BRIEF ORAL PRESENTATIONS

O2

USING ACTION-TYPES TO DESIGN GUIDELINE IMPLEMENTATION SYSTEMS

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Background: Translation of the knowledge contained in practice guidelines into tools that influence clinician behavior at the point of care remains a challenging problem. Plans to implement each recommendation must be individualized, but some components of these plans are reusable. Actions called for by guidelines can be categorized reliably into 14 action-types: Test, Inquire, Examine, Monitor, Conclude, Document, Perform (Procedure), Refer/Consult, Educate/Counsel, Prescribe, Prevent, Advocate, Prepare, and Dispose (Admit/Discharge/Transfer).
Purpose: We hypothesize that defining action type(s) for each recommendation can suggest useful, reusable components of an implementation plan.
Methods: To identify reusable design considerations, we conducted a focus group comprising 8 clinicians who have experience and expertise in the design of guideline implementation systems. For each action-type, the panel was asked to identify commonly used implementation activities and services that users would perceive to be valuable. Such activities might aid the clinician's or patient's decision making or the successful completion of a planned course of action. The results were categorized and themed and used to populate the action-type model.
Results: The panel described a set of replicable considerations for implementation of guideline recommendations based on specific action-types. For example, implementing recommendations of the «test» action-type might incorporate (among other considerations): presentation of test options/alternatives, test costs, scheduling options, interpretation aids, patient education, requirements for preparation, and a «tickler» follow-up system. Likewise, a recommendation categorized as a «prescribe» action-type might be supported by presenting drug information, safety alerts (drug-allergy, drug-drug interaction), dosage calculation, pharmacy transmission, and corollary orders.
Discussion: Categorization of action-types in guideline recommendation statements can be used to derive reusable design patterns for implementation. Offering beneficial services that support clinician and patient adherence facilitates successful implementation.

O3

IMPLEMENTATION OF A CLINICAL GUIDELINE
Based on a Physician Outreach Visit in Obstetrics

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Background: Implementation of clinical guidelines will ensure quality of healthcare, adequate allocation of resources and safety for users. Effective strategies in order to detect maternal colonization of Group B streptococcus (GBS) is regarded as a high level of recommendation, based on Prenatal Care Guideline, which was issued by the Brazilian Medical Association. Screening is recommended for every pregnant woman between 35 and 37 weeks of gestation, to prevent the most common bacterial infection of vertical transmission in neonates. The prevalence of obstetricians ordering GBS culture before intervention was 32% in a Private Healthcare (Medical Cooperative).
Objective: Compare the effectiveness of Consultant Physician Visitor (CPV) and sending guideline by Standard Mail (SM) on obstetricians requesting and performing the culture for GBS in pregnant women.
Methods: A Clinical Trial was carried out and the subjects were 241 obstetricians, who performed deliveries between April 1st and June 30th, 2008, had been included in the sample and then randomized into the following groups: CPV group (n = 76), SM (n = 76) and Control Group (C) (n = 89). The CPV group received an educational visit, in which it was based on the Guideline developed by the Brazilian Medical Association. The SM group received, by mail, the same printed material. The outcome measured was the rate of performance of GBS culture in pregnant women in two periods: before and three months after intervention (CPV, SM and C). Multivariate analysis was applied, as well as a Poisson regression.
Results: There was no statistical difference in relation to the number of physicians requesting GBS culture between the groups (p = 0.41). After the CPV intervention more pregnant women were tested (p = 0.023). In the multivariate analysis, female gender (p = 0.01) and doctors aged less than 46 years ordered more GBS culture (p = 0,05).
Conclusions: The Consultant Physician Visitor was an effective strategy in order to increase the number of pregnant women who are tested for Group B streptococcus in vagina and anus, ensuring better quality of healthcare. The obstetricians under 46 years of age and females performed more GBS culture in pregnant women.

O4
POSSIBLE BARRIERS TO IMPLEMENTING CLINICAL PRACTICE GUIDELINES IN BRAZILIAN PRIVATE HEALTH SYSTEM

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Background: Private healthcare plans are responsible for the health assistance of about 50m people in Brazil, and this sector is regulated since 2000 by a federal agency, Agência Nacional de Saúde Suplementar – ANS. In 2008 ANS established an agreement with Brazilian Medical Association (AMB) for the development of clinical practice guidelines. As these guidelines are developed, the issue of how effectively implementing them arises.
Purpose: This study intends to identify barriers to the implementation of clinical guidelines in different health systems trying to evaluate which of these would most likely occur in Brazilian private health sector.
Methods: A review of articles on international experiences was done to gather information on the implementation of clinical guidelines in different health systems.
Results: Various barriers to the implementation could be identified. Taking in account the characteristics of Brazilian private health system, we concluded that the barriers that will likely be the most difficult to overcome are the absence of appropriate health information systems, low practitioner wages combined with conflicts of interests, the widely used payment model of fee-for-service, and the influence of the media on creating demands for ineffective technologies.
Discussion: The early identification of problems to come in the implementation of clinical practice guidelines is of the uttermost importance, as all the problems identified need long term actions to be overcome.

O5
BARRIERS TO ADHERE TO THE PREOPERATIVE FASTING GUIDELINE AND HOW TO OVERCOME THEM

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Background: In 1999 the American Society of Anaesthesiologists introduced the evidence based pre-operative fasting guideline, which advocates shorter fasting. At present, however, patients undergoing surgery still seem to be subjected to the nil by midnight policy. Apparently, barriers still exist for the implementation of this guideline.
Purpose: To identify barriers leading to non-compliance to the fasting guideline and to generate recommendations to improve adherence.
Methods: We assessed the awareness of, and adherence to, the guideline among 25 anaesthetists, 44 surgeons, and 124 nurses of five paediatric and general surgery wards of a large university hospital by means of questionnaires. Also, 100 adult patients, 10 children, and 10 parents of infants were interviewed about the fasting procedure followed.
Findings: Surgical patients fasted 3 to 4 times longer than advised by the guideline. Median fasting times for solids were 17 hours (IQR 14-21) and for lipids 9 (IQR 2-12) hours. This resulted in patient discomfort (thirst and hunger) in

50% of the adult patients. In contrast, infants did fast according to the guideline. Of the nurses, only 27% adhered to the guideline, which was significantly lower than among anaesthesiologists or surgeons (57%). Most patients, however, stated to have received fasting instructions from these nurses.
Fear for possible rescheduling of the surgical procedure was the main barrier mentioned for using the guideline. However, this occurred in only 6% of the procedures. Nurses depended on the instructions by the surgeons or anaesthetists, who tended to remain «on the safe side». Guideline adherence was considered facilitated by clinical lessons, posters, and a condensed recommendation in the nursing dossier.
Discussion: The variation in fasting practices on surgical wards leads to prolonged fasting times, which is unnecessary and uncomfortable to patients. Because patients mainly remember the nurses' fasting instructions, nurses should be pivotal in reducing preoperative fasting times.

O6
BUILDING BRIDGES BETWEEN GUIDELINES AND CLINICAL PRACTICE IN THE ALLIED HEALTH PROFESSIONS

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Background: The implementation of practice guidelines by allied health professionals has been severely handicapped in France by the absence of a professional body that can diffuse and explain the guidelines to practitioners. Fewer than 10% of allied health professionals are members of specialty societies. A national council of physiotherapists and podiatrists representing the professions was set up in 2006. It encourages continuing professional development (CPD) and continuous quality improvement.
Purpose: To train physiotherapists and podiatrists who will test the implementation of CPD initiatives at a national level.
Methods: 110 physiotherapists pilot tested a clinical audit method in 2005. The topics were functional assessment of stroke victims and the work-up of patients suffering from neck pain. In 2006, the newly created national council selected and trained 44 professionals (physiotherapists and podiatrists) in 5 CPD methods (peer review groups, shared care networks, clinical audit, morbidity-mortality reviews, and clinical pathways) during the course of 3 seminars. The trainees have to construct CPD programmes for implementation across France.
Results: During the pilot test of clinical audits, 46 physiotherapists analysed 373 patient records and were able to build practice improvement plans focussing on their weak points. At the time of writing, over 10 CPD programmes have been drafted by the 44 trainees for testing in 22 regions in 2009-2010. The physiotherapists have tended to choose programmes based on peer review groups and shared care networks, and the podiatrists have preferred programmes based on clinical audits.
Discussion: Physiotherapists have developed a larger body of practice guidelines (> 400) than podiatrists (about 20). Their choice of CPD method seems to reflect a greater distrust of standardisation of manual practice than expressed by podiatrists. The way allied health professionals choose to implement Evidence Based Practice may be influenced by their experience, availability, and the maturity of evaluation in their field.

O7
IDENTIFICATION OF BARRIERS AND IMPLEMENTATION OF STRATEGIES TO IMPROVE TIMING AND CREATION OF APPROPRIATE ACCESS FOR NEW HAEMODIALYSIS PATIENTS

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Background: Patients who commence haemodialysis with a functioning arteriovenous fistula (AVF) have less risk of infection, morbidity and mortality. Despite guidelines for timing and access type, AVF use at first dialysis varies greatly in Australian and New Zealand renal units.
Purpose: To identify the barriers to timely AVF creation and to develop and implement strategies to increase the use of AVF at first haemodialysis.
Methods: One New Zealand and 8 Australian renal units were chosen to participate in the evidence implementation project. Perceived and actual barriers to access creation were identified for each unit by using process maps, conducting group meetings and collecting data. Consensus strategies were developed with the units and are currently being implemented to improve the identification, surgical referral and AVF creation rates for CKD patients. Various strategies were used to achieve this.
Results: Most renal units perceived that five major barriers existed: absence of a central database for monitoring patients' records; no formal policies to guide referral of patients for pre-dialysis education, surgical referral or ac-

cess creation; late referrals from the general practitioner (GP); long waiting times for surgical review and access creation; and patient denial about severity of disease. Baseline data indicates the actual barriers to be: the first two points listed above and late referral from nephrologist to surgeon. Waiting times for surgical review and access creation were less than perceived. Patient denial has been difficult to assess. Results from the implementation phase indicate improved rates of AVF use at first dialysis.
Discussion: The problem of delayed AVF formation is not due to late referrals from the GP or long surgical waiting times as thought but is caused by the lack of an effective dialysis preparation pathway within the renal units. Formal guidelines for units have been developed and are currently being implemented.

O8
TRANSNATIONAL COLLABORATION IN DEVELOPING AND UPDATING GUIDELINES FOR PRIMARY CARE
Experiences from Belgium (Domus Medica, Flanders and SSMG, French Speaking Belgium) and the Netherlands (NHG)

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Background: For more than fifteen years both in Belgium and the Netherlands, guidelines were developed for general practice/primary care (GP/PC). Systematically developed clinical practice guidelines (CPG) assist general practitioners in providing the best possible healthcare in specific clinical circumstances.
Purpose: To explore and develop transnational collaboration in the development and updating of clinical guidelines for GP/PC and to profit from mutual expertise and skills.
Methods: Different methods were used: regular contacts on national and international level, development of common documents, guidelines and initiatives of training, sharing their network of other parties, authorities.
Results: Since about 5 years, all guidelines developed have been assessed and pre-tested before further validation not only among the GPs of the developer region, but also at least in one other region or country. This also leads to distribution and implementation of the assessed guidelines in other regions. For the Belgian guidelines a consensus document on the procedure of guideline development was developed between DM, SSMG and the Centre of Evidence Based Medicine (CEBAM), who validates all finalized guidelines. For two topics we started to develop a transnational guideline: chronic heart failure (between DM and SSMG) and contraception (between DM and NHG). Since education and skills development of guidelines developers is important, initiatives were regularly taken to have common workshops, in service training. Recently new initiatives were developed for a Masterclass on using GRADE (Rotterdam, May 2009) and a guideline conference day (Ghent, November 2009). All partners increased their expertise in developing guidelines, also through contacts with the G-I-N-network.
Discussion: Transnational collaboration seems a fruitful procedure to enhance expertise/competence in and promote quality.

O9
THE LAUNCH OF NHS EVIDENCE

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Background: The proposal to create NHS Evidence for the UK was first announced on 30 June 2008 as part of the **High Quality Care for All** report which stated that: «All NHS Staff will have access to a new NHS Evidence service where they will be able to get, through a single web based portal, authoritative clinical and non-clinical evidence and best practices.»
Purpose: The principle aim of NHS Evidence is to provide easy access to a comprehensive evidence base for everyone in health and social care that make decisions about treatments or the use of resources – including clinicians, public health professionals, commissioners and service managers – thus improving health and patient care.
Methods: NHS Evidence will build on NICE's international reputation for developing high quality evidence based guidance to meet the stated aims.
Results:

- NHS Evidence (www.evidence.nhs.uk) was launched on 30 April 2009, with subsequent releases 16 June and 19 October
- It provides access to a range of information types, including primary research literature, practical implementation tools, guidelines and policy documents via a web based portal
- Includes a fast comprehensive search function and an opportunity to rate search results
- Provides a formal accreditation scheme for guidance using criteria based on the AGREE instrument
- Commissions evidence based information from external sources, in line with user needs and priorities
- Identifies evidence reflecting best practice in particular topic areas to inform a range of user groups
- Engages with users and stakeholders to provide feedback to develop the service.

Discussion: New features will continue to be added including personalisation to help you get to the most relevant information for you, accreditation of reliable sources of information, and access to local examples of best practice and commissioning guides.

