepatitis B vaccine were low in diabetes patients and the percentage of patient applying the recommendations for antiplatelet therapy was low in hypertensive patients.

**Discussion**
Based on the analysis, barrier factors for utilization of guideline recommendations were 1) Discrepancies between the recommendations and insurance standards 2) Increased consumption of medical resources in accordance with applying recommendations 3) Medical doctors' misunderstanding of insurance standards..

**Implications for guideline developers/users**
In order to facilitate utilization of the guidelines, not only the improvement of government policy but also the education of medical doctors must be met.

## Poster Presentations B

### (PO B-62) Clinical Practice Guideline (CPG) Implementation for Diabetic Ketoacidosis (DKA) Emergency Department Treatment

First Author: Jacqueline A. Bartlett, PhD, RN – Director of Evidence Based Practice, Children's Mercy--Kansas City
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Fourth Author: Ibad Siddiqi, PharmD – Pharmacy Team Leader, Children's Mercy--Kansas City
Fifth Author: Janet L. Benson, MS – Clinical Decision Support Manager, Children's Mercy--Kansas City
Sixth Author: Mary E. Hunter, BSN, RN, CCRN-K – Quality Improvement Consultant, Children's Mercy--Kansas City
Seventh Author: Jeffrey Michael, DO, FAAP – Medical Director of Evidence Based Practice, Children's Mercy--Kansas City

**Background**
In 2012 a DKA CPG was developed establishing standardized fluid resuscitation and insulin treatment for pediatric DKA patients, resulting in a 54% reduction in intensive care admissions. In 2013, point-of-care beta-hydroxybutyrate (POC BOHB) testing was FDA approved for clinical use.

**Objectives**
The objective for Phase II is the establishment of POC BOHB testing for diagnosis and treatment and the development of phased treatment order sets (PTOS).

**Methods**
In 2014-2015, 170 pediatric patients were evaluated to identify a pediatric POC BOHB value predictive for DKA. In March 2016, quality improvement methodologies were employed to measure time to POC BOHB, time to insulin treatment, and emergency department length of stay (ED LOS).

**Results**
The optimal POC BOHB value predictive for pediatric DKA is 3.3 mmol/L. In December 2015, PTOS were incorporated into the electronic medical record. The PTOS are:
• DKA: POC BOHB > 3.3 mmol/L.
• New diabetic with hyperglycemia not in DKA: POC BOHB < 3.3 mmol/L.
• Known diabetic with hyperglycemia not in DKA: POC BOHB < 3.3 mmol/L.
These PTOS reflect standardized care for each diagnostic category. Preliminary results show reduced time to POC BOHB acquisition, but not time to insulin or ED LOS.

**Discussion**
Our DKA CPG utilizing POC BOHB for diagnosis and care shows promise, resulting in improved acquisition of point of care testing. Stakeholder engagement to increase CPG adherence coupled with quality initiatives to improve patient outcomes is ongoing.

**Implications for guideline developers/users**
Treatment recommendations linked to user-friendly electronic order sets and employing inter-disciplinary quality improvement methodologies can improve CPG adherence and outcomes over time.

## Poster Presentations B

### (PO B-63) Reduction of Postoperative Nosocomial Infections in Adults - Improving Oral Hygiene Preoperatively

First Author: Palle Larsen – Post.doc., project leader, Center of Clinical Guidelines - Danish Clearinghouse
Second Author: Anita Tracy
Third Author: Preben U Pedersen

**Background**
Nosocomial infections are a significant contributor to patient morbidity and mortality. Furthermore length of hospital stay and total hospital costs are increased. Thoracic surgery, mechanical ventilation and/or admission to an intensive care unit are known to increase patients' risk for nosocomial respiratory tract infection. Patients can prevent infection by systematic preoperative oral care at home before surgery.

**Objectives**
To implement recommendation from a clinical guideline that state: "Patients who are scheduled for at thoracic surgical procedure are strongly recommended to carry out systematic oral hygiene."

**Methods**
For the objectives of this project the Joanna Briggs Institute's Practical Application of Clinical Evidence System and Getting Research into Practice audit tool were used. A local clinical best practice sheet was developed and approved. A letter recommending oral hygiene and with references to a homepage with information for patients and staff was sent to all elective patients. Information on patients' compliance with the recommendation and use of the homepage was gathered at admission.

**Results**
The implementation period was set to 6 month. During this period 92% of all patients complied with recommendation of oral hygiene. Less that 10% used the homepage, but homepage was positively evaluated by those who used it. A subgroup of acute admitted patients who were waiting for surgery in a medical ward was not informed about the oral hygiene.

**Discussion**
Patients complied with the recommendation in a guideline.

**Implications for guideline developers/users**
This guideline was meaningful for patients and for the health care sector it is a simple strategy to reduce nosocomial infections and use of antibiotics

## Poster Presentations B

### (PO B-64) The Degree of Knowledge of the CPG's Purpose and Their Relationship as a Primary Strategy Implementation

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**Background**
to increase the acceptability and use of CPG in clinical decision-making is undeniable the need for a process of phased implementation, which includes a step of persuasion to make positive attitudes to change, a stage that will test the acceptability of CPG and the stage of final adoption of the key recommendations. It's required a strategy where there is an "agent of change" to the doctors in training since they are the most prone to accept and create changes.

**Objectives**
To estimate the percentage of conceptual knowledge, adoption and interpretation of the CPG to reroute actions for the adoption and implementation of CPG incorporating multifaceted interventions that affect in innovative diffusion theories, behavior change models and aspects related to theories of health education

**Methods**
To evaluate basic aspects of CPG using a questionnaire to health professionals in training undergraduate and postgraduate. To estimate the percentage of conceptual knowledge, adopting and CPG interpretation

**Results**
The 56% knows how to integrate a CPG, 36% associated the CPG as an improve element in the medical care and 91% does not interpret properly the evidence and recommendations

**Discussion**
to establish teaching models/ evaluation that incorporating interactive elements, participatory and supply information to promote the learning based in problems and systematic evaluations of their knowledge to result in a self-directed strategy for the implementation of the CPG

**Implications for guideline developers/users**
Evaluation can also be used to assess how the strategies could be used in a academic setting to implement change

## Poster Presentations B

### (PO B-65) Implementation of an Evidence-Based Care Team Within a Large Healthcare System

First Author: Rebecca M. Guth – Lead Clinical Epidemiologist, BJC HealthCare
Second Author: Mary Bocox
Third Author: Audrey Herring
Fourth Author: Liana Merz

**Background**
The need for evidence-based guidance at the local level is challenged by lack of clinician time and skill to critically appraise and synthesize evidence. While external organizations can conduct evidence reviews, their applicability and timing is not always ideal for local settings.

**Objectives**
Demonstrate the value of an evidence-based care (EBC) team within a healthcare system.

**Methods**
Descriptive analysis of EBC team process and reviews completed in 2015.

**Results**
Since EBC inception in 2006, team membership has grown from one to 4 epidemiologists, plus 2 graduate-level interns. EBC developed a rapid review process which includes honing key question(s) with stakeholders, systematic literature searches, assessment of study methodological quality, and synthesis of evidence weighing risks/benefits. Time of review completion is shortened by using existing high-quality systematic reviews and guidelines when feasible, focusing conclusions on higher quality literature, and using a standardized report template. Review topics initially focused on preventable harm efforts for the healthcare system. In 2015, 96 reports were completed on topics including infection prevention (28%), supply chain (20%), patient safety (18%), medication effectiveness/safety (11%), and other healthcare topics (23%). The majority of reviews (69%) were initiated by the healthcare system; the remaining 31% were requested by individual hospitals within the system. The median turnaround time of reviews in 2015 was 18 calendar days (range 2-112 days).

**Discussion**
An EBC team was successfully implemented within a healthcare system; completion of nearly 100 reports in 2015 indicates reviews are valuable to end users.

**Implications for guideline developers/users**
An EBC team can deliver timely and relevant evidence for local decision-making.

## Poster Presentations B

### (PO B-66) Perceived Barriers to Diabetes and Hypertension Guidelines Usage by Experience of Primary Care Physician

First Author: Sung-Goo Chang
Second Author: Ein-Soon Shin
Third Author: Ji-Eun Jang
Fourth Author: Da-sol Kim
Fifth Author: JI-Yun Yeon
Sixth Author: Yoon-Seong Lee

**Background**
Identifying barriers is one of the most important steps for successful implementation of guidelines among primary care physicians in Korea.

**Objectives**
To explore the barriers influencing the guideline usage in primary care, and whether such barriers were associated with physician's own experience.

**Methods**
Online survey was conducted among 662 Korean primary care physicians based on questionnaire consisted of 4 domains and 16 items was constructed to identify barriers. Level of the perceived barriers was measured from 'none' and 5-likert scale, and presented as three levels: low, moderate and high.

**Results**
435 physicians (65.7%) responded and completed the survey. The most observed barrier was a concern regarding sharp cut by Health Insurance Review & Assessment Service (HIRA) application of recommendations (47.1% reported as high), followed by lack of applicability due to lack of personnel and facilities (43.9%). The shorter years of experience in primary care was related to the higher level of concern on the cut by HIRA (p=0.0157), gab between evidence and insurance criteria (p=0.0011) and lack of time or time pressure (p=0.0176).

**Discussion**
Our survey findings suggest that further efforts are required to address insurance issues and environmental factors such as facilities and timeframe to facilitate guideline usage.

**Implications for guideline developers/users**
Identifying and considering barriers to use guidelines at point of care is important to both policy makers and end-user physicians to enhance quality of care.

## Poster Presentations B

### (PO B-67) Relationship Between Level of Application and Behavioral Changes on Use of a Guideline Among Korean Physicians

First Author: Ein-Soon Shin
Second Author: Da-sol Kim
Third Author: JI-Yun Yeon
Fourth Author: Ji-Eun Jang
Fifth Author: Sung-Goo Chang
Sixth Author: Yoon-Seong Lee

**Background**
End-users of guidelines often resist change and are persistent about their own practice pattern. Lack of motivation as a critical barrier should be addressed for successful implementation of clinical practice guidelines.

**Objectives**
To estimate the level of application of hypertension recommendations, and assess the association between the level of use and perceived behavioral changes among Korean physicians in primary care.

**Methods**
We conducted an online survey to assess the level of use of hypertension recommendations and behavior changes. The portion of physicians who reported use of each recommendation were categorized according to the following portions: 0%, 1%-20%, 21%-40%, 41%-60%, 61%-80%, or 81%-100% of patients. Behavioral changes measured by 5-likert scale.

**Results**
Of the 662 physicians, 435 (65.7%) completed the survey. 51.3% reported as high or very high for the changes on the use of recommendations. The higher level of perceived behavioral changes was associated with the higher level of application of the recommendations regarding initial treatment (p=0.0002), advice on the anti-smoking (p=0.0100), weight control (p=0.0415), physical activity (p=0.0001) and balanced nutrition (p=0.0001).

**Discussion**
This study showed that the change of professional behavior is essential to improve recommendation utilization and implementation of guidelines in primary care setting.

**Implications for guideline developers/users**
Efforts to promote professional behavioral change as a core competency should be addressed and improved for evidence-based practice.

## Poster Presentations B

### (PO B-68) Citation Analysis for Recommendations in Clinical Practice Guidelines of Traditional Chinese Medicine (TCM)

First Author: Deng Wei
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Third Author: Wei Dang
Fourth Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Fifth Author: Xiaoqing Wang
Sixth Author: Wei Deng

**Background**
Clinical practice guidelines of TCM (hereinafter referred to as "guidelines") is widely valued documents with important use for practice standardization. But still, the situation of citation and evidence of recommendations is unclearly.

**Objectives**
To analyze the citation of recommendations in guidelines.

**Methods**
We electronically searched WanFang Data, CNKI and CBM from inception to 31st Dec, 2014. The search terms were guidance and guideline. Two reviewers independently screened literatures and extracted data. Disagreement would be solved through discussion. We used EXCEL 2013 to conduct statistical analysis.

**Results**
A total of 84 guidelines were included, in which 420 recommendations and 878 references were found. There were 53(6.0%) guidelines, 26(3.0%) systematic reviews (SRs), 18(2.1%) meta-analysis, 53(53%) randomized controlled trials (RCTs), 52(5.9%) case-control or case series, 1(0.1%) cohort study and 675(76.9%) other types of study. The number of guidelines, SRs, RCTs and case series/ case reports be cited were significantly higher than those before 2008.

**Discussion**
Only few recommendations of TCM cited high quality evidence, including guidelines, SRs and meta-analysis, which could hinder their quality and credibility.

**Implications for guideline developers/users**
We suggest guideline developers fully consider high-quality evidence when develop guidelines in China.

## Poster Presentations B

### (PO B-69) Clinical Decision Support Increases Diagnostic Yield of Computed Tomography for Suspected Pulmonary Embolism

First Author: Angela Mills – ,
Second Author: Ivan Ip
Third Author: Curtis Langlotz
Fourth Author: Ali Raja
Fifth Author: Hanna Zafar
Sixth Author: Ramin Khorasani

**Background**
Evidence-based clinical decision support (CDS) has been shown to decrease imaging use not adherent to evidence-based guidelines.