O10
COMPARISON OF RECOMMENDATIONS
From Clinical Practice Guidelines for Stroke Management

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Background: Primary Care (PC) is an important part of the health system where many health issues are solved. However, few evidence based Clinical Practice Guidelines (CPG) exist focused specifically on this care level. There is an increasing number of stroke protocols with recommendations adopted directly from CPG of specialised care to PC. These protocols do not consider the importance of contextualisation.
Purpose: To compare recommendations from our CPG for stroke management in PC with those from others CPG.
Methods: Recommendations from 16 CPG for stroke were reviewed. These recommendations have been compared with those from the CPG for stroke management in PC. Diagnosis, acute management and recognition and monitoring of complications were compared. For each CPG, recommendations were assessed by two independent reviewers, under the following criteria: content, resources and knowledge needed and strength of recommendations.
Results: Recommendations of our PC-CPG obtained a lower strength compared to other CPG's. Concerning diagnosis, our CPG had a clinical approach compared to imaging tests proposed in the other CPG. With regard to acute management, we agreed on stroke units and additional oxygen administration, although the recommendation on antiaggregation differs. Management of blood pressure and glucaemia are similar, as much in content as in the strength of recommendations. Finally, our CPG focused on the recognition and monitoring of the complications whereas the other CPG did it on non-applicable treatments in PC.
Discussion: Our CPG included the process of contextualisation of available evidence, so that it is useful for implementation in PC. The principal reason of lower strength of our recommendations is due to the process of adaptation for PC and to the lack of studies in this context. Direct translation from specialised CPG to PC it is not suitable in terms of applicability.

O11
COMPARING THE METHODS USED BY HAS AND NICE TO DEVELOP CLINICAL PRACTICE GUIDELINES

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Background: NICE is a British independent organisation providing national guidance on clinical practice, health technologies, and public health. HAS is a French independent public body with the same assignment. It also accredits healthcare organisations and certifies physician participation in continuous quality improvement.
Purpose: To compare the methods used by NICE and HAS to develop clinical practice guidelines.
Methods: Information was retrieved from the NICE and HAS websites.
Results: NICE commissions 1 of 7 National Collaborative Centres to develop a guideline. The choice of centre depends on the topic set by the Department of Health. HAS' own staff develops guidelines on topics requested by various stakeholders (Ministry of Health, national health insurance …). The scope of the guideline is open to public consultation in the NICE method (stakeholders have to register). It is defined by healthcare professionals during a half-day meeting in the HAS method. The scope is approved by an independent body (Guideline Review Panel (GRP) and «*Comité de validation des recommandations*» (CVR), respectively). Healthcare professionals volunteer to take part in the Guideline Development Group in the UK. They are chosen from a list proposed by the specialty societies concerned by the topic in France. The group meets either every month during 12 to 18 months (NICE) or 3 to 4 times (HAS). The draft guideline is submitted to public consultation in the UK and to designated peer reviewers in France. Once agreement has been reached on the final guideline (GRP or CVR), it is submitted for approval (NICE or «*Collège de la HAS*»). Guideline development by NICE takes 24 to 30 months and, by HAS, 12 to 16 months.
Discussion: The two methods differ with regard to process and time taken. Whether the differences affect the final guideline and its impact needs to be appraised.

O12
HEALTHCARE PROFESSIONALS' EXPERIENCES OF THE AUTOMATIC DECISION SUPPORT
A Study Method for Developing the EBMeDS Forward

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Background: The Evidence Based Medicine electronic Decision Support, EBMeDS, is an automatic and context-sensitive decision support service (www.ebmeds.org), integrated in the Mediatri patient record. We have recruited one Finnish health centre to a trial where all patients of the health centre are randomized into an intervention or a control group. When the patient of the intervention group visits in the health centre the professionals are shown patient specific tailored guidance at the point of care.
Purpose: We aim to find out what factors help or hinder the implementation and use of the EBMeDS service. At

first we focus on internal and external factors in an organization which might be associated with the use of EBMeDS. Next, we explore experiences of the professionals to analyze how these affect patient care and clinical practices. Finally we are assessing the professionals' intention to comply with the EBMeDS guidance.
Methods: Baseline survey was carried out in March 2009. It consisted of both a questionnaire for healthcare professionals and interviews of chief physicians and nurses and information technology advisers. A continuous feedback is gathered electronically during the trial and used to define themes for group interviews at the end of the study. Furthermore, the questionnaire for professionals will be carried out after the trial.
Results: From the interviews, at baseline the organizational readiness for the EBMeDS service was good. The interviewees saw only positive consequences of the implementation. The professionals' attitudes towards decision support guidance were positive. Only the busy practices and problems with information technologies were considered as potential barriers for the use.
Discussion: The professionals' experiences and feedback are essential in the continuing development of the EBMeDS service.

O13
GETTING A GRIP ON ARTHRITIS©
A National Community-Based Educational Intervention to Improve Primary Healthcare Management of Arthritis

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Background: A taskforce of primary healthcare (PHC) providers, adults with arthritis, health services researchers and government representatives designed this evidence based workshop (WS).
Purpose: To implement and evaluate a pan-Canadian community-based educational program to improve the diagnosis and management of rheumatoid arthritis (RA) and osteoarthritis (OA) in PHC.
Methods: 30 WSs were conducted to address: pharmacological and non-pharmacological management of OA and RA and were delivered by local arthritis specialists and community partners. Surveys mailed to providers and patients at baseline and 6 months post-WS determined program impact. Primary outcome analysis compared provider recommendations to patients' arthritis best practices at 0 and 6 months. Provider outcomes included: use of arthritis best practices in standardized case scenarios; confidence in arthritis assessment and management; barriers to arthritis care delivery; and impact of the program.
Results: Rural and urban PHC facilities (n = 219) participated; 900 PHC providers attended 1 of 30 WS. Participants: physicians (20%), nurses (37%), rehabilitation therapists (29%) and other providers (14%). Providers (765/789) and patients (970/3419) completed baseline surveys and were resurveyed at 6 months (384 providers; 567 patients). Patients: female (73%); average age 66.5 ± 13.4 years. Most frequent diagnosis was OA (65%). At follow-up, patients reported more recommendations for arthritis best practices from their providers including information on arthritis community resources, treatment choices, arthritis self-management strategies and healthy weight (in OA) [Chi-Square; $p < 0.05$]. Provider confidence in the musculoskeletal exam and initiating disease modifying antirheumatic drugs significantly increased at follow-up (Paired t-test; $p < 0.01$). Providers indicated the greatest impact in arthritis collaborative care (75%), patient self-management (74%), early detection (65%), access to specialty care (59%) and prevention (53%).
Discussion: This intervention increased PHC providers' ability to deliver collaborative arthritis care and patient self-management. Strong partnerships between the patient, PHC teams, local specialists and the community have potential to improve patient care and support.

O14
HYPERTENSIVE DISORDERS IN PREGNANCY
Partnering Health Services Research with Guidelines to Impact Maternal and Perinatal Outcomes

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Background: The hypertensive disorders of pregnancy (HDP), in particular pre-eclampsia, are the second leading cause of maternal mortality in the world, and the primary cause of maternal mortality in Canada. HDP affects 5-10% of pregnancies and the incidence is increasing due to increased maternal age, increased BMI and increased multiple pregnancies.
Purpose: The purpose of this project is to reduce the personal, family, and societal burden of maternal and perinatal morbidity and mortality associated with preeclampsia by implementing a clinically tested strategy (the pre-eclampsia integrated estimate of risk (PIERS) outcome prediction model) to identify those women who are at greatest risk of developing life-threatening complications of preeclampsia.
Methods: Model of active guideline implementation that includes knowledge translation tools to guide standardized clinical assessment and surveillance of women admitted to hospital with HDP and specific management protocols, based on the PIERS outcome prediction model. Pre and post population surveillance of specific maternal and newborn outcome indicators were used to evaluate population impact.
Results: 17,739 women were diagnosed with HDP in the province from 2000/2001 to 2007/2008. Outcomes were

compared pre guideline implementation (2000/2001 to 2005/2006; n = 13,150) and post-guideline implementation (2006/2007 to 2007/2008; n = 4,589). The combined adverse maternal outcomes decreased from 277/13,150 (2.1%) to 59/4,589 (1.3%); RR 0.67 [95% CI 0.53, 0.85]. The combined adverse perinatal outcomes decreased from 233/13,672 (1.7%) to 56/4,749 (1.2%) RR 0.75 [95% CI 0.59, 0.95].The median maternal length of stay decreased from 89 to 83 hours, translating into an estimated cost saving of $250,000-$500,00 per annum.
Discussion: The provincial success of decreasing both maternal and newborn morbidities associated with HDP has directed us to strategize both national implementation of the guidelines and international validation of a «mini-PIERS» model for developing countries. This validation is currently being conducted in Africa, Pakistan, Brazil, Fiji and China.

O15
THE EFFECT OF GUIDELINES ON CLINICAL DECISION MAKING IN NEPHROLOGY PRACTICE
A Qualitative Study

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Background: A consistent gap exists between evidence based guideline recommendations and clinical practice across all medical disciplines, including nephrology.
Purpose: This study aimed to explore nephrologists' perspectives on guidelines, and to elicit their perspectives on the effects of guidelines on clinical decisions.
Methods: Semi-structured, face to face interviews were undertaken with nineteen nephrologists from a variety of clinical settings across Australia. Participants were asked about their views on clinical practice guidelines in nephrology – both local (Caring for Australasian with Renal Impairment, (CARI)) and international – and their opinions on other factors which shape their decision making. Interviews were recorded, transcribed and analysed qualitatively.
Results: Four major themes were identified. Overall the nephrologists interviewed trusted the CARI guideline process and output. Second, guidelines served a variety of purposes, they provided a good summary of evidence, were a foundation to practice, an educational resource, could justify funding requests to policy makers, and promote patient adherence. Third, guidelines were only one input into decision making. Others inputs included individual patient quality of life and circumstances, opinion leaders, peers, nephrologists own experiences, the regulation and subsidy framework for drugs and devices, the policies and work practices of the local unit, and other sources of evidence. Fourth, guideline uptake varied. Factors which favoured use of guidelines included; a strong evidence-base, being current, including specific targets and an explicit treatment algorithm, being sent frequent reminders, local peer support for implementation and the necessary personnel and other resources for effective implementation.
Discussion: Evidence based guidelines strongly impact on clinical decision making of Australian nephrologists, but are only one input. Improvements in the evidence which underpins guidelines and improvements in the content and formatting of guidelines are likely to make them more influential on decision making. Trust in the guideline groups' process is an integral part of the guideline implementation process.

O16
INFANT BRONCHIOLITIS FOLLOW-UP: COMMON MULTIDISCIPLINARY PROTOCOLAND TOOLKIT FOR HEALTH PROFESSIONALS AND PATIENTS:
Acceptability and Feasability in French Primary Care Trusts

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Background: Bronchiolitis is in progress in France implying a real problem of health management.
Purpose: To harmonise and reduce the variability of practices using a toolkit. To improve patients-family information by requiring a collaborative and protocol practice in French PCT.
Methods: A multidisciplinary working group has been assembled, composed of approximately 20 healthcare professionals in PCT. The toolkit is dedicated to the follow-up of bronchiolitis and targets both health professionals and patients. The working group identified 12 key messages from guidelines published by HAS, AFSSAPS, and the American Academy of Pediatrics, serve as a basis for reminders. PCT evaluated a computerized tracking sheet for professionals and patients inspired from Aquitaine physiotherapists network. GPs and physiotherapists, involved in the follow-up of bronchiolitis, checked the validity of criteria specific to their practice. Those criteria have been gathered in three categories: clinical and anamnesis (14 criteria), therapeutic purposes (2) and therapeutic strategy (7). Colored alerts have been automatically generated for improving risk factors for severe bronchiolitis. Two family information documents have been given during a specific patient information. Six PCT tested the validity and the usability of this toolkit during the follow-up.
Results and discussion: The toolkit has been assessed in practice despite the low prevalence of bronchiolitis dur-

ing the last winter. Only GPs and physiotherapists completed 31 consultations concerning 15 infants. We observed a threshold in January (23 cases), no fever (22), no auscultation (12), SaO_2 completed (17). Concerning the 14 lower airway congestion cases, 12 cases required physiotherapists and family education. About prescriptions outside guidelines, antibiotics are used for 4 infants, corticoids for 2 and bronchodilators for 2. Reminders are validated and the prototype has a good acceptability. Only 2 criteria have been changed: bronchiolitis definition and intake fluids. It would be necessary to integrate this toolkit into healthcare management systems.

O17

UTILIZATION OF SAGES GUIDELINES BY ITS MEMBERSHIP

Initial Analysis

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Background: The development and implementation of clinical practice guidelines offers many challenges. The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) has been at the forefront of guidelines development for laparoscopic surgery since 1982 providing its membership with guidelines on the clinical application of procedures, new technologies, and credentialing.
Purpose: To assess patterns of utilization of SAGES guidelines by its membership.
Methods: An electronic survey of the SAGES membership (n = 5207) was conducted via e-mail solicitation in August/2007. Members were asked if they utilized the guidelines, how often, for what purposes and when, and to rank the frequency of utilization and usefulness of each of its 26 guidelines. They were also asked to suggest topics for new guideline development and provide comments.
Results: Out of 239 SAGES members who completed the survey 121 (50%) utilized the guidelines. Most members (95%) accessed the guidelines on a monthly or less frequent basis and after hours (58%), or during work hours (52%), or while on call (9%). Reasons for guideline utilization included developing practice protocols (56%) and patient treatment paradigms (51%), creating education and training guidelines for staff privileges (35%), or credentialing new medical staff members (25%). The most often utilized and useful guidelines included clinical application guidelines on laparoscopic bariatric, antireflux, biliary, and colorectal surgery, as well as laparoscopic appendectomy and diagnostic laparoscopy. Some respondents indicated lack of knowledge about guideline existence and new guideline requests were made.
Discussion: The results of this survey provided valuable information about the patterns of utilization of the SAGES guidelines by its membership. The rather infrequent utilization of these guidelines highlights the need for interventions that aim at increasing the use and adoption of these guidelines. Such efforts are currently underway, and will be the subject of a follow-up study.