**Objectives**
Determine effects of evidence-based CDS on the use and yield of computed tomographic pulmonary angiography for suspected pulmonary embolism (CTPE) in Emergency Department (ED) patients.

**Methods**
This multi-center prospective trial conducted in three urban EDs used a pre/post design. For patients aged 18+ years with suspected PE, CTPE use and yield were compared 19 months pre- and 32 months post-implementation of CDS based on the Wells criteria, provided at time of CTPE order, deployed in April 2012. Primary outcome was the yield (percentage of studies positive for acute PE). Secondary outcome was utilization (number of studies/100 ED visits) of CTPE. Chi-square and statistical process control chart assessed pre- and post-intervention differences.

**Results**
Of 558,795 patients presenting October 2010-December 2014, 7,987 (1.4%) underwent CTPE (mean age 52 +/- 17.5 years, 66% female, 60.1% black); 34.7% of patients presented pre- and 65.3% post-CDS implementation. Overall CTPE diagnostic yield was 9.8% (779/7,987 studies PE positive). Yield increased a relative 30.8% after CDS implementation (8.1% vs. 10.6%; p=0.0003). There was no statistically significant change in CTPE utilization (1.4% pre- vs. 1.4% post-implementation; p=0.25). A statistical process control chart demonstrated immediate, sustained improvement in CTPE yield post-implementation.

**Discussion**
Implementing evidence-based CDS in the ED was associated with an immediate, significant and sustained increase in CTPE yield without a measurable decrease in utilization.

**Implications for guideline developers/users**
These findings support implementation of CDS with embedded, validated high-quality evidence can improve healthcare quality and reduce inappropriate testing.

## Poster Presentations B

### (PO B-70) A Tailored Strategy for Implementing Clinical Guidelines in Danish Physiotherapy Private Clinics

First Author: Emilie W. Thomsen
Second Author: Mick Dige

**Background**
The National Danish Health Association is developing fifty multidisciplinary clinical guidelines between 2012 and 2016; half of these have recommendations on physical activity and physical therapy. The greatest task ahead now points towards ensuring implementation. The challenges are universal and the knowledge of how different implementation strategies works is sparse. This project targets the implementation of four guidelines in a private practice setting.

**Objectives**
The aim is to implement three guidelines on neurological diseases using tailored strategies and furthermore to evaluate the feasibility and effect of the implementation strategies. Physiotherapists in the greater capital region was invited to join and the results are used when planning the nationwide implementation.

**Methods**
130 physiotherapists from 40 clinics attended workshops. Guideline content was presented and quick guides were handed out. Afterwords they joined one of three implementation strategies as they pleased. 1) Education, focusing on the content of the recommendations, 2) Networking group, targeting the local barriers for implementation using a 'Plan Do Study Act'-approach or 3) Having a implementation facilitator visit their clinic.
Questionnaire was filled out prior to attending the workshops and after completing participation. Focus group interviews will be conducted to evaluate the implementation strategies.

**Results**
Evaluations will be completed in the summer of 2016.

**Discussion**
Knowledge will be gained on the effect and feasibility, and physiotherapists' preferences towards different implementations strategies.

**Implications for guideline developers/users**
Development, translations and adaptations of guidelines are of no use if they are not implemented. This project provides important hands-on experiences from planning and conducting guideline implementation in a private clinic setting.

## Poster Presentations B

### (PO B-71) From Reporting Standards Towards International Best Practice for Guideline-Based Performance Measures

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Third Author: Elizabeth Shaw – Senior Technical Adviser, Public Health and Social Care Centre, National Institute for Health and Care Excellence

**Background**
Reporting standards for guideline-based performance measures (gb PM) were published in early 2016 by the G-I-N Performance Measures Working Group (PMWG). These comprise reporting on guideline selection, guideline recommendation extraction, development process, core attributes, specification, intended use, testing/validating, review/re-evaluation and composition of development panel.

**Objectives**
To identify best practice in developing and evaluating gb PM.
To propose international best practice standards for gb PM development.

**Methods**
We undertook a case study applying the reporting standards to gb PM from Germany, Saudi Arabia and the UK. Consensus on best practice for each reporting standard criteria will be explored via online surveys with PMWG members. In a first survey, identified approaches will be assessed by PMWG members with the possibility to propose other aspects/specifications. Following a quantitative and qualitative analysis of answers, a best practice standards proposal will be drafted by an international core team. A second survey will assess this for consensus with PMWG members.

**Results**
The case study revealed, above all, a need to agree on criteria for recommendation extraction, core attributes, specification, testing/validating and re-evaluation of gb PM. Results of the surveys and proposed best practice standards will be reported at conference.

**Discussion**
Building on reporting standards for transparency, international best practice standards for gb PM will describe specific approaches after having compared and assessed alternatives. The consensus-based procedure wil include further review by additional key organizations and a final delphi-process.

**Implications for guideline developers/users**
The proposed standards are aimed to help developers of guideline-based PM reflecting strength and weakness of their approach and to improve it.

## Poster Presentations B

### (PO B-72) Guideline Development and Implementation in a State-Fund Workers' Compensation System: The WA State Experience

First Author: Zachary Gray – Epidemiologist, Office of the Medical Director, Washington State Department of Labor & Industries

**Background**
Washington is one of four states where law requires employers to purchase workers' compensation insurance through a state fund unless they qualify to be self-insured. Approximately two-thirds of Washington's nonfederal workforce is insured through the Department of Labor and Industries (L&I) state fund.

**Objectives**
In 2007, a formal process for the development and implementation of evidence-based medical treatment guidelines for L&I's injured workers was established with the formation of the Industrial Insurance Medical Advisory Committee (IIMAC).

**Methods**
This group, consisting of fourteen physician advisers nominated by specialty societies and institutions, lead specially assigned subcommittees to develop medical treatment guidelines in topics related to the care and treatment of injured workers.

**Results**
The development of these guidelines seeks to remain transparent and accountable, including the incorporation of public and private stakeholder input. Clinical expertise of the experienced physicians is integrated with the best available medical and scientific evidence in order to inform and facilitate sound clinical decision making to meet the goal of helping injured workers heal and return to work. This process also focuses on directing resources toward interventions that work and working to reduce ineffective practices.

**Discussion**
Workers' compensation patients are an understudied population, facing unique and sometimes catastrophic circumstances related to numerous aspects including the mechanism and outcomes of work-related injuries.

**Implications for guideline developers/users**
With the additional aspects of causation and liability brought on by these work-related injuries, L&I guidelines face issues not often encountered in clinical practice guideline development.

## Poster Presentations B

### (PO B-73) In Search of Quality Indicators for Down Syndrome Care: Guidelines are the Beginning

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**Background**
Medical care around Down syndrome (DS) is complex, with many multidisciplinary challenges. In the Netherlands, several initiatives exist, such as DS-specialised multidisciplinary outpatient care teams. Also, a multidisciplinary guideline for DS care has been developed. However, the quality of existing initiatives and the extent to which care professionals adhere to the guideline is unclear. Quality indicators can assess this.

**Objectives**
To identify existing quality indicators for medical DS care.

**Methods**
Scoping review, including systematic search strategies and data extraction, and stakeholder consultation. We searched six databases (PubMed, EMBASE, Web of Science, CINAHL, PsycINFO, Google Scholar) for studies concerning quality indicators for DS care, published until February 1st 2015.

**Results**
No indicators for DS care were identified. Therefore we also searched for indicators concerning care for people with intellectual disabilities, which yielded thirteen quality indicator sets. Stakeholder consultation did not yield additional sets. The sets predominantly focus on support services, rarely on medical care. One set is explicitly based on a guideline, 5 are based on guidelines not publicly accessible or not clearly referred to, for 3 sets guideline basis is described vaguely, and 4 sets do not provide information on this. Patients and care providers were involved in the development of most of the sets.

**Discussion**
Since no quality indicators exist for medical DS care, they will have to be developed.

**Implications for guideline developers/users**
Existing guidelines for DS care should be identified and taken into account when developing quality indicators. Indicators should be patient-centred, while developed in a multidisciplinary way to achieve successful implementation.

## Poster Presentations B

### (PO B-74) Launching a National System of Care for Patients with Orphan Diseases

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**Background**
There is no integrated approach to the problem of orphan diseases (OD) in Ukraine. Diagnosis of these illnesses is often complicated and delayed, the treatment is ineffective because of the lack and unavailability of essential medicines and methods of treatment, the quality of life for most patients remains poor.

**Objectives**
The Law of Ukraine On amendments to the Basic Laws of Ukraine on Health Care on prevention and treatment of rare (orphan) diseases' has been recently issued. It governs the measures of OD prophylaxis.

**Methods**
According to the Law, in order to improve OD patient care, a work on medical and technological documents was launched. It was conducted by multidisciplinary working groups including leading specialists in clinical genetics, health care managers and patients organizations.

**Results**
Today the clinical protocols of treatment of mucopolysaccharidosis, Gaucher disease, phenylketonuria, based on evidence of the effectiveness of medical technologies, pharmacotherapy and organizational principles of its provision, were approved.

**Discussion**
The documents contained modern approaches for diagnostics and treatment of mucopolysaccharidosis, which are adjusted to the health care system of Ukraine.

**Implications for guideline developers/users**
Harmonization of treatment practices of OD in Ukraine with international best practice will bring the treatment of these states in Ukraine to a new level and provide thorough measures aimed at the development of screening and prevention programs, diagnostics and treatment, as well network collaboration among health services, educational institutions, public etc.

## Poster Presentations B

### (PO B-75) Guidelines: One Size Does Not Fit All

First Author: Jodie Dvorkin – Project Manager/Health Consultant, Institute for Clinical Systems Improvement
Second Author: Claire Neely – Chief Medical Officer, Institute for Clinical Systems Improvement

**Background**
The Hmong community in Minnesota is a growing population with a rich culture, trying to be healthy in the face of major lifestyle differences in the United States. In the primary care setting, lack of understanding of Hmong history and culture can impair clinicians' attempts to support patients' healthy lifestyle choices.

**Objectives**
1. Understand the cultural context that influences health behaviors among the Hmong community
2. Tailor a general healthcare guideline to develop best practices for a specific population
3. Implement Hmong-specific best practices into two community clinics

**Methods**
This project was a joint effort between St. Paul-Ramsey County Public Health, Hmong Health Care Professionals' Coalition, and the Institute for Clinical Systems Improvement (ICSI). The team adapted ICSI's Healthy Lifestyles guideline and tailored it to the Hmong community, developing best practices for nutrition, physical activity, and tobacco cessation. These best practices will be implemented in two community clinics through staff trainings and a patient handout.

**Results**
The Hmong Healthy Lifestyles Best Practices guide was completed in early 2016. A pilot project implementing the guide in two community clinics will take place from May through September 2016.

**Discussion**
The development of culture-specific best practices requires expertise in medical content as well as community history, values, and beliefs. Lessons from implementation are forthcoming.

**Implications for guideline developers/users**
It is critical to understand the cultural context that influences patient decisions and behaviors. Developers should seek opportunities to tailor general healthcare guidelines to develop best practices for specific populations.

## Poster Presentations B

### (PO B-76) Use of GRADE Methodology in Low Evidence Settings: Experience with the Development of CPG in Colombia

First Author: Fabio Sierra
Second Author: Juan Fuentes
Third Author: Carlos Pinzon
Fourth Author: Angela VIVIANA. Perez – deputy production of clinical practice guidelines, Health Tecnology Assessment Institute
Fifth Author: Alvaro Idrovo

**Background**
The development of recommendations for clinical practice guidelines do not always have enough evidence and good quality.

**Objectives**
To describe the experience of using low quality evidence to generate recommendations on Clinical Practice Guidelines on Occupational Health for Colombia, and review the literature on the use of this evidence when the methodology Grading of Recommendations Assessment is used, Development and Evaluation ( GRADE).

**Methods**
the reasons that led to a decrease in rating the quality of evidence and grading of recommendations strong despite the low quality of evidence were recorded. Additionally, a systematic and manual search of the literature on use of GRADE in scenarios with little evidence was made

**Results**
The quality of evidence was assessed as low or very low due to the use of observational studies and epidemiological not; this classification led to the generation of mostly weak recommendations; however, some recommendations were strong for the right balance between benefits and values-risk patients. multi-component interventions, lack of randomized clinical trials and lack of a hierarchy of observational studies: In addition to the reasons found in developing these guidelines, the literature several aspects that lead to a low quality assessment of evidence were reported.

**Discussion**
Despite the difficulties encountered with the use of low quality evidence, GRADE criteria for generating and grading of recommendations facilitate the realization of a flexible, systematic and rigorous process.