O18

HOW VALID ARE EVIDENCE BASED GUIDELINES? Comparative Analysis of Guideline Recommendations with Current Systematic Reviews Using the Example of Diabetes Mellitus Type 2

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Background: Clinical practice guidelines (CPGs) should assist in supporting medical decisions and improving healthcare. A prerequisite is that CPGs contain reliable information for such decisions. Consequently, alongside the internationally established appraisal of the methodology of CPG development, it is clearly necessary to develop a method to check CPG contents. A central aspect of content appraisal is assessing the validity of CPG recommendations.
Purpose: To collect information to check whether CPG recommendations were valid and to identify possible difficulties.
Methods: Evidence based CPGs on diabetes treatment were identified using a systematic search in guideline databases (G-I-N, leitlinien.de, NGC). The criteria for «evidence based» were: systematic search, indication of level of evidence (LoE)/grade of recommendation (GoR), link between recommendation and literature. Two current systematic reviews (SRs) on the pharmacotherapy of diabetes mellitus type 2 were chosen. They covered comprehensive searches, identified unpublished data, and included comments from stakeholders. Relevant recommendations, LoE/GoR, and cited literature were extracted from CPGs; results from the SRs were assigned to CPG recommendations and publications included in/excluded from the appraisal (with exclusion reason) were extracted. A comparative analysis was subsequently performed using predefined criteria.
Results: A total of 6 CPGs were included in the analysis. Although all were described as «evidence based», only 3 fulfilled the predefined criteria. In most cases recommendations could not be clearly identified. Methods used to formulate the recommendations were often not presented transparently. Furthermore, the following problems were identified: CPGs did not use unpublished data, so there probably was a relevant publication bias. Marketing authorisation aspects were not handled systematically.
Conclusion: Checking the validity of CPG recommenda-

tions is a long overdue step in CPG appraisal. Using high-quality secondary literature to do this is one possible approach. The problems identified not only have to be considered when appraising validity, but also when developing CPGs.

O19

THE QUALITY OF CLINICAL PRACTICE GUIDELINES IN THE LAST TWO DECADES

An Overview of Reviews

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Background: Despite the dissemination and wide acceptance of the AGREE Instrument, published in 2003, concerns about suboptimal quality of clinical practice guidelines (CPGs) remain. The aim of this study was to review the quality of CPGs across a wide range of healthcare topics published since 1980.
Methods: We conducted a literature search in MEDLINE to identify publications assessing the quality of CPGs with the AGREE instrument. For the included guidelines in each original study we gathered data about the year of publication, institution, country, healthcare topic, AGREE score per domain, and overall assessment (recommended, recommended with provisos and not recommended).
Results: In total 42 reviews reporting on 626 guidelines were included, with a median of 25 CPGs assessed in each review. Most guidelines were published in the last 10 years and mainly in Europe (42%) and North America (41%).The mean scores were acceptable for domain 'Scope and purpose' (64%; SD = 28.3) and 'Clarity and presentation' (60%; SD = 24.7), moderate for domain 'Rigor of development (43%; SD = 26.0), and low for the other domains (Stakeholder involvement 35%; SD = 22.5, Editorial independence 30%; SD = 27.3 and Applicability 22%; SD = 21.4). From those guidelines that also included an overall assessment, 62% (168/270) were recommended or recommended with provisos. There was a significant improvement over time for all domains except 'Editorial independence'. The improvement started before publication of the AGREE Instrument.
Conclusions: Our review shows that while the quality of CPGs over the last two decades was moderate to low there has been a significant increase in the quality over time. However, there remains room for improvement for most of the domains. Adherence to good guideline development practice as reflected in the AGREE criteria is needed to improve guideline quality, and ultimately serve patients.

O20

UPDATING CLINICAL PRACTICE GUIDELINE

Methodological Handbook

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Background: Recommendations included in clinical practice guidelines (CPGs) need to review their validity in the light of the constant appearance of new scientific evidence and changes in clinical practice. Nevertheless, the methodology to update CPGs is not well standardized and there is little research published so far.
Purpose: To develop a Methodological Handbook for Updating (MHU) CPGs in the context of an emergent National Guideline Programme in Spain.
Methods: A scientific literature search was performed (1966-2008) and methodological material and experiences in updating guidelines were collected from G-I-N member institutions. By consensus, an expert group decided the structure and the focus of the MHU, and 12 additional experts developed the chapters related to different stages and aspects of a rigorous updating process.
Results: This handbook for updating CPGs identifies two main phases in the updating process: monitoring (to identify new upcoming evidence which may suggest the need to update the CPG) and the actual updating (when new evidence has been identified during the monitoring, or when the maximum time period recommended for updating, 3 to 5 years, has been reached). The MHU provides an explicit and structured approach to systematically undertake the following stages of the updating process: monitoring, assessing the need to update, types of update, how to search the literature when updating, critical appraisal and synthesis of the quality of the evidence,

formulation of recommendations, publication and finally a framework to assess the process.
Discussion: Updating a CPG requires to monitor the upcoming evidence which may modify its validity, regardless the CPG should be updated after 3 to 5 years. Given the scarce information available about this topic this handbook will be of help to those institutions or development groups in charge of updating and developing CPGs.

O21
WHEN TO UPDATE GUIDELINES
A Pragmatic Approach

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Background: The National Institute for Health and Clinical Excellence (NICE) was commissioned to develop the first comprehensive guidance on obesity prevention, identification and management. The guideline was published in December 2006. As part of NICE process, 3 years after publication of a clinical guideline, developers must review whether a guideline needs updating and advise NICE on the extent of the possible update. There is currently lack of consensus on the most effective method of deciding when a guideline needs updating.
Purpose: To describe a pragmatic approach taken in deciding whether the clinical section of the obesity guidance required an update and discuss the learning points.
Methods: To conduct an evidence based review of clinical guidelines that covered the management/treatment of obesity. To present the review to the former guideline development group (GDG) members, and check whether any changes in practice had occurred or additional relevant evidence had been published.
Results: We systematically searched and reviewed clinical guidelines published since the guidance publication. From the twenty-five guidelines retrieved, eleven were ordered. A further four were excluded as they were either outside of the clinical remit of the guideline, or did not clarify the methodology applied for the guideline. Overall, the recommendations seemed to be consistent with the NICE guideline. There were no recommendations that would contradict with any of those contained in the NICE guideline. However, there was a need to judge the recommendations from other guidelines in the context of the UK health system and current UK practice and judge their applicability.
Discussion: Further guidance is required to assist developers in preparing evidence based reports (e.g. whether the AGREE instrument is to be used when reviewing clinical guidelines) to decide whether a NICE guideline needs updating or not. We will discuss in detail the strengths and limitations of this approach.

O22
AN INTERNATIONAL SURVEY ABOUT THE UPDATING PROCESS OF CLINICAL PRACTICE GUIDELINES

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Background: Scientific evidence is a dynamic body as it is constantly and rapidly changing. Clinical practice guidelines (CPGs) as other forms of research synthesis get outdated similarly quickly. Unlike guideline development the updating of CPGs is not well standardized and there is little research published so far.
Purpose: The objective of the study is to survey the main institutions developing guidelines worldwide about the process they use to update their guidelines.
Methods: We surveyed the most important institutions included in the National Guideline Clearinghouse, G-I-N member organisations and those proposed by a group of experts. We contacted all institutions by e-mail and used an on-line questionnaire to collect the data. Additionally we asked the 22 G-I-N organisations to inform us about methodological handbooks or materials they use or which they were aware of.
Results: The online questionnaire included four domains: institution characteristics, the updating process, users, and challenges. In total we surveyed more than a 120 institutions from 40 countries around the world. Data collection is almost complete. Regarding the request for methodological handbooks or materials about updating guidelines 50% of the G-I-N organisations replied. Only two of them reported that they had documents about the updating process. More data will be available at the conference.
Dicussion: Methodological information on the CPG updating process is scarce. Our study will provide an important overall picture of this important topic from the main institutions developing guidelines around the world. There is considerable room for standardization and improvement. Our results will provide pivotal information to define future strategies for this important stage to keep CPGs alive.

O23

A COMPARATIVE STUDY OF PATIENT INVOLVEMENT IN CANCER GUIDELINE DEVELOPMENT GROUPS

Project De-Colle

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The translation of research evidence into clinical practice guidelines (CPGs) by guideline development groups (GDGs) is determined by the evidence itself as well as by a variety of context variables, such as culture, organization of care and societal values. It has been shown that discrepancies between GDGs' recommendations and patient preferences [CABANA 1999, Schers 2001] are barriers to practice conformity. Patient and public involvement has been identified as a factor of quality for guideline development of CPGs (AGREE 2003). However there is wide variation in how patients' values and preferences are taken into account in the guideline development process. [NILSEN 2006].

Objective: understanding the mechanisms of collective decision making and particularly the interaction between patients and experts in the guideline development process.

Methods: Qualitative study involving comparative observation of four French cancer guideline development groups (GDG) (breast cancer, lung cancer, 2 supportive care CPGs) and interviews with participating patients and experts. All but one GDG involved patient representatives.

Results: Observation so far from three GDGs shows the feasibility of involving patients in the development of cancer CPGs in France. The decisions made by the GDGs (with or without patients) constitutes a dynamic process influenced by biomedical rationalities and complex rationalities as well as varieties of reasoning linked to the world outside of the GDG. Barriers and facilitators to patient involvement can be divided into four groups: disease specific, guideline development methodology, individuals and interactions among the panel members. The present study has been consecutively funded by the French National Health Authority (HAS) and the French National Cancer Institute (INCa).

The results of our study allows to better understand some of the mechanisms that intervene in patient involvement in cancer guideline development. Our presentation aims at depicting the results of this study and discussing its meaning for patient involvement in cancer guidelines.

O24

A NEW METHOD FOR PATIENT PARTICIPATION IN THE NETHERLANDS

A WIKI-BASED PILOT STUDY

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Background: Although one of the items of the AGREE instrument stipulates that a high quality guideline should take patients' preferences into account, it still seems to be difficult to realize. Since there is not an ideal way of patient participation in guideline development we started a wiki-based pilot study. A wiki is a website-based collaboration tool where everyone can read, edit, and organize the contents.

Purpose: To investigate whether this innovative method is useful for patient participation in a national multidisciplinary subfertility guideline.

Methods: A broad collaboration of stakeholders was set up to develop a multidisciplinary guideline for subfertility. Apart from representatives of the Dutch patient organization we added an innovative method of direct patient participation, using WIKI-technology. Based on in-depth interviews we collected patients' preferences for subfertility care. Preferences were translated into a start set of 90 recommendations. From May till December 2008 content changes could be made on WIKIfreya (www.freya.nl/web_wiki). After moderating and categorizing, preferences were placed on WIKIfreya to prioritize in a big five combined with an evaluation questionnaire. This big five was used as direct input to our multidisciplinary guideline.

Results: A total of 265 unique recommendations were made and moderated in 289 recommendations. Overall 36.473 pages were viewed and 298 unique visitors could be identified. Even 81 visitors were prepared to give additional information. Website evaluation was completed by 45 patients and 80 patients prioritized recommendations into a big five. The vast majority was highly educated and within all different stages of subfertility treatment.

Discussion: This innovative method of patient participation seems to be promising regarding to the enthusiasm and willingness of patients to contribute. Nevertheless we see challenges for improvement in terms of developing a format for recommendations, continuous prioritizing method and bonding activities. Further research is recommended.

O25

CONSUMER ENGAGEMENT FOR A PUBLIC HEALTH GUIDELINE

Benefits of Early Consultation

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Background/Purpose: In 2008 NHMRC commenced revision of its *Dietary Guidelines*. The *Dietary Guidelines* provide Australia with authoritative nutrition advice and underpin government nutrition policy. Users include consumers, health/food industry, educational institutions, non-government organisations and government policy-makers.

Historically, NHMRC seeks input at public consultation, after the guideline is drafted. However due to high levels of interest in the *Dietary Guidelines*, NHMRC undertook consultation from the beginning of the review program.
Method:

1. Open invitation consumer meetings, advertised by letter and email and widely distributed through nutrition networks, were held nationally to provide information on the program and NHMRC's guideline development process.
2. A website was released to present information on the program and act as an open site for consumer consultation opportunities.
3. A survey was undertaken between April-September 2009 to collect current usage information on the *Dietary Guidelines,* and feedback and suggestions for the revised guidelines. Letters were sent to 84 user groups, particularly those with a nutrition focus, requesting similar information.

Results: NHMRC has received positive feedback from the consultations. There was good attendance at the information meetings (n = 110) and the survey has had 385 respondents to date.
Identified trends include:

- support for an interactive computer format,
- need for improved clarity, and
- support for accompanying materials to be tailored to separate user groups.