**Implications for guideline developers/users**
It is necessary generate new approaches to developing clinical practice guidelines in context to low quality evidence, for example occupational health, rare diseases and public health

## Poster Presentations B

### (PO B-77) Methodologies for Setting Health Research Priorities, and Methods for Decision-Making: A Systematic Review

First Author: Juan Fuentes
Second Author: Carlos Pinzon
Third Author: Angela VIVIANA. Perez – deputy production of clinical practice guidelines, Health Technology Assessment Institute

**Background**
Research prioritization is a decision-making process that requires the integration of lot of information, and should be a planned and organized exercise, based on a reproducible and transparent methodology

**Objectives**
To describe and characterize prioritization methodologies in health research, and to identify key elements for its design

**Methods**
A systematic literature review was performed, searching in PubMed, Embase and LILACS databases, generic search engines, and hand searching. Literature reviews and methodological articles presenting methodologies for health research prioritization were selected. The main characteristics of the presented methodologies were extracted and synthesized

**Results**
A total of 734 references were identified, and 12 of them were selected. Methodological approaches with multiple variations were reported or described in the selected documents; however, common characteristics were identified, related to the process points, participation mechanisms, prioritization criteria and analysis of results for decision-making. These methodologies are based on processes that integrate the perspective of different stakeholders with available objective information, taking into account prioritization criteria previously defined.

**Discussion**
Research prioritization requires the use of a methodology defined a priori, that should contains prioritization criteria, participation techniques, and methods for analysis and setting priorities, which must be adjusted to the conditions and needs of the application context.

**Implications for guideline developers/users**
The prioritization of research is a mechanism that favors the selection of research topics that are necessary for the development of clinical practice guidelines in a context of resources liminatados

## Poster Presentations B

### (PO B-78) Testing Treatments Interactive: An Evidence-based Platform to Help Patients Understand Practice Guidelines

First Author: Qi Wang – Master student, Evidence Based Medicine Center of Lanzhou University, Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Chinese GRADE Center
Second Author: Yao Liang
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Fourth Author: Kehu Yang

**Background**
Shared decision-making can improve health outcomes. During the process, the communication with patients on health information is important. Patients and their families' knowledge about and understanding of practice guidelines have an effect on clinical decisions.

**Objectives**
To introduce an evidence-based platform—Testing Treatments Interactive (TTi for short)—to help patients and public understand practice guidelines, so as to make better clinical decisions.

**Methods**
We established a team consisting of Chinese editors of TTi Alliance to launch, maintain and disseminate the platform.

**Results**
So far, Testing Treatments Interactive has launched 13 language versions, of which Chinese vision has been launched in 2012 and introduced separately in two international conferences in 2014 and 2015. We mainly made some progress in following aspects: First, we have published the Chinese version of the book Testing Treatments online and made audiobook in mp3 format for free access. Second, we have translated some learning resources related to evidence-based medicine. Also, we made some the visualized products to represent key concepts on practice guidelines, which will be presented in the 2016 GIN conference. Third, based on this website, we successfully applied for the E-learning project to help medical students read literature.

**Discussion**
TTi can help patients and public understand practice guidelines in an interesting and impressive way in the era of overloaded information. It also provides an evidence-based platform for doctors and patients to communicate the clinical decisions.

**Implications for guideline developers/users**
We need a reliable and attractive platform to help patients increase the understanding of clinical practice guidelines, in order to promote evidence-informed clinical decisions.

## Poster Presentations B

### (PO B-79) Rating Recommendations from Two or More Guidelines

First Author: Brian S. Alper – DynaMed Founder; VP Innovations + EBM Development, EBSCO Health
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Sixth Author: Peter Oettgen – Editor-in-Chief, DynaMed

**Background**
Guideline developers and users have systems for rating recommendations within a guideline, but there is no system for rapid recognition and conveyance when multiple guidelines covering the same concept come to similar or dissimilar recommendations.

**Objectives**
A rating system for recommendations to rapidly convey where there is universal agreement and where there are disagreements across guidelines.

**Methods**
We reflected on experiences in developing, rating and using guidelines and recommendations; included relevant concepts from GRADE, IOM and GIN standards; reviewed iteratively for overall simplification and reached consensus on a rating system for the collection of recommendations for a specific concept.

**Results**
When multiple guidelines are available for a recommendation:
Alpha ratings (Consistent Strong Recommendations) = all guidelines provide Strong recommendations for the intervention (or highest degree of certainty that desirable consequences outweigh undesirable consequences), there is a qualified rationale (systematic review, nonconflicted multidisciplinary expertise, explicit values and preferences), and no dissenting opinion with a qualified rationale.

Beta ratings (Consistent Suggestions) = all guidelines provide recommendations for the intervention, but all guidelines do not reach a Strong recommendation.

Delta ratings (Inconsistent or Insufficient Guidance) = at least one guideline recommends for and at least one guideline recommends against an intervention, or at least one guideline declares insufficient evidence to recommend for or against the intervention.

**Discussion**
This system provides easy recognition whether guidelines agree or disagree. Examples can be seen at www.healthcaregps.org

**Implications for guideline developers/users**
Agreement across guidelines strengthens the recommendations. Disagreement highlights areas where greater analysis or explanation is warranted.

## Poster Presentations B

### (PO B-80) Adaptation of Guidelines: What Methodological Frameworks Have Been Proposed?

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Fifth Author: Wojtek Wiercioch – McMaster University
Seventh Author: Hneine Brax
Eighth Author: Fadi El-Jardali

**Background**
Guideline adaptation can provide an efficient alternative to de novo guideline development.

**Objectives**
To identify methodological frameworks for the adaptation of guidelines published in the past 15 years.

**Methods**
We searched OVID MEDLINE and Embase from January 2000 - June 2015 and identified manuals of guideline organisations via the internet and personal communication. We included any report, in any language, describing a framework for adaptation. We abstracted data about the framework and elements of the process, and described narratively.

**Results**
We found 8 frameworks. Most frameworks built on the ADAPTE method which includes 24 steps from set-up, adaptation and finalization and provides tools. For example, the RAPADAPTE was developed to use guidelines but also synthesised evidence to make recommendations; and the Adapted ADAPTE aimed to improve ADAPTE tools for greater clarity. Two frameworks built on GRADE methodology: GRADE-ADOLOPMENT uses the Evidence to Decision Frameworks and builds on the advantages of adaptation, adoption, and de novo guideline development; and MAGIC builds on 'authoritative international" and current guidelines that used GRADE methods in order to bypass the initial steps of ADAPTE.

**Discussion**
This survey found a variety of frameworks which appear contingent upon the information available to guideline producers from previously published guidelines, such as synthesised evidence, evidence tables, and criteria used when making recommendations.

**Implications for guideline developers/users**
Developers of de novo guidelines should consider publishing and presenting their guidelines in a way to facilitate adaptation by others; organisations adapting guidelines may need to use an adaptation framework based on the recommendations and supporting information available.