Discussion: The *Dietary Guidelines* are NHMRC's most popular guidelines. Consultation has raised awareness of the review program and provided tangible input opportunities for consumers. In particular the survey results will inform the format and presentation of the revised guidelines. For maximum impact public health guidelines need to be widely adopted, including government to inform policy, and health professionals to provide advice. Consultation has increased NHMRC's direct relationships with consumers. Early *buy-in* should result in greater uptake and implementation of the revised *Dietary Guidelines.*

O26
AUSTRALIA'S APPROACH TO CONSUMER INVOLVEMENT IN THE DEVELOPMENT OF BREAST AND OVARIAN CANCER GUIDELINES

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Background: Consumers should be active partners in decisions about evidence based practice. This ensures relevance and acceptability of guidelines and provides an additional perspective in the guideline development process. In Australia, meaningful involvement of consumers in the development of breast and ovarian cancer guidelines has been achieved by National Breast and Ovarian Cancer Centre (NBOCC).
Purpose: To describe the methods used to facilitate meaningful consumer input into all levels and stages of the guideline development process. This includes topic identification, development of research questions, guideline writing, external review, endorsement and implementation of guidelines.
Methods: Consumer representatives are members of all advisory and guideline working groups established by NBOCC. In all aspects of these groups, consumers, who are often trained in advocacy skills, have the same role and responsibilities as other professional groups represented. During external review and endorsement, the consumer perspective is sought both through individuals, and organisations which represent women with breast or ovarian cancer. Targeted dissemination strategies encourage consumers to promote implementation of the guidelines.
Results: In 2009, NBOCC conducted a review of its guideline development methodologies. The current high level of consumer involvement was highlighted and recommended to continue. A significant factor in the success of consumer involvement was attributed to the training provided through the Breast Cancer Network Australia 'Seat at the Table' Program.
Two additional recommendations were made to improve consumer involvement:

1. Establishing an online forum that will encourage a wider group of consumers to identify and prioritise topics for future guidelines.
2. Increase transparency of consumer involvement by developing and providing information to the general public about how they can be involved in guideline development.

Discussion: Building on existing consumer involvement by implementing these recommendations, will ensure consumers continue to play an active and significant role in the development of evidence based clinical practice guidelines.

O27
PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF LEAFLET FOR COLORECTAL CANCER SCREENING

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Purposes: To improve the participation rate in cancer screening programs, the target population needs to be appropriately informed. Although cancer screening guidelines have been published, no leaflets for the public that explains these guidelines in an easily understood manner have been developed. We attempted to develop a leaflet for the colorectal cancer screening guideline with public involvement.
Methods: Based on public/patient involvement in other

clinical guidelines, an original method, unique to the Japanese cancer screening guideline, was established for the cancer screening guideline leaflet.
Results: The leaflet development process is as follows: recruitment through the website, selection of committee members, meeting including a lecture on basic knowledge for cancer screening and specific issues related to colorectal cancer screening, planning the content for the leaflet, having a professional writer write the leaflet, external review by another person through a web based questionnaire survey, focus interview survey involving the public and a medical professional group, feedback of the results of the survey to the development committee, re-evaluation and improvement, and publication.
Discussion: Although there are several clinical guidelines targeted at patients, guidelines developed with patient involvement have been limited in Japan. There are differences between the public and medical professionals with respect to the necessary information related to cancer screening programs that need to be considered. Given our experience, there are several problems that need to be solved for the development of leaflet for cancer screening with public involvement including: the selection method for committee members, the support system for development of the leaflet, and understanding balance of benefits and harms among committee members.
Conclusion: We formed a unique method to develop the leaflet for cancer screening guideline with public involvement. By virtue of this method, other leaflets based on the Japanese cancer screening guidelines will be developed.

O28
LESSONS FOR OPTIMALIZATION OF PATIENT PARTICIPATION IN GUIDELINE DEVELOPMENT

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Active patient participation in guideline development is an emerging phenomenon. Arguments for patient participation are enhancement of legitimacy of decision making and increased quality and relevance of the results. However, patient participation in guideline development is methodologically still in an early stage of development.
Several initiatives are undertaken, but systematic reflections and scientific publications on this topic are limited. Patient participation requires additional resources, while evidence on the effectiveness is still lacking. To gain more insight in methods and conditions that enhance the effectiveness of patient participation, an exploratory study was conducted on the current practice of patient participation in guideline development particularly in the Netherlands. A literature study took place and semi-structured interviews (n = 46) were conducted among patient representatives, specialists and other parties involved in guideline development. They were identified by studying guideline reports and through the snowball method.
The results show that in the Netherlands, patient participation currently takes place in most multidisciplinary guideline development trajectories. The methods mostly used are the inclusion of a patient (representative) in guideline development committees, and consultation of patients through focus groups and/or questionnaires.
The results indicate that effectiveness of current initiatives, amongst others, seems to depend on characteristics related to the disease, the level of professionalization of the patient organization, and the attitude of involved professionals. Many conditions have to be fulfilled particularly if patients are to effectively participate in guideline development committees.
Among respondents there was no consensus on the most effective form of patient participation in guideline development. It is generally recommended to include patients from the initial phase of guideline development; formulating the key questions is often considered to be the most important stage of involvement.
Various recommendations are made; largely based on the Dutch situation and implications might be different in other contexts.

O29
WE WERE THE GROUP'S CONSCIENCE
An Evaluation of Patient and Carer Impact on NICE's Clinical Guideline Development

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Background: The National Institute for Health and Clinical Excellence (NICE) systematically involves patients and carers in the development of its clinical guidelines. To date, there has been little empirical evaluation of how and to what extent patients and carers add value to the process of guideline development.
Objectives: To compare and contrast the views and experiences of patients and carers, and those of health professionals involved in NICE's guideline development work, and to scrutinise the extent to which lay people contribute, and add value, to the process of developing guidelines.
Methods: A mixed methodology questionnaire survey was used, comprising both quantitative and qualitative questions, and covering themes such as: group working and chairing; support and training; value of lay members' contributions; outcomes and products. The participants were the patient and carer members and clinical chairs of 38 NICE guideline development groups. There were 126 eligible participants (86 patients/carers and 40 health professionals). The qualitative data were analysed using a simple narrative approach.
Results: There was an overall response rate of 59%. The study's findings demonstrated a very positive response,

from both the lay members and chairs, to both the philosophy and practical application of patient and carer involvement in developing NICE's clinical guidelines. In addition, the study showed the considerable added value that lay people can bring, through specialist expertise derived from personal experience. The majority (> 70%) of lay people were positive about their contributions to the group, 95% of the clinicians rated their value as *very high* or *high*.
Discussion: In addition to clearly identifying the successful aspects of patient and carer involvement in developing guidelines, the findings also indicate areas in which NICE's current approach could allow for more effective lay input, such as the value placed on the identification and incorporation of «patient» evidence.

O30
IMPLEMENTING EVIDENCE BASED GUIDELINES TO REDUCE INAPPROPRIATE DIAGNOSTIC PRACTICE

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Background: Inappropriate diagnostic practice is a significant problem in the health sector and is a threat to the efficient and effective allocation of scarce resources. An application called Diagnostic Imaging Pathways (DIP) is an on-line evidence based education and decision support tool designed to assist clinicians to choose the most appropriate diagnostic examinations in the correct sequence (www.imagingpathways.health.wa.gov.au).
Purpose: To quantify whether recommendations in DIP are implemented in an environment in which DIP is readily available and compliance is regularly encouraged, and to evaluate the impact of initiatives aimed at improving implementation.
Methods: Retrospective audits of medical records were carried out in relation to referrals for medical imaging from the Emergency Department (ED) of a large teaching hospital targeting four clinical conditions and diagnostic pathways, before and after interventions: Suspected Pulmonary Embolism; Ankle Injury; Suspected Renal Colic; Non Traumatic Acute Abdominal Pain. Any deviation between diagnostic practice and DIP recommendations was documented as non-compliance. Interventions which aimed at reducing the incidence of non-compliance involved requesters and providers of diagnostic imaging services, and were based on well developed and directed programmes of education and the introduction of modified request forms requiring 'proof' of adherence to pathways.
Results: Overall, incidences of inappropriate diagnostic practice occurred in 56% of patients prior to interventions and 40% of patients following interventions.
Discussion: Whilst the reduction was statistically significant, the interventions fell well short of eliminating inappropriate diagnostic practice. We need to better understand the factors (technological, systemic and political) that inhibit the implementation of guidelines and the techniques that are required to change clinicians' behaviour. Decision support must be better embedded into clinical work flow. Paper-based processes of requesting should be replaced by an electronic requesting system, and the steps in completing an electronic request should be linked to decision support afforded by DIP.

O31
FOSTERING THE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES BY TRAINING FACILITATORS

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Background: In 1999, under the auspices of an independent health authority, the regional associations of doctors in non-hospital practice in France set up a voluntary practice appraisal scheme. Between 1999 and 2004, doctors (*facilitators*) were recruited, trained in clinical auditing, and approved with a view to helping practitioners adopt standards derived from clinical practice guidelines (CPGs). Each facilitator was provided with a ready-to-use kit.
Purpose: To review facilitator performance and involvement in quality initiatives.
Methods: Questionnaires were sent out (in 2004 and in 2009) to the first groups of facilitators to be trained asking them about practitioners' choice of standards and their own involvement in quality initiatives.
Results: A total of 229 facilitators provided support to 1352 practitioners (852 general practitioners (63%); 500 specialists (37%)) in their practice appraisal, either on a one-to-one basis (840; 62%) or in groups (512; 38%). Standards derived from 78 CPGs were implemented. The 6 preferred topics were patients' medical records in primary care, safe drug prescribing in the elderly (over 70 years old), hypertension, diabetes, back pain, and vaccinations. The facilitators were involved, to varying degrees, in continuous medical education, care networks, peer review groups, and teaching.
Discussion: Practitioners prefer to appraise their practice on the basis of CPGs that concern highly prevalent public issues for which long-term validated data are available. The facilitators provided highly welcome support to a large number of practitioners. They not only fulfilled their initial mission of helping in the clinical audit but, as a result of their involvement in a variety of quality initiatives, were able to foster a *quality culture*. The limitation of this scheme is that it does not enable the measurement of the impact of changes in practice.

O32
IMPLEMENTING PREVENTIVE CARE GUIDELINES IN GENERAL PRACTICE
Lessons Learnt from Preconception Care

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Interventions to promote more effective delivery and uptake of preventive care in general practice are urgently needed. Guidelines for preventive activities before pregnancy exist, yet studies demonstrate low levels of knowledge and behaviour in women of reproductive age and suggest low levels of preconception care delivery by GPs. We aimed to improve implementation of preconception care guidelines in the general practice setting.
We used «Intervention Mapping» to systematically develop a quality care intervention. Following a barrier analysis we undertook a before and after study of the effects of a two part intervention: academic detailing and provision of resources (a preconception care checklist, website and patient information sheet) to GPs and use of waiting room posters informing women of the availability of preconception care by GPs. We measured the various components of preconception care delivered by 10 GPs during 90 consecutive consultations with women of reproductive age pre and post intervention and conducted follow-up interviews with all GPs and a sample of 25 of the women patients.
Delivery of any component of preconception care doubled, increasing from 11% to 21%. Posters in the waiting room were ineffective at encouraging women to attend preconception care or to raise preconception care during the current consultation. Despite feeling better skilled and resourced GPs still found it hard to deliver preconception care opportunistically.
The major barriers to preconception care – lack of patient awareness of need and opportunistic delivery – may be relevant to the implementation of other preventive care guidelines in the general practice setting. Further research is needed to determine if patient based strategies such as letters of invitation to attend preventive care and web based risk assessment tools prompting consultations may be more effective at achieving implementation of preventive care guidelines than strategies aimed at changing behaviour of medical practitioners.

O33
PERCEIVED BARRIERS TO THE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES
Why Don't General Practitioners Adhere to Guideline Recommendations in Practice?

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Background: Although clinical practice guidelines are widely accepted tools for quality improvement, adherence among Dutch general practitioners (GPs) is not optimal. To improve adherence it seems useful to perform a detailed analysis of barriers to the implementation of the key recommendations in guidelines.
Purpose: To identify the barriers to implementation of twelve national guidelines among Dutch GPs, by focusing on the key recommendations within guidelines.
Methods: A qualitative study using six focus groups was conducted, in which thirty GPs participated; ten of them participated in two or more sessions. Fifty-six key recommendations were derived from twelve national guidelines for general practice. In each focus group session barriers to the implementation of the key recommendations of two guidelines were discussed. Focus group discussions were audio-taped and transcribed verbatim. Data were analysed by using an existing framework of barriers.
Results: The barriers largely varied within guidelines, with each key recommendation having a unique pattern of barriers. The most perceived barriers were lack of agreement with the recommendations due to lack of applicability or lack of evidence (in 68% of the key recommendations), environmental factors such as organisational constraints (52%), lack of knowledge about the guideline recommendation (46%), and guideline factors such as unclear or ambiguous recommendations (43%).
Discussion: Our study revealed a broad spectrum of barriers. To improve adherence, guidelines should be more transparent concerning the underlying evidence and further efforts are needed on how to address complex issues such as comorbidity in guidelines. In addition, it might be useful to include focus groups in continuing medical education, as the participants considered the sessions as an innovative medium for guideline education and implementation. Finally, as barriers largely differ among key recommendations within guidelines, tailored and barrier driven implementation strategies focusing on key recommendations are needed to improve adherence in practice.