## Poster Presentations B

### (PO B-81) First Responder Success Index: Measuring First Aid Success in an Era of New Guidelines in Uganda.

First Author: Mwebaze Kanaahe Brian – Lecturer, Bishop Stuart University Public Health Centre for Evidence Innovation & Policy
Second Author: Ismail Kyagulanyi

**Background**
Effective and timely First Aid given by trained bystanders can make a difference sometimes between life and death in low resource settings with no specialize emergency medical services. Trained First Aiders are expected to strictly act in line with the 2016 IFRC First Aid Guidelines on Fractures, bleeding and wounds care. There remains a gap in understanding the definition of success in handling an emergency by a lay First Responder.

**Objectives**
To describe what is considered a success for a First Responder in low resource settings responding to an emergency.

**Methods**
A crossectional study was conducted involving First Aiders (n=35) from Urban, Peri-Urban or rural roads in Mbarara Municipality, South Western Uganda into 3 focus group discussions, and 10 Individual interviews. Results were compared against a standard:-defined from a merger of 2011&2016 IFRC Guidelines on First Aid.

**Results**
Significant increase in First Aider responses to case severity (Fractures, Bleeding & Wounds) ( 2=0.782) as compared to the 'Standard' ( 2 =55.103). First Aid Success was redefined as not just following 'Standard' guidelines but actions that could offer the best casualty outcomes. 94.3% of respondents believed that portable first aid kits and personal protective equipment would make them better First Aiders.

**Discussion**
A First Responder Success Index especially in low resource setting is about case outlook, casualty, time and 'breaking the law' for best outcomes.

**Implications for guideline developers/users**
Train the First Responders to learn to correctly ascertain when to 'break the law'
Provide, monitor and evaluate personal protective equipment to First Responders
Provide a mechanism for First Responders sharing experiences

## Poster Presentations B

### (PO B-82) Zika Virus infection: Challenges in Developing Recommendations for Pregnant Women in Brazil

First Author: Maria Ellisa Cabanelas. Pazos – Coordinator Evidence Based Clinical Practice, Amil Assistência Médica Internacional
Second Author: Hans Dohmann
Third Author: Paulo Jorge Cardoso
Fourth Author: Paulo Cesar Souza

**Background**
Zika virus was transmitted to 52 countries and territories, mainly in the Americas and Asia. It's a Flavivirus, neurotropic, transmitted by the Aedes Aegypit mosquito. Its association with microcephaly and other brain malformations has been reported in Brazil in 2015 where virus transmission was confirmed. Based on the rapid spread of the virus and its potencial relation to microcephaly, World Health Organization declared on 1 February 2016 an Emergency Situation in International Public Health.

**Objectives**
To reach a consensus for recommendations and tests coverage for pregnant women.

**Methods**
The National Health Agency (ANS) is leading a forum with privative health system stakeholders. Amil, a Brazilian privative health system, is a member. This forum includes other Health Plans, Ministry of Health, Carriers, Medical Societies and representatives of users.

**Results**
Mostly still in discussion

**Discussion**
Although ZikaV was detected in amniotic liquid, placenta, umbilical cord blood and cerebral tissue from aborted fetus, there is no scientific evidence to date that confirms a link between Zika virus and microcephaly. Except to vector control and protection to mosquito bite, majority of recommendations are weak. Infections are often assyntomatic and symptoms are usually mild and selflimited. Specially for prenatal monitoring it is a concern. Laboratory diagnostic have barriers. Serology has high cross-reactivity with dengue, an endemic disease in Brazil. Molecular biology search (RT-PCR) is restricted to short-term onset of the disease.

**Implications for guideline developers/users**
The working group is updated with scientific evidences and probably, at the Conference this knowledge scenario will have stronger recommendations, as result of an international collaborative research effort.

## Poster Presentations B

### (PO B-83) Evidence-Based Review of Current Evidence On Off-Label Drug Use

First Author: Qi Zhou
Second Author: Xiaoqin Wang
Third Author: Yang Yu
Fourth Author: Yaolong Chen – , Evidence-Based Medicine Center of Lanzhou University

**Background**
There is a high rate of off-label drug use, but few guidelines work when it comes to identify whether the off-label drug use are evidence-based. Also, there is no research to review and assess the evidence behind the off-label with evidence-based method.

**Objectives**
To conduct an evidence-based review of the evidence for off-label drug use with 50 PICO questions in rheumatology and oncology as example.

**Methods**
A multidisciplinary team was built. We searched and selected the best evidence according to the "5S" evidence model. The GIN, NGC, PubMed, Epistemonikos, Embase, Cochrane Library, CBM, Wanfang Data and CNKI were searched from inception to 4th, Dec 2015, and we conducted a supplementary search of Dynamed, Uptodate, Google for guidelines and systematic reviews(SRs).

**Results**
Finally, we included 70 guidelines, 14 SRs, 13 RCTs, six case-control studies, 10 case series studies, and two case reports. Of the 50 off-label drug use PICOs, 44 were supported by guideline, 23 were supported by SR, nine were supported by RCT, two were supported by case control studies, seven were supported by case series, and two were supported by case report. On the other hand, nine were only supported by guideline, one was only supported by SR, and three were only supported by RCT. The Recommendations would be generated through consensus.

**Discussion**
46% PICOs were supported by SR, 18% PICOs were supported by RCT. Off-label drug uses were common in rheumatology and oncology, but the evidence was insufficient.

**Implications for guideline developers/users**
Professional associations should make recommendations based on the best available evidence.

## Poster Presentations B

### (PO B-84) Multicriteria Decision Analysis (MCDA) Framework for Guidelines Ranking: A Pilot Study in Brazil

First Author: Ana Carolina de Freitas Lopes – Social Policies Analyst, Ministry of Health of Brazil
First Author: Andrea Brigida de Souza – Social Policies Analyst, Ministry of Health of Brazil
Second Author: Edison Vieira de Melo, Jr. – Ministry of Health of Brazil
Second Author: Jorgiany Souza Emerick Ebeidalla – Ministry of Health of Brazil
Second Author: Tacila Pires Mega – Ministry of Health of Brazil
Second Author: Vania Cristina Canuto Santos – Ministry of Health of Brazil
Second Author: Clarice Alegre Petramale – Ministry of Health of Brazil

**Background**
The National Committee for Health Technology Incorporation (CONITEC/Brazil) is developing a Multicriteria Decision Analysis (MCDA) framework to counsel the Ministry of Health (MoH) for prioritizing guidelines. Since 2011, it is mandatory for national guidelines from public health system in Brazil to be updated up to two years. A structured and comprehensive approach were developed to aid decision-making and makes it transparent for society.

**Objectives**
To present a pilot study using the MCDA framework in development by CONITEC applied in ranking guidelines for update.