O34
SYSTEMS IMPACT OF IMPLEMENTING AND USING NURSING BEST PRACTICE GUIDELINES (BPGS) IN 3 CANADIAN HOSPITALS

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Background: The Registered Nurses Association of Ontario (RNAO), Canada in partnership with the Ontario Ministry of Health has taken a leadership role in developing and implementing numerous guidelines for nursing and healthcare professional practice.
Purpose: This study seeks a better understanding of the

complex processes involved in implementing and using the RNAO Breastfeeding guidelines in 3 acute care Canadian hospitals and the system impact (client, unit, interprofessional, organizational and community impact).
Methods: Constructivist grounded theory was used to guide the development of a theoretical model of Breastfeeding guideline implementation and use in 3 Canadian hospitals. Purposive and then theoretical sampling resulted in the recruitment of 100 healthcare providers (nurses, physicians, midwives, senior administrators…) and clients. Triangulation of data types occurred through in-depth interviews, documents and field notes. Concurrent data collection/analysis occurred. Two researchers analyzed data and confirmed codes and categories.
Results: Essential processes for the implementation and use of the RNAO breastfeeding guidelines include:

1. Being Supported from many perspectives including passionate leadership
2. Learning and Knowing why, how and that,
3. Being Expected to and Accountable to incorporate the guidelines into practice.

The perceived impact of implementing the guidelines includes enhancing – inter-professional collaborative relationships, organizational image, nursing practice, and the unit breastfeeding culture. Nurses perceived that the guidelines – improved and supported their practice, fostered recognition of nursing work as valued, credible knowledge work and enhanced their autonomy, confidence, knowledge, problem solving and professional pride. Improved consistency of breastfeeding teaching/practices enhanced both patient and nurse satisfaction.
Discussion: The RNAO Breastfeeding BPGs resulted in important local and system impact when effective implementation processes were used. Implementation processes illuminated in this study were fundamental to the guideline uptake in these contexts.
(Funding: RNAO BPG PhD Fellowship; Ontario (Canada) Ministry of Health and Long Term Care)

O35
PRIORITISING IMPLEMENTATION SUPPORT FOR SIGN GUIDELINES

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Background: SIGN has long been known for producing high quality evidence based clinical guidelines for the NHS in Scotland. SIGN is now developing systems to allow it to take a proactive and multifaceted approach to supporting implementation of its guidelines in order to drive improvements in the quality of NHS services.
Purpose & Methods: SIGN implementation support falls into 4 categories:

- Improved processes:
  – Robust dissemination process
  – More interactive website
- Awareness raising & Education:
  – Clinical champions for guidelines
  – Awareness raising activities
  – Patients as champions for change
  – Developing educational tools
- Networking:
  – Linking with existing networks and projects
  – Annual implementation conference and regular meetings with NHS Boards
  – Field support team to provide implementation advice
- Implementation support resources:
  – Resource implications calculator
  – Algorithms & Care Pathways
  – Data sets
  – Electronic decision support tools

In order to prioritise the range of implementation support activities, a survey of over 1,000 NHS Scotland staff has been performed. This survey is aimed at clinical staff from every discipline and profession, asking them for feedback on what they would find useful.

O36
ESTIMATING TIME AND COSTS FOR GUIDELINES' DEVELOPMENT

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Background: Developing evidence based guidelines is an expensive and time-consuming process. At the beginning of such a project, the necessary funds are very difficult to calculate.
Purpose: In order to facilitate the calculation of necessary funds and resources for guidelines development, we documented the time necessary to collect the evidence for the recommendations during the development of the German S3 – evidence based Guidelines for the Treatment of Psoriasis vulgaris.
Results: Development of a search strategy using OVID as an access to MEDLINE; EMBASE and the Cochrane Library takes 1-2 days; development of a literature evaluation form with inclusion and exclusion criteria with a small pilot phase takes 4-5 days. Screening of 100 hits by two assessors takes 2 x 15-20 minutes, comparing and discussing differences in 10 assessments takes 15 minutes, transferring 10 references into a database and retrieving the PDF files if they are available online takes 30 minutes.
Screening for 20 inclusion and quality criteria and assessing the quality of a study (blinding, randomisation etc.) by two assessors and choosing a grade of evidence, takes about 2 x 20 minutes per study, collecting five information (reduction of psoriasis area and severity index, improvement in quality of life score etc.) from 1 publication takes

15 minutes. Intraindividual differences can be immense. Necessary time for writing, editing and consenting the recommendations varies largely.
Discussion: Time and resources necessary for the development of guidelines are very difficult to estimate. The most time consuming process lays in the checking of inclusion criteria and quality assessment as well as in the retrieval of data result from the included publications.
An experienced methodological centre with a full time coordinator may help to reduce necessary costs and can significantly speed up guidelines development.

O37
USE OF LANGUAGE TO CONVEY OBLIGATION IN PRACTICE GUIDELINES
Suggestions for a Standardised Approach

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Background: Expressions that convey obligation (e.g., *should consider* and *is recommended*) appear frequently in practice guidelines yet their influence on clinicians' perceptions of obligation to undertake recommended actions is unknown. An understanding of how readers interpret expressions of obligation would allow guideline authors to strengthen the connection between guideline language and expected adherence to guideline recommendations.
Purpose: To describe the variation in interpretation of level of obligation among commonly found deontic terms in practice guidelines.
Methods: Researchers constructed an internet-based, electronic survey that presented each of 12 expressions within simplified recommendations statements. Participants indicated the level of obligation they believed guideline authors intended by using a slider mechanism ranging from *No obligation* (leftmost position recorded as 0) to *Full obligation* (rightmost position recorded as 100.) All 1332 registrants of the 2008 annual conference of the US Agency for Healthcare Research and Quality were invited to participate.
Results: 445/1332 registrants (36%) submitted the on-line survey. *Must* conveyed the highest level of obligation (median = 100) and least amount of variability (interquartile range = 5.) *May* (median = 37, interquartile range = 40) and *may consider* (median = 33, interquartile range = 42) conveyed the lowest levels of obligation. All other expressions conveyed intermediate levels of obligation characterised by wide and overlapping interquartile ranges.
Discussion: Members of the health services community believe guideline authors intend variable levels of obligation when using different expressions within practice recommendations. Ranking of a subset of expressions by intended level of obligation is possible. *Must*, *should*, and *may* are well suited to represent three discrete, non-overlapping levels of obligation. Matching expressions of obligation to grades of recommendation strength can help standardise the use of such expressions by guideline developers.
(Accepted for publication in Quality and Safety in Healthcare.)

O38
IMPROVING DECISION-MAKERS' RESPONSE TO GUIDANCE THAT A NEW INTERVENTIONAL PROCEDURE IS 'SAFE AND EFFICACIOUS'

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Background: Definitions of *efficacy* and *effectiveness* are often used interchangeably and tend to vary from setting to setting; therefore it becomes unclear to meso-level decision-makers when policy-maker organisations make pronouncements about a health technology being efficacious or effective without further details of the actual types of evidence underpinning the guidance. In practice, decision-makers are more interested in whether the intervention works (does it work? – effectiveness) than whether the intervention can work (can it work? – efficacy).
Purpose: The aim of this presentation is to propose a more meaningful approach to distinguishing efficacy outcomes from effectiveness outcomes to help guide policy-makers in guidance development.
Methods: The Interventional Procedures Programme (IPP), working under the auspices of the National Institute for Health and Clinical Excellence (NICE), amongst other activities, issues guidance on the safety and efficacy of new interventional procedures. Using this programme as a case study, the nature of evidence underpinning their guidance is investigated and the ability to extrapolate effectiveness outcomes such as serious morbidity and quality of life, that are more relevant to health services and people affected is assessed using the proposed approach.
Results: A total of 198 procedures were evaluated by the IPP between July 23rd, 2003 and February 24th, 2007 of which 88 were eligible. Preliminary results suggest that evidence that goes beyond efficacy is available for some procedures. Moreover, the types and balance of evidence available varies considerably between procedures for which the same category of guidance had been issued.
Discussion: The evidence available for new procedures is broader as it can go beyond efficacy. A more meaningful approach to distinguishing efficacy outcomes from effectiveness outcomes to help guide policy-makers in guidance development should be used.

O39

A NATIONAL PATIENT SAFETY PROGRAMME
Towards the Drafting of New Guidelines

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Background: Patient safety is a high priority. In French hospitals, 150,000 adverse events could be avoided each year (2004 ENEIS survey).
Purpose: To develop a voluntary educational scheme based on the implementation of risk-reduction guidelines in hospitals.
Methods: In 2006, 19 high-risk medical and surgical specialties were invited to participate in a *doctor certification scheme* based on the reporting of near-misses. Near-misses are a valuable means of discovering how to avoid adverse events. Each specialty had to establish a risk management programme based on known risks and available guidelines, and each participating doctor had to report at least 3 near-misses/year (one relating to a known risk), implement guidelines, and enrol in recommended activities (training, registries). Experts within each specialty analysed the causes of failure in the delivery of care and the recovery measures taken to reduce the severity of an event (practices, techniques, and tools) with a view to developing new risk-reduction guidelines.
Results: So far (May 2009), 16 high-risk specialties have entered the scheme; 13 are requesting reports of near-misses for 38 known at-risk situations, and recommending 27 guidelines and 37 activities; 8000 doctors have enlisted (target: 35000) and reported > 10000 near-misses. The experts' analysis of the first near-misses has provided a substantial amount of new data but not enough information on root causes. Only 3% of doctors were willing to share the contents of their reports with their hospital's management.
Discussion: The interest generated by the scheme shows that specialties and doctors are keen to develop a risk reduction culture provided the context is right (suitable incentives, etc). The high volume of data already generated on near-misses should provide a solid foundation for new patient safety guidelines (e.g. a wrong site surgery checklist). Work is progressing on a suitable method for drafting these guidelines.

O40

SYNERGIES THROUGH INTEGRATING GUIDELINE AND QUALITY INDICATOR DEVELOPMENT
Experiences from a National Program

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Background: The German national quality benchmarking project is mandatory for all 1,500 German acute care hospitals. Indicator sets for 26 areas of healthcare with 190 indicators are in use. 27 of these indicators are used for mandatory public reporting.
National and international Guidelines are the most important information source for indicator development in this project. On the other hand indicator results provide information for the national guideline development teams for further development and updates of guidelines as well as information on the grade of implementation. Furthermore the implementation of guidelines can actively be influenced by benchmarking programs.
Purpose: The synergistic potential of an integrated approach on guideline and indicator development is shown using examples from cardiac surgery, community-acquired pneumonia and obstetrics.
Methods: Results from the German national benchmarking project from 2004-2008 are analysed.
The indicator *Lung maturation therapy for preterm labour* is used as an example to show how indicator results can be used to detect necessities for guideline updates.
The indicator *Oxygenation assessment in community acquired pneumonia* is used as an example to demonstrate the potential of guideline-based indicators to monitor the grade of guideline implementation.
The indicator *Use of internal mammarian artery as a bypass graft in CABG-surgery* is used as an example how systematic interventions can support guideline implementation.
Results: The indicator *Lung maturation therapy for preterm labour* showed a national rate of 62.1% in 2004. Analyses of this unsatisfactory result showed that a German guideline recommended lung maturation therapy only for babies with a gestational age of 28-32 weeks while international recommendations on an evidence level Ia recommended lung maturation therapy for gestational age 24-34 weeks. Indicator results triggered an an update of the guideline.
For community acquired pneumonia measurement started in 2005 at the same time as a national guideline was released for the first time. Rates for the guideline-based indicator *Oxygenation assessment in community acquired pneumonia* improved from 67.3% in 2005 to 84.1% in 2007.
Rates for the indicator *Use of internal mammarian artery as a bypass graft in CABG-surgery* improved from 87.9% in 2004 to 91.1% in 2007. Minimum hospital results improved from 24.2% in 2004 to 82.0% in 2007. Hospitals with initially low rates were included in a systematic intervention program and showed a significant improvement of their results.
Results of 2008 will be presented at the conference.
Discussion: An example from obstetric care shows how indicator results can point out deficiencies of guidelines that are used in practical care.
The parallel publication of a high-level national guideline for community-acquired pneumonia and start of a measurement program demonstrates that the implementation grade of guidelines can be measured effectively.

An example from cardiac surgery shows that a systematic intervention at hospitals with unsatisfactory results in guideline-based indicators is useful to trigger improvements in process quality.

O41
DEVELOPMENT OF A STARTER SET OF AMBULATORY QUALITY INDICATORS

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Quality is an increasingly competitive factor in the public health sector in Germany.
In order to measure, analyse and assess quality, reliable quality indicators are necessary. Therefore, developing a set of reliable quality indicators for the outpatient care sector was the objective of the *AQUIK® – Ambulatory Quality Indicators and Key Measures* project, carried out by the National Association of Statutory Health Insurance Physicians (NASHIP) between 2006 and 2009.
The AQUIK® project consists of four milestones. We first conducted a systematic review of international and national indicators which are relevant to the outpatient care sector in Germany. From those we selected a sample according to criteria such as prevalence of the disease pattern, variety of care and cost of care. This sample then underwent a structured rating process according to the RAND/UCLA appropriateness method by medical experts who evaluated the quality indicators regarding the criteria relevance and feasibility. In a further step, data availability and accessibility were tested in medical practices within a feasibility analysis. The AQUIK® project was supported by international and national experts such as medical doctors, scientists, professional organisations, scientific-medical associations and representatives of Associations of Statutory Health Insurance Physicians.
The project provides three main results. A database of more than 2000 international quality indicators. A pattern of how to systematically develop and assess a set of quality indicators, and finally the AQUIK®-Set itself of 48 structurally developed and reliable quality indicators which focuses on chronic diseases of primary care (hypertension), internal medicine (rheumatoid arthritis), neuropsychiatrics (depression) as well as prevention (vaccination) and patient centered care (home visits).
The AQUIK®-Set opens up improved possibilities for the demonstration of quality in healthcare. The study furthermore provides important methodological basics for the future development and assessment of quality indicators. It raises questions, especially regarding the creation of a supportive IT infrastructure in order to implement the quality indicators in medical practices as well as the most appropriate field of implementation (e.g. P4P, public reporting, quality management).

O42
SIMULTANEOUS DEVELOPMENT OF GUIDELINES AND QUALITY INDICATORS
Results of an International Survey

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Healthcare quality indicators are explicitly defined and measurable items referring to the structures, processes, or outcomes of care. Development of quality indicators must comply with high quality methodological standards and should be performed in a comprehensible and transparent manner by means of a systematic method. One systematic, evidence based approach is to develop indicators based on clinical guidelines. For example, review criteria derived directly from clinical guidelines are now part of NHS policy in England and Wales through the work of the National Institute for Clinical Excellence. However, to date, there is no *gold standard* for the deduction of quality indicators during or after guideline development. As a first step towards such a gold standard, we conducted a survey among G-I-N members (88 member institutions) to explore the state of the simultaneous development of clinical practice guidelines and respective quality indicators worldwide. The questionnaire covered institutional characteristics, the purpose of the quality indicators developed, and several items about the processes used for the simultaneous development of guidelines and quality indicators such as rating of the methodological rigor of the procedure or description of the team involved. We will present the results of this survey and will draw first conclusions that might help to identify potential starting points for methodological standards and further need for research.

O43
DEVELOPMENT OF QUALITY INDICATORS AS AN INTEGRAL PART OF GUIDELINE PRODUCTION
Methodology and Results from the German National Disease Management Guidelines Programme

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Since 2008 the development of Quality Indicators is mandatory for every new German National Disease Management Guideline (NDMG) with the aim of improving guideline implementation. The quality indicators are developed in cooperation with the guideline authors. Besides criteria for assessment, an evaluation scheme has been elaborated to decide about final integration of a quality indicator.
Quality indicator sets have been developed for the NDMG asthma (n = 11 process indicators) and chronic heart failure (n = 11 process indicators). The results will be discussed under consideration of strengths and shortcomings of the methodology.

O44
USING CLINICAL PRACTICE GUIDELINES TO IDENTIFY SUBJECT AREAS FOR QUALITY ASSURANCE MEASURES

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In accordance with § 137a SGB V, the Federal Joint Commission (G-BA) commissions an institute to develop indicators for the measurement and presentation of quality in healthcare. Suitable topics must be found for the commission and, if necessary, be prioritized. In order to support the G-BA's topic search, IQWiG is developing and testing a method to explore the latest quality assurance measures. By way of example, the topics *Cataract operation* (http://www.iqwig.de/index.855.html) and *Conization of the cervix uteri* (http://www.iqwig.de/index.854.html) illustrate how, by conducting a systematic search for clinical practice guidelines (CPG) and summarizing CPG recommendations, statements can be identified on healthcare problems, quality assurance measures both already in existence and still to be developed, and especially on the development of quality indicators.

O45
COST EFFECTIVENESS OF A GENERAL PRACTICE CHRONIC DISEASE MANAGEMENT PLAN FOR CORONARY HEART DISEASE IN AUSTRALIA

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Background: Chronic disease management models of care are increasingly being used as an avenue to better implement clinical guideline recommendations, address evidence-management gaps and improve health outcomes. Prior to advocating at a national level for the implementation of such programs, it is important to consider their likely efficacy and cost-effectiveness.
Purpose: The cost-effectiveness of a proposed general practice-based program for managing coronary heart disease (CHD) patients in Australia was explored using an economic model.
Methods: A secondary prevention program based on initial clinical assessment and 3 monthly reviews, optimising pharmacotherapies and lifestyle modification, supported by practice registers, patient recall mechanisms, and financial incentives for quality of care and outcomes achieved, was assessed in terms of incremental cost effectiveness ratio (ICER), in Australian dollars (A$) per Disability Adjusted Life Year (DALY) prevented.
Results: Based on 2006 estimates, 263,487 DALYs were attributable to CHD in Australia. The proposed program would add A$115.65 million to the annual national health expenditure. Using an estimated 15% reduction in death and disability and a 40% estimated program uptake, the program's ICER was calculated as A$8,081 per DALY prevented. With more conservative estimates of effectiveness and uptake, estimates of up to A$38,316 were observed in sensitivity analysis.
Discussion: Many strategies proven to reduce CHD morbidity and mortality are currently available. However, there are significant evidence-management gaps in care. A general practice based program for the optimal application of current evidence based management recommendations is likely to be cost-effective and provide substantial health benefits. Recognising the close interrelationships between CHD, other forms of cardiovascular disease and diabetes, there are opportunities for such a program to build on and integrate with other chronic disease management funding and program initiatives in Australian general practice.

O46
COMPUS AND THE CADC
National and Provincial Collaboration in Optimal Prescribing Recommendations

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Background: Academic detailing is a form of continuing education in which a trained healthcare professional visits clinicians in their offices to provide a one-on-one evidence-informed educational session. Systematic reviews have shown that academic detailing is effective in changing clinician behaviour. In Canada, health is a provincial responsibility, while the national government approves medications and sets standards. Six Canadian provinces with academic detailing programs have formed the Canadian Academic Detailing Collaboration (CADC) to share expertise and promote evidence based practice. COMPUS, the Canadian Optimal Medication Prescribing and Utilization Service, (a directorate of the Canadian Agency for Drugs and Technologies in Health) is a Pan-Canadian service funded by Health Canada that identifies and promotes optimal drug therapy. COMPUS and the CADC have been collaborating for several years.

Purpose: The purpose of the COMPUS/CADC collaboration is to develop and disseminate recommendations and key messages to optimize prescribing.
Methods: Through an extensive literature review and appraisal of studies, COMPUS produces cost-effectiveness evidence, and develops evidence based recommendations. A member of the CADC serves on the COMPUS committee that develops recommendations. Other members of the CADC help in developing key messages and producing tools to aid dissemination and uptake of the recommendations. Finally, the CADC academic detailing programs disseminate the COMPUS key messages through their educational visits with clinicians.
Results: An example of COMPUS/CADC collaboration has been the development and dissemination of evidence based recommendations for optimal prescribing of proton pump inhibitors. Together they created key educational messages and knowledge translation tools including: interactive case studies, a newsletter, an alternate prescription pad to promote lifestyle changes, a cost-comparison chart, and an evidence overview. Future endeavours may include insulin analogues and self-monitoring of blood glucose.
Discussion: The COMPUS/CADC collaboration is an example of national and provincial evidence based groups working together in knowledge translation to promote optimal prescribing.

O47
FROM KNOWLEDGE TO ACTION
Clinical Practice Guidelines, Electronic Medical Record and Change Management

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Justification: Clinical practice guidelines (CPG) have been introduced to bridge de gap between research and practice. There is evidence that guidelines are effective in changing the process and outcome of care, provided that their implementation into daily practice is successful.
Objectives: To support professional decision making and organisation transparency by monitoring the implementation of CPG through electronic patient records (EPR), to improve health outcomes. Scope: primary care, in the context of a public health service.
Methods: 1. Indicators' development process: a) definition of relevant and useful clinical indicators for 20 prioritized diseases. Methodology involved CPG selection, enumeration of recommendations and consensus-based selection by practicing physicians; and, b) with the participation of external reviewers from primary and secondary healthcare professionals, RAND methodology was used to assess which indicators required continuous monitoring and so, standardization of data in EPR. In a second stage, the indicators were reviewed and refined, using the Delphi method. 2. Change-management activities and tools: a) extension of knowledge of CPG and prioritised indicators through online training and virtual library; b) single EPR; c) accessibility in office practice incorporating indicators into EPR, accompanied by tools for their exploitation and monitoring; d) measures to improve availability of professionals' time, with modifications to staff and organisation; and e) professional management and incentive model targeted at implementing EPR and monitoring prioritized clinical indicators.
Results: a) 2,400 (100%) trained primary care physicians; b) 98% general practitioners with computerised consultation and access to virtual library; c) 50% primary care professionals (general practitioners, nurses,…) with access to EPR; d) feasibility of the proposed indicators tested through auditing.
Discussion: Implementation of EPR affords an excellent opportunity to reduce the gap between the achievable and the achieved. Nevertheless, such records must encompass scientific-professional as well as organisational aspects.

O48
ARE UNIVERSAL THE FACTORS RELATED TO PHYSICIANS' ADOPTION OF CLINICAL PRACTICE GUIDELINES?
Experiences in Korea

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Background: Physicians' adoption and implementation of clinical practice guidelines (CPGs) are no less important than the development of these guidelines. Many researchers have made considerable efforts to explain and investigate the issues and related factors involved in the adoption and implementation of CPGs in clinical fields.
Purpose: This study aims to investigate the factors related to the adoption and implementation of CPGs in clinical settings in Korea with comprehensive analytic model.
Methods: We examined physicians who are affiliated with three different medical academic societies, and who were experienced in developing CPGs. 324 cases were collected by using a structured questionnaire at the fall of 2007.
Results: From all the respondents, 48.8% stated that they followed CPGs, and 93.4% agreed with the content in the CPGs. With regard to the item on the self-efficacy of practicing CPGs, 90.3% of the respondents selected 'low level'. 11.7% of the respondents were found to use these guidelines all the time, and 60.8% were found to use them only sometimes. In the analysis of the relationship between the recognition, agreement and implementation levels, the group with high scores for agreement, recognition and self-efficacy demonstrated a higher implementation score than the other group. In the regression analysis, the factors associated with implementation were level of recog-

nition, agreement and self-efficacy and positive attitude towards CPGs.
Discussion: Although the healthcare system in Korea differs from those in Western countries, our results revealed that the factors related to the adoption and implementation of CPGs, as found in our study, were similar to the results of research conducted in Western countries. These results suggest that professionals' attitudes towards CPGs are universal, and implementation strategies should be developed globally.

O49

eCDS, EVIDENCE AND TRANSPARENCY

Towards a Standards-Based Approach for eCDS Implementations

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Electronic Clinical Decision Support (eCDS) systems are interactive computer applications which assist physicians and other health professionals with clinical decision making at the point of care; they have the potential to improve the consistency and quality of clinical care.
Evidence based clinical guidelines are definitive statements of best clinical practice, developed from systematic appraisal of the clinical literature.
eCDS implementations of clinical guidelines are demanding of end-to-end process governance to ensure that the clinical logic of a guideline is faithfully and safely reproduced in the options and recommendations offered to a clinician, in a given clinical context and setting, by a given eCDS tool.
As complex narrative documents, clinical guidelines naturally give rise to a degree of interpretive freedom on the part of guideline users, including eCDS developers, for whom long narrative documents can be very challenging to 'disambiguate' and convert into computer-interpretable rule-sets.
New Zealand Guidelines Group are working with the New Zealand Ministry of Health, clinical leaders and eCDS and Patient Management System vendors to develop a national *Standard for the Development and Management of Electronic Clinical Decision Support (eCDS) Systems*. The Standard will be used in New Zealand to improve the transparency and safety of eCDS implementations. The Standard will:

a) assist accurate communication between setters of clinical standards such as NZGG and eCDS/PMS vendors
b) Specify the governance systems, practices and steps which will assure both clinical validity and patient safety in eCDS implementations.
c) include reference to internationally and nationally endorsed medical terminology sets and coding systems

The context, rationale and some of the likely challenges will be discussed.

O50

DRAFT CLINICAL GUIDELINE INTERNET CONSULTATION

First Experiment in France

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Background: Up to 2008, French draft guidelines were confidentially submitted for peer review to a limited group of professionals and patient representatives chosen by guidelines developers. This choice was based on propositions made by selected learned societies and patient associations. In order to broaden perspectives, Internet public consultation for draft clinical practice guideline (CPG) was first experiment in French context in 2009.
Purpose: To collect non-preselected stakeholders' comments on draft CPG.
Methods: To spread information on consultation project, press release was sent to medias and identified stakeholders 4 weeks before it. Preregistration was required to avoid more than one response per stakeholder organization. Draft guideline and questionnaire were posted on agency website for 6 weeks. Stakeholders were asked to give their opinion as a whole and on each guideline's chapters on a 9-point Likert scale. Open comments could be posted. Khi-2 tests were performed to compare results from patient representatives' *vs* professional's organizations.
Results: 216 stakeholders pre-registered; 13.4% were excluded (double registration); 91 answered, 74.7% weren't identified by CPGs developers before consultation. Overall, 44.0% gave a favorable opinion on guidelines, 29.7% were undecided, and 26.4% disagreed. Compared to professional's organizations, deaf people's and deaf child parents' associations (n = 29) judged more severely the draft guideline on following chapters (a) *Information for deaf child families* (favorable judgment: 22.2% *vs* 53.3%, $p = 0{,}02$), (b) *Communication and language evaluation* (favorable judgment: 25.9% *vs* 54.4%, $p = 0{,}03$), (c) *Deaf child and family early interventions places* (favorable judgment: 33.3% *vs* 56.6%, $p = 0{,}04$).
Discussion: It's feasible in French context to collect non-preselected stakeholders' comments on draft guideline. Qualitative comments, very heterogeneous, reflected French society debate on sign language and/or cochlear implants issues for deaf children education. This new process pointed out different perspectives and acceptability from deaf children's representatives and professionals.

O51

HOW TO IDENTIFY AND BRIDGE GAPS BETWEEN CURRENT PRACTICE AND KEY RECOMMENDATIONS IN CLINICAL GUIDELINES FOR PERSONS WITH CONCURRENT MENTAL DISORDERS AND SUBSTANCE USE DISORDERS?

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Background: There is a lack of experience in implementing clinical guidelines in Norway. This presentation outlines a pilot project dealing with developing knowledge-based strategies for implementing clinical guidelines for persons with concurrent mental disorders and substance use disorders (SUD). One of the first steps in our implementation process has been to conduct an analysis of current practice among clinicians in mental health services and in substance misuse services.
Purpose:
1) To identify gaps between current practice and key recommendations in the guideline,
2) To identify which changes in current practice are most needed, and which aspects of care should the implementation strategy target.
Methods: A nationwide survey with a representative sample of clinicians in psychiatric out-patient units (n = 776) and in substance misuse out-patient units (n = 271) was conducted.
Results: There are large gaps in psychiatric outpatient units with regard to practice, attitudes and knowledge towards persons with mental disorders and SUD, using the recommendations in the guideline as a gold standard. The staff rarely offers treatment to persons with SUD, there is a lack of systematically screening for SUD and integrated treatment is not offered. Clinicians in substance misuse services are offering treatment to persons with mental disorders and regard it as their duty to treat them. According to assessment routines, they could do better in assessing mental problems. The clinicians report that they need more knowledge and skills regarding assessment and integrated treatment.
Discussion: How can we bridge these gaps and where should we start? Clinicians in both systems are in need of training both for assessing and treating people with mental disorders and SUD, but the biggest gap is among clinicians in psychiatric services. An important question is to prioritize our effort, ie. in settings where change is most needed or where the attitudes to change is recognized the most.

O52
HOW HAS DEVELOPS AUDIT SUPPORT
The Stroke Experience

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Background: Audit support is one of the tools used to implement guidelines. With its ready-to-use list of criteria, audit supports allow physicians to assess and improve their clinical practice individually or collectively. They can also be used in accreditation of healthcare organisations or in the development of reminders.
Purpose: Presenting and illustrating through an experience the HAS method to develop audit criteria.
Methods: Detailing the steps for producing an audit support developed from the HAS clinical practice guideline (CPG) on vascular prevention after an ischemic stroke or transient ischemic attack.
Results: Some members of the Guideline Development Group of the aforementioned HAS CPG volunteered to participate in the Working Group (WG) in charge of the development of an audit support. During a 1-day meeting, the members of the WG selected the recommendations deemed as major to improve clinical practice. A criterion was proposed for each selected recommendation, as well as the justification of that choice and how to use it. Then, audit criteria were sent to a Testing Group (TG) composed of 10 physicians who tested their acceptability and feasibility and gave their feedback. From the comments of the TG members, the WG tailored the criteria during another 1-day meeting. In order to be more efficient and applicable, some criteria had to be cut in 2 or 3 criteria. A total of 28 criteria were created from 21 recommendations. The whole process lasted 4 months.
Discussion: The audit support is a fast-to-be-made tool for implementing guidelines. Audit criteria can be used wholly or partly, electronically or in an old-fashioned way (paper), and be part of an accreditation process or integrated in the development of reminders.

O53
INTERSPECIALTY COLLABORATION IN THE DEVELOPMENT OF GUIDELINES

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Short description: Currently there are three important issues in the development of guidelines for diagnostic imaging (DI):

1. Difficulties in developing evidence based guidelines for DI.
2. Fostering interspecialty collaboration which is essential for the development of DI guidelines.
3. The development of two separate streams of DI guidelines: DI incorporated into clinical practice guidelines and DI guidelines produced by radiological societies.

These issues will be presented and participants will be encouraged to discuss approaches to dealing with them.
Target groups:

1. Anybody involved in the development of clinical practice guidelines which incorporate DI.
2. Radiologists and other representatives of radiological organizations.
3. Healthcare administrators interested in the utilization of diagnostic imaging.

Main goals:

1. To increase awareness of the issues involved in the development of guidelines for DI.
2. To explore various approaches to dealing with these issues.
3. To encourage dialogue and collaboration between groups involved in developing guidelines for DI or clinical practice guidelines which incorporate DI.

O54

JUST FINISHED DEVELOPING A GUIDELINE, HOW DID WE DO?

A Process Evaluation

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Background: The ADAPTE framework outlines a systematic approach for adapting clinical practice guidelines (CPGs) to a local context. The Alberta Health Technology Assessment Ambassador Program melded and contextualized seven 'seed' guidelines into one CPG on low back pain.

Purpose: To identify the successful strategies and major challenges associated with the process used to develop the CPG, benchmark the process with the ADAPTE framework and identify opportunities for improvement to replicate the process for the next CPG.

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

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

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

Results: Even though the Alberta healthcare system was undergoing major changes we had a response rate of 86% (30/35). There was strong consensus among the stakeholders interviewed that the process used to develop the CPG for low back pain was a sound and rigorous research process. This was primarily due to the following: strong project leadership; multi-disciplinary approach; Province-wide representation on both the Advisory Committee and Guideline Development Group (GDG); relevance to primary healthcare; substantial support provided by the Project Team; commitment among all participants to a transparent process; and quality evidence-informed product.

The process was found to be closely aligned with the ADAPTE framework and included additional enhancements to the quality appraisal tool for the CPGs; use of the GLIA tool to develop the recommendations and patient input.

Discussion: All members of the GDG indicated they would participate in the development of the next CPG.

O55

THE LAST FRONTIER?

Autonomy, Uncertainty and Standardisation in Norwegian General Practice

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Background: The initiative to reduce unwarranted variation in practice through the introduction of evidence based clinical guidelines emerged from within the medical profession during the early 1990s. In later years, a focus on priority setting and cost control has been added; health authorities increasingly use clinical guidelines to secure just distribution of healthcare. However, general practitioners (GPs) seem to be the group of doctors that is most reluctant to follow guidelines, and repeated surveys of the barriers to using guidelines have failed to understand and thus to change clinical behaviour.

Purpose: This study explores the rationale behind GPs' reluctance to follow guidelines.

Methods: Semi-structured in-depth interviews with groups of Norwegian GPs.

Results: In these interviews the general practitioner was identified as an independent generalist with a close alliance to the patient and a sceptical distance to academic medicine and health authorities. Thus these practitioners felt that guidelines conflict with their sense of clinical autonomy.

Discussion: The post-modern GP faces the predicament of either making decisions without the time to keep updated or submitting to government 'coercion' at the cost of clinical autonomy. These GPs' frustration with their professional situation highlights the need to ground the debate about resistance to standardisation of practice in the practitioners' own experiences. The study also indicates that the authorities should increase the transparency and accountability of the standardisation process.

O56

TRANSLATION OF EVIDENCE INTO PRACTICE

An Experience from the Internal Medicine and Primary Care Practices in the United States

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Background: Variability in patient care is staggering. There is a quality gap between evidence, physician's perception of care they provide, and their actual practice pattern.

Purpose: The purpose of this program by the American College of Physicians is to help physicians use evidence based medicine and clinical decision support tools to help guide their decision making. We help physicians identify and measure key quality indicators to demonstrate continuous improvement in health status indicators for their patients.

Methods: This program utilizes a pre-post intervention

design to evaluate physicians' knowledge, attitude, and behavior for management of their patients. Physicians are asked to collect actual practice data from patient chart abstraction to help analyze their own practice patterns and identify gaps. The intervention for this program is a web based educational program focusing on various disease conditions and utilized to increase physicians' awareness of the standards of care. Physicians can participate in any number of programs based on their topic of interest. We teach physicians how to implement clinical quality improvement tools and techniques and educate office-based physicians on evidence based *best practices*. Confidential reports and feedback are provided to the physicians with information on their quality indicators. Physicians also receive help from experts through conference calls to interact and get guidance with the process for practice improvement and help them set goals to change their practice by developing implementation strategies based on the data they provided.
Results: Our results have shown an improvement in physicians' knowledge and behaviour as well as changes in the process and outcome measures.
Discussion: By participating in this project, physicians demonstrate: 1) their ability to assess the quality of care they provide; 2) the care was based on best available evidence and clinical guidelines; and 3) they compare the care they provided with national benchmarks as well as their peers.

O57
LINKING PRIMARY CARE AND PUBLIC HEALTH
The Canadian Task Force on Preventive Healthcare

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Background: Widespread support exists for the Canadian Task Force on Preventive Healthcare and its previous 25-years of work pioneering the development of preventive care guidelines. This provides an opportunity to build on this foundation and ensure that the renewed Task Force model is appropriate to the current context of a healthcare system burdened by chronic disease and where primary care and public health issues increasingly intersect.
Purpose: This oral presentation will enhance understanding of priorities, opportunities and challenges to strengthening connections between public health and primary care in the context of practice guidelines. The findings will inform partnership approaches and plans for how the Canadian Task Force and other related national guideline development groups can help bridge public health and primary care.
Methods: Descriptive review of key International and Canadian reports and published literature relating to primary care and public health intersection. Thematic analysis of key informant interviews with regional and national primary care and public health researchers and practitioners.
Results: Highlights from the analysis indicate several key themes: the importance of combining practice guidelines with continued focus on patient/community need; identifying opportunities for service coordination and referral; the need to situate practice guidelines in a comprehensive range of services to improve population health from personal care to health promotion; improving care by applying a population perspective to medical practice; and the importance of regional, provincial and national efforts to support joint sector policy, training and research.
Discussion: Based on the findings of this analysis, opportunities to further complementary efforts between primary care, public and community health will be presented. In addition, implications for the Canadian Task Force on Preventive Healthcare and other similar national-level guideline development groups will be proposed in order to contribute to seamless preventive care and public health practice.

O58
APPLICABILITY OF CLINICAL PRACTICE GUIDELINES ON PATIENTS WITH COMORBID CONDITIONS

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Background: Guidelines traditionally focus on the diagnosis and treatment of single diseases. As almost half of the patients with a chronic disease have more than one disease, the applicability of these guidelines to patients with multiple conditions may be limited.
Purpose: To assess the extent that guidelines address comorbidity and to assess the evidence-base of recommendations related to comorbidity.
Methods: We focused on three highly prevalent chronic conditions: osteoarthritis, depressive disorder and COPD. Evidence based guidelines were selected from the National Guideline Clearinghouse (NGC) and the Guidelines International Network Library (G-I-N). Data were abstracted from each guideline on the extent that comorbidity was addressed (general comments, specific treatment recommendations), the type of comorbidity discussed (concordant, discordant), the focus of recommendations (drug therapy, lifestyle, other), and the supporting evidence of recommendations related to comorbidity.
Results: 12 guidelines met the inclusion criteria. Nearly all selected guidelines addressed the issue of comorbidity and two-thirds of them provided specific recommenda-

tions on comorbidity. If specific recommendations were provided, it mostly concerned concordant comorbidities, such as dementia in guidelines on depressive disorders. Most guidelines did not provide specific guidance for addressing burden impact and priority setting of treatment goals. Nearly all specific recommendations regarding comorbidity concerned drug therapy; few focused on lifestyle advice. The link with the underlying evidence was often poorly described and the available evidence was scarce.
Discussion: Our study showed that guidelines have limited applicability to patients with comorbid conditions. Most guidelines do not provide explicit guidance on treatment of patients with specific combinations of diseases. This may be due to lack of evidence as patients with comorbidity are often excluded from clinical trials. Guidelines should be more explicit about the applicability to patients with comorbidity. Tools on shared decision making and priority setting could be included to support self management.

O59

PILOTING A NEW SCOPING PROCESS – THE NICE GUIDELINE ON HIP FRACTURE

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Background: The National Clinical Guidelines Centre (NCGC) is a new centre formed from the merger of 4 smaller centres on 1st April 2009. We are commissioned by the National Institute of Health and Clinical Excellence (NICE) to produce clinical guidelines for the National Health Service in England and Wales. Our experience is that clinical guideline development can be very labour intensive and it is sometimes difficult to make accurate plans for the project resources required. Working to deadlines set by the commissioners of the project means that it is important to keep the work manageable.
Purpose: The aim of this study was to establish whether by changing the method for scoping the guideline we could improve the efficiency of clinical guideline production.
Methods: The NICE process manual *The Guidelines Manual* specifies how a scope should be developed for a NICE guideline. A new process was proposed with the aim of enabling us to plan the amount of work in the guideline more effectively and thus be able to achieve the tight timelines around guideline development set by NICE. The piloted process involved us recruiting the development group chair earlier in the process than previously, convening a scoping group that consisted of representatives from the developers, the commissioners (NICE) and the chair and holding a stakeholder workshop.
Results: The initial impact of the various aspects of the process change in this pilot case will be presented from the developers' perspective.
Discussion: We will discuss the advantages and disadvantages of this change to methodology and consider whether it achieves its aims of making the workload easier to plan and manage.

O60

CHOOSING TOPICS FOR CLINICAL PRACTICE GUIDELINES THINKING OF IMPLEMENTATION SINCE THE BEGINNING

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Background: In Brazil, healthcare delivery, utilization and financing is provided by a public-private mix. Since 2008, some protocols have been used to regulate the mandatory coverage in private healthcare. Health insurance companies accepted these protocols were very well, but they were focused just on coverage and not on assistance. Although it wasn't the best way to improve healthcare, it was the first step to introduce the clinical practice guidelines.
Purpose: This study is a descriptive analysis about how the regulatory agency can choose the topics of highest priority for the development of guidelines and how this process can contribute to overcome some implementation barriers and improve private healthcare.
Methods: The National Agency of Supplementary Health (ANS) established a collaboration term with the Brazilian Medical Association (AMB) to develop guidelines and monitor their implementation. A priority-setting process was implemented to identify the high priority topics for the guidelines and it was based on the participation of representatives of health insurance companies and medical specialty societies, and it was mediated by the regulatory agency in Brazil. ANS and AMB did some workshops with these representatives intended to find out what were their highest priority topics.
Results: We got 180 topics on this process, and then general criteria were established to prioritize the topics. After this, a table with the topics ordered by importance was done according to these criteria. Although we know this goal is difficult to achieve we propose some general principles to encompass the possible interests of all groups.
Discussion: The involvement of the actors that will use the guidelines on the process since its beginning is very important. We believe that, when the Regulatory Agency knows what is the demand of these actors, one of the most important implementation barriers could be knocked down.