**Methods**
The first version of the framework was tested to identify its sensitivity to capture the preferences of all stakeholders in this field. Thirty-five guidelines were targeted for ranking in this pilot study. Value measurement model was used to design categories, criteria and weights.

**Results**
Data used for scoring each criterion were obtained from objective sources: national health systems, scientific database (Pubmed) and public consultation available on CONITEC website. Summing the scores, the top 10 reflected the themes prioritized both from the MoH and society in a balanced way. A subjective assessment from a guidelines subcommittee of the MoH confirmed as priority 9 out of 10 prioritized guidelines through MCDA.

**Discussion**
The framework developed by CONITEC revealed high sensitivity in bringing together society and decision-makers interests, in an inclusive and comprehensive way.

**Implications for guideline developers/users**
MCDA framework provides the order of preference based on structured criteria analysis, scored on numerical values. It makes it useful in ranking guidelines, especially in resource-constrained settings with great demands.

## Poster Presentations B

### (PO B-85) Development of Guidelines For and By Nurses in the Netherlands

First Author: Annemarie C. de Vries, Sr. – Advisor nursing guidelines,
First Author: Alke Nijboer

**Background**
In 2016, the Dutch Nurse Association (V&VN, >70.000 members) started a nursing guideline development program.

**Objectives**
The aim is to achieve professionalization of nursing by standardizing nursing interventions and reducing unwanted variation in these interventions.

**Methods**
The first step was to select topics for the development of guidelines. An expert panel of 48 nurses, who represented the broad spectrum of the profession, was selected. This panel was asked to identify topics. An expert meeting was organized to prioritize these topics. A selection of 20 topics was made, for the period 2017 to 2021. The broad interrogation will be repeated every five years and updated annually. Very urgent topics, will be separately discussed by the expert panel and given priority.

Results
In 2016, V&VN started with the development of four guidelines: loneliness in primary care, the care for severely ill children at home, a revision of the guideline reporting and the description of the healthcare chain in palliative care. These topics were first selected by the government. The results of the previously described procedure will follow.

**Discussion**
The development of guidelines empowers nurses improves the level of knowledge and skills and thereby patientcare.

**Implications for guideline developers/users**
It is recommended to address nurses in their profession, particularly concerning topics that influence their daily practice. Make nurses owner of their profession and their guidelines and strengthen their support in the implementation and use of guidelines.

## Poster Presentations B

### (PO B-86) The Right Tool for the Right Job: A Framework for Patient Direct Knowledge Tools (Based on Gguidelines)

First Author: Dunja Dreesens – senior advisor and PhD candidate, Knowledge Institute of Medical Specialists and Maastricht University
Second Author: Trudy van der Weijden
Third Author: Jeremy Grimshaw

**Background**
In dealing with the informational overload we started developing knowledge tools like CPGs to help providers and patients decide on their care and options therein. However, in developing these tools we might have gone into overdrive with different types (in the Netherlands a scoping review yielded 50+ tool types). Leaving providers mostly confused when to use which tool, and making it hard for developers to decide which tool needs to be developed for which purpose/aim.

**Objectives**
To develop a framework of/for patient direct knowledge tools to help tool developers decide which tool to develop.

**Methods**
Invitational pressure cooker meeting with international experts in knowledge tool-development, implementation and decision-making: T.Agoritsas; M.Armstrong; G.Elwyn; S.Flottorp; A.Gagliardi; S.Hill; L.Kremer; F.Légaré; R.Ryan; N.Santesso; D.Stacey; A.Stiggelbout; S.Treweek; P.Vandvik.

**Results**
Framework:
1/Stating purposes of 8 knowledge tools directed at patients, such as decision aid, patient summary and QPL;
2/Describing the core ingredients of these tools.

**Discussion**
Should the framework be descriptive or prescriptive? No clear line between transferring knowledge just to inform or with the intention to engage/support in decision-making. Different/unclear definitions of knowledge tools complicated discussion. Should we consider knowledge tools based on SRs and/or evidence summaries as well? How to distinguish between core ingredient and presentation forms of tools? Framework is a first version, it needs to be further discussed, probed, tested and tweaked.

**Implications for guideline developers/users**
Clarity on:
- Which tool to develop - next to a guideline - to involve patients in decision-making;
- Core ingredients of knowledge tools aimed at patients;
- Which effect outcomes of the tools are supported by evidence.

## Poster Presentations B

### (PO B-87) Digital Approaches to Analyzing Evidence in Support of Personalized Oncology Guidelines

First Author: Sandra Zelman Lewis – Chief Guidelines Officer, Doctor Evidence
Second Author: Rebecca L. Diekemper – Methodology Lead, Doctor Evidence

**Background**
Researchers know that cancer is not one disease, but many. One promising new therapeutic approach is immuno-oncology, an evolving treatment modality that uses immunotherapies designed to target and harness patients' immune systems to kill tumor cells. Thirty years of research has demonstrated that the immune system recognizes tumors and immuno-surveillance can stop or control them from spreading.

**Objectives**
Tailoring guideline recommendations for specific patients, although a long-time goal, is often neglected by guideline developers fearing increased complexity. David Eddy emphasized incorporation of individualized decision-making and population-focused guidelines into a unified model of evidence-based medicine (EBM) so evidence could support both levels of care. Today's sophisticated technologies further enhance this use.

**Methods**
We will perform a systematic review on immunotherapies for melanoma, employing processes meeting current standards, resulting in digitized evidence from all qualifying clinical studies. Meta-analyses and subgroup analyses will demonstrate support for personalization based on specific patient characteristics for which sufficient data exists.

**Results**
Meta-analyses and subgroup analyses will identify likely trends in benefit/harm ratios for distinct patient characteristics, and various visual formats will increase comprehension. These technologies will showcase how living guidelines can be supported with dynamically updatable systematic evidence reviews.

**Discussion**
Results will be described in the context of how they could support recommendations tailored to specific patient characteristic groups based on benefit/harm ratios.

**Implications for guideline developers/users**
This research will demonstrate the flexibilities and capabilities offered by digital technologies and modern analytic tools for both personalization of recommendations and maintenance of updated bodies of evidence.

## Poster Presentations B

### (PO B-88) Measurement of Clinical Performance with Clinical Guideline Apps

First Author: Philipp Boerm – CEO, Boerm Bruckmeier Verlag

**Background**
Demonstrated at the example of cardiological Guideline Apps (e.g., European Society of Cardiology, German Cardiac Society)

**Objectives**
According to experts individualized clinical treatment guidelines can achieve greater care efficiencies compared to existing population-based guidelines. Personalized medical decision-making process and thus the potential of the last guideline generation can be optimized via increased access to point-of-care tools and sharing of Clinical Performance Measures. At the same time collecting and reporting data on practices' clinical processes and outcomes should be generated frequently enough to show progress over time through the use of methods of comparing data collected across multiple time periods.