O61

FINDING EVIDENCE AND GUIDELINES MADE EASY A Thesaurus and Software Application for Facilitating

Semi-Automatic Indexing of Evidence Summaries and Guidelines

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Introduction: Electronic knowledge databases are most effectively used by searching with search terms. However, most databases are poorly indexed, the indexing vocabulary does not include clinically relevant terms and does not recognize synonyms, and there is no hierarchy of search terms. As a result, all relevant information is not found.
Methods: A clinical vocabulary was developed, utilizing extensive log file statistics of existing evidence and guideline databases to empirically identify search terms that the indexers and users actually use, building a synonym vocabulary, and organizing simple and pragmatic hierarchies of the terms.
A web based software tool was developed that 1) compares words in an evidence summary or guideline document to the vocabulary, 2) counts the number of occurrences and applies weights (points) according to the location of the word in the document (e.g. heading, bottom line statement, and references got high scores), 3) arranges the found terms into meaningful hierarchic groups, 4) suggests which terms should be included in the index, and 5) assigns these a priority class (key or non-key). This is performed automatically, when an evidence summary or guideline in any structured format is processed by the application. Finally, the suggested index is provided for manual review and editing.
Results: The index terms suggested by the application match closely to those selected by an expert human indexer, and in some cases additional, highly relevant search terms are suggested by the application.
Conclusion: Indexing evidence summaries and guidelines can be effectively improved and searching guidance made more easy and reliable by using an empirically developed clinical thesaurus and an automatic indexing tool.

O62

RAPID HTA REVIEWS IN CANCER GUIDELINE DEVELOPMENT

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Objective: Cancer guidelines are currently developed through a collaborative process between oncology groups, HTA-doers (NOKC) and decision makers (Directorate for health). Treatment options for patients with cancer are rapidly evolving. To meet the need for rapid guideline update we have developed a programme to identify new and costly cancer interventions, and rapid HTA processes to assess efficacy, cost impact or cost effectiveness modelling.
Methods: Rapid HTA follow a standard EBM methodology with defined literature searches, quality assessment. Evaluation of cost impact, or cost effectiveness are assessed through NHS EED as well as the websites of other HTA insitutions.
Results: We have established a rapid HTA process to facilitate rapid updating of guidelines for new and costly cancer interventions. Guideline groups (medical oncologist) alert when there is a need for assessing new technologies, before these technologies are introduced into clinical practice. NOKC and representatives from the guideline group undertake a rapid assessment of clinical effectiveness, safety and cost implications within 1-2 months. At present we have completed three rapid reviews to update cancer guidelines:

- The use of Lapatinib in metastatic breast cancer.
- The use of Bevacizumab in metastatic breast cancer.
- The use of Relistor for opoid-induced constipation in patients who are receiving palliative care.

A rapid review on the use of PET/CT for non-small cell lung cancer is ongoing.
Conclusion: We have established a process for early and rapid assessment of new and costly cancer treatments. Collaborative network between guideline developing groups (oncologist) and NOKC are assessing new technology. The Directorate for health affairs use the rapid updates in their decision making process when updating recommendations in National cancer guidelines.

O63

INCORPORATING A SYSTEMATIC REVIEW OF QUALITATIVE STUDIES INTO CLINICAL PRACTICE GUIDELINES ON KIDNEY TRANSPLANTATION

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Background: The inclusion of patient perspectives in clinical practice guidelines can promote the applicability and implementation of guideline recommendations. However, most guidelines are still underpinned solely by quantitative trial evidence and there is little guidance on how to incorporate qualitative evidence into clinical practice guidelines.
Purpose: To synthesise and summarise qualitative research on the perspectives of kidney transplant recipients on medicine taking, and to translate and incorporate the findings into the Caring for Australasians with Renal Impairment (CARI) guidelines on prescribing medications for kidney transplant recipients.
Methods: We conducted a systematic review of qualita-

tive studies that explored the perspectives of kidney transplant recipients on medicine taking. Searches were performed in four electronic databases (to April Week 2, 2009) and reference lists of relevant articles.
Results: Five articles were included. The studies focussed on facilitators and barriers to taking medications as prescribed. Facilitators included: survival, fear of dialysis, routinizing, loyalty to clinicians, gratitude towards the donor, taking responsibility, avoiding embarrassment and guilt; and barriers included: healthcare structure, being away from home, unintentional forgetfulness, distressing side effects, unpleasant medication characteristics, complex and changing dosage schedule, poor access to pharmacy services. The findings were expressed as suggestions in 6 domains: patient-professional communication and shared decision making, clinician awareness and conduct, patient education, psychosocial care, resources for managing medications, and improving medication properties.
Discussion: Qualitative research on patient perspectives on medicine taking can help facilitate better patient-professional communication, improve clinicians' understanding on patients decision making processes in medicine taking, inform patient education and counselling programs, and identify ways to improve medications. Incorporating patients' perspectives into guidelines is needed to ensure that guidelines reflect patient-values and this can indirectly promote patient-centred clinical practice.

O64

QUALITY OF ETHICAL GUIDELINES AND ETHICAL CONTENT IN CLINICAL GUIDELINES

A Systematic Review of Guidelines on Medical End of Life Decisions

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Background: Frequently recommendations on clinical ethics are not integrated systematically into clinical guidelines, but rather offloaded into ethical guidelines. Unlike medical content in clinical guidelines, the quality aspects of ethical content or ethical guidelines itself have so far hardly been subject to any critical discussion.
Purpose: To assess quality of guidelines on medical end of life decisions. To evaluate needed modifications of AGREE-criteria applied to ethical content.
Methods: Guidelines on medical end of life decisions are identified through a systematic search in MEDLINE. Relevance of identified guidelines was evaluated by two reviewers using explicit criteria for inclusion and exclusion. All studies included were then assessed with the AGREE instrument. Difficulties in applying the AGREE instrument for ethical guidelines were noted.
Results: Of 92 guidelines identified, 51 were included. A majority of those guidelines on medical end of life decisions were assessed as qualitatively insufficient, whereas only a very few guidelines demonstrated that a high level of quality in accordance with the AGREE criteria is also possible for ethical guidelines. Difficulties in applying the AGREE instrument were experienced for some assessment criteria.
Discussion: The AGREE instrument is suitable for an assessment of the quality of ethical guidelines in many areas, but requires modification or adaptation in some subareas. The AGREE criteria should be observed as well as possible in developing ethical guidelines or in integrating ethical content in clinical guidelines. In particular, improved transparency about the theoretical foundation for developing ethical recommendations, the participation of interest groups, the way of dealing with dissent and the applicability of ethical recommendations is to be demanded. Modifications of the AGREE criteria are needed in the assessment of ethical justification procedures, among other things. Findings in our review support the claim that more research on quality assessment of conceptual and empirical ethics methodology is needed.

O65

THE NEED FOR ETHICS

Professional Perspectives on Work and Health

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Background: On a daily basis professionals working in occupational health and in social insurance medicine have to deal with situations that give ethical food for thought. For example, clients do not act on guideline-based medical advice for quick recovery; employees are absent from work due to problems in their personal lives; privacy constraints hinder effective solutions. Professional issues are also at stake. Communication with attending physicians fails, their professional judgements can be contradictory, or professional views about who is responsible differ.
Purpose: Conflicting interests, also in terms of moral values, seem to be inherently connected to occupational health and social insurance practice. These conflicts are sharper and more complicated than they are in regular healthcare. The purpose of this study is to describe the multiple loyalties, in particular towards one's client, the customer/employer, one's employer, and society as a whole, as experienced by the professionals themselves, from an ethical perspective.
Methods: We have interviewed in-depth 32 healthcare professionals, working in occupational health and social insurance, as well as in regular healthcare: family doctors and other health professionals.
Results: We analysed the attitudes and background beliefs of these professionals, in particular their prevailing

views on their professional role and their stance towards professional guidelines. Although most of the respondents acknowledge that professionals should judge consistently and uniformly, they differ in the way and to the extent in which they claim professional freedom, necessary to make their own balancing and independent judgements.
Discussion. We assess these different perspectives, the given justifications, and ask what possible contributions ethics can make. A promising solution might be the development of value-based guidelines (see parallel G-I-N-abstract 2009). This study is part of a larger project funded by the Netherlands organisation for health research and development (ZonMw).

O66

VALUE-BASED PARAGRAPHS IN GUIDELINES DEALING WITH ETHICAL PERSPECTIVES ON WORK AND HEALTH

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Background: On a daily basis professionals working in occupational health and in social insurance medicine have to deal with situations that give ethical food for thought. They differ in their objectives and perspectives from professionals that only treat the patients' medical condition. The predominant focus of the first group is the patients' functioning (in work and other activities). Therefore they often find it hard to balance other interests. Although professional considerations play a central role, it is less clear to what extent professionals have the freedom (autonomy) to interpret societal rules, ethical principles and professional guidelines in individual situations, as we have found in a qualitative study, based on in-depth interviews (see parallel G-I-N-abstract 2009).
Purpose: To develop and implement value-based paragraphs in guidelines, that deal with moral questions and support professionals in balancing conflicting interests in ethically sensitive situations.
Methods: In two interdisciplinary teams we explored the possibilities to insert ethical considerations and perspectives in two existing interdisciplinary professional guidelines, in a third team we explored the ethical issues involved.
Results: In a guideline on breast cancer the patient's preferences may play a greater role than is generally acknowledged, while in a guideline on depression we may wish to stimulate a closer cooperation between the health professionals involved. Value-based guidelines dealing with moral questions can indeed support professionals in ethically sensitive situations. In a third team we assessed the ethical issues, e.g. autonomy, privacy, professional judgement, justified expectations, financial interests and justice, and set up a moral framework that should guide professionals in implementing (new) value-based guidelines in the future.
Discussion: By being more explicit and transparent about inter-subjective values in professional judgement, we may improve the cooperation between professionals and the quality of decisions. Our findings and recommendations will be tested in practice and in an expert panel in the forthcoming months. This research is funded by the Netherlands organisation for health research and development (ZonMw).

O67

PROMOTING GUIDELINE-BASED INTERVENTIONS IN MENTAL HEALTH

Investigating a Model that Incorporates Organisational and Individual Theories of Change

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While there is a growing focus on evidence based practices (EBP) in the mental health field and an increased number of treatment guidelines available, there is evidence of significant variation in clinical practice. This is particularly true for Posttraumatic Stress Disorder (PTSD), for which there is a strong evidence base regarding effective treatment. Yet research in many countries indicates that most PTSD sufferers do not receive effective treatment. In Australia, only about 25 per cent of people with PTSD receive any component of evidence based treatment.
The current knowledge translation literature identifies generic barriers and incentives to adopting evidence based practices across the health system, but there is little information specific to mental health practitioners and limited research on how to promote EBP in the mental health field, where interventions are often complex. This study aimed to identify effective ways to promote change towards EBP in mental health services.
The study investigated how effectively recommendations from the *Australian treatment guidelines for adults with Acute Stress Disorder (ASD) and PTSD* have been implemented, using a model based on both organisational and individual theories of change in two key trauma population service areas: war veterans and survivors of sexual assault.
The study sought to identify factors influencing the uptake of EBP, to develop an implementation process based on these factors, and to trial this process across six trauma services. The effectiveness of the implementation model was investigated using self-report surveys and prospective recording of clinicians' practice.

While implementation strategies are often targeted towards individuals (e.g. information and education programs), the results from this study indicated that both organisational and individual factors influenced preparedness to use EBP. For example, organisational barriers such as resource pressures and the services' relationship to the guideline development process were as significant as individual barriers such as practitioner beliefs.
Practitioners participating in this implementation process, which was tailored to address specific organisational and individual barriers and incentives, and based on currently recognised theories of change, adopted EBP and maintained them at three months.

O68

APPLYING SOCIAL LEARNING THEORY AND A KNOWLEDGE TRANSLATION FRAMEWORK RESULTS IN GUIDELINES

Implementation, Change in Clinical Practice, Behaviours and Patient Outcomes

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Main goal:

1. Introduce theories and frameworks that can be applied to guideline implementation
2. Demonstrate an application of these theories/frameworks to Guidelines Implementation project planning
3. Appraise Guideline Implementation Tools.

O69

GUIDELINES AS KNOWLEDGE TRANSLATION

Activities at the Canadian Partnership against Cancer

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The Canadian Partnership against Cancer is a KT organization with an aim to accelerate the production of new knowledge and put into action what is already known in cancer control. As one of its priority areas, the Cancer Guideline Action Group (CG-AG) focuses on the optimal use of evidence using guidelines as the vehicle. The Knowledge to Action cycle (Graham et al 2006) is a guiding framework which can be used to describe the way the CG-AG is putting guidelines to work.
KT takes place within a context; two projects focus on enhancing or understanding this context. Through building a knowledge base of stakeholders, filling training gaps and profiling best practices in evidence development and implementation, the Capacity Enhancement Program is aimed at improving capacity in the Canadian context. The Communities of Practice (CoP) project seeks to understand the mileu in which KT occurs – through developing indicators to describe and evaluate CoPs as KT entities in activities focused on guidelines.
Three projects can be situated in the Knowledge