**Methods**

**Results**
We developed different types of digital Clinical Performance Measurement tools such as calculators with fixed formulas, checklists, scores, algorithms, clinical process protocols, dashboards and combinations of them. Our tools allow health care professionals to generate structured digital patient data at point-of-care. These digitalized clinical findings and results can be documented and thereby saved into (cloud-based) clinical databases or disease registers with file-sharing options for patient outcomes. The specific design of our software system is conform with ISO standards and will have CE certified quality and safety.

**Discussion**

**Implications for guideline developers/users**
With our tools we propose a next level in the personalized medical praxis at the point of care, quantification, modifiability, verifiability and auditability of clinical processes, better clinical decision making, improved accuracy, increased efficiency and enhanced productivity of medical activities.

## Poster Presentations B

### (PO B-89) Making the Transition to "Living Guidelines": Challenges and Opportunities

First Author: Annette Totten – Assistant Professor, OHSU
Second Author: Sandra Zelman Lewis – President, EBQ Consulting LLC
Third Author: Sheena Patel – Manager Guideline Methodology, American College of Chest Physicians
Fourth Author: Vanessa Shorte – Director, Clinical Practice Guidelines and Quality Improvement, American College of Chest Physicians
Fifth Author: Stephanie Kolakowshy-Hayner – COO, Brain Trauma Foundation

**Background**
Many guideline producers are considering, or engaged in, a transition to ongoing methods of monitoring developments and updating recommendations, often called Living Guidelines. This has advantages but can be challenging to implement and requires changes in review procedures, recommendation development and dissemination.

**Objectives**
- Share the experiences of different organizations involved in developing Living Guidelines.
- Identify factors that have facilitated or hindered the transition.
- Describe the resources needed to implement living guidelines.
- Engage attendees and identify others involved in similar work; develop a community to exchange ideas.

**Description of session and speaker topics**
Short presentations will be followed by a moderated discussion. Panelists and participants will describe their own experiencing in advancing the concept of living guidelines

Respondent: Sandra Zelman Lewis, EBQ Consulting, LLC, will introduce the session and respond to presentations.

Organizer/Moderator: Annette M. Totten, OHSU will describe the objectives and efforts to convert the BTF guidelines and discuss challenges related to systematic review methodology and the application of standards in recommendation development

Stephanie Kolakowsky-Hayner, Brain Trauma Foundation (BTF ) will discuss why BTF is supporting this transition and how this fits with their larger efforts to advance research to promote better patient outcomes for traumatic brain injury.

Sheena Patel, CHEST will describe their experience determining when recommendations need to be updated, including augmenting literature reviews and creating smaller units from larger guidelines.

Vanessa Shorte, CHEST will discuss the impact of ongoing updates on providers and quality improvement.

**Target Audience**
People and organizations involved in developing guidelines and guideline users concerned about updating and timeliness.

## Poster Presentations B

### (PO B-91) Guidance on Subpopulation Considerations in Systematic Reviews: Topic Scoping & Work Plan (Protocol) Development

First Author: Evelyn P. Whitlock – Chief Science Officer, Patient-Centered Outcomes Research Institute
Second Author: Michelle L. Eder – Research Associate, Kaiser Permanente Research Affiliates Evidence-based Practice Center
Third Author: Jamie H. Thompson – Research Associate, Kaiser Permanente Research Affiliates Evidence-based Practice Center

**Background**
Guideline developers need information about whether an intervention is likely to benefit or harm some patients more (or less) than the average in order to make targeted clinical practice recommendations. However, guidance is lacking on how to include patient subpopulation considerations into the systematic reviews upon which guidelines are often based.

**Objectives**
To propose methods for consistent application of subpopulation considerations at the onset of a systematic review (e.g., work plan or protocol development).

**Methods**
Based on our experience working with the USPSTF, we developed guidance on methods to employ during a review's work plan. We piloted these proposed methods on three reviews conducted for the USPSTF.

**Results**
Enhanced methods, including key informant interviews and targeted literature searches, can be used to determine which subpopulations should be incorporated into the research questions and inclusion/exclusion criteria that guide the conduct of the review. A summary table was developed to convey these findings.

**Discussion**
Results from pilot testing confirmed the importance of receiving expert input on subpopulation considerations early in the review process. Although additional work is required to define subpopulations of interest a priori during initial planning, such efforts can reduce time invested in later stages of the review by limiting subpopulation examinations to those of most significance to a topic.

**Implications for guideline developers/users**
The implementation of a consistent approach for incorporating patient subpopulation considerations into the work plan phase of the systematic review can aid guideline developers in making recommendations tailored to specific subpopulations of patients when appropriate.

## Poster Presentations B

### (PO B-92) Evidence Synthesis Practices for Clinical Practice Guideline Development

First Author: Aysegul Gozu – Medical Officer, Agency for Healthcare Research and Quality-AHRQ
Second Author: Demetrios Psihopaidas
Third Author: Stephanie Chang – Director, Evidence Based Practice Center, Agency for Healthcare Research and Quality, AHRQ

**Background**
Clinical practice guideline (CPG) developers are increasingly using independent systematic reviews (SRs) of research evidence as a basis for developing clinical guidance. However, producing "de novo" (original) SRs is resource intensive, and existing SRs may not provide all the evidence needed for developing the CPG.

**Objectives**
Our objective is to identify the advantages, disadvantages, and resource requirements of different options for acquiring SR evidence for CPG development, including: internal de novo SRs, external de novo SRs, and adapting or adopting existing SRs.

**Methods**
Semi-structured qualitative interviews with 9 different clinical practice guideline groups in the US.

**Results**
CPG groups are often staffed by only 1-3 full time persons, relying on volunteers for CPG panels. Resource requirements vary depending upon staff's and CPG panel's prior experience with CPG development, the use of individual versus standing CPG panels, and the productivity of volunteers. Developers have used a variety of approaches to adopting or adapting existing SRs, and some have experience with de novo SRs. Adopting or adapting existing SRs is the preferable approach in terms of cost and time, but is limited by lack of information on specific population-interventions, outcome measure differences, and inconsistent access to source data.

**Discussion**
CPG developers need to structure their guideline development process to integrate independent SRs systematically, whether through development of de novo SRs or by adopting or adapting existing SRs.

**Implications for guideline developers/users**
Access to SR data, inclusion of evidence panels in SRs, and online resources, such as SRDR, may help to overcome some of the challenges faced by guideline developers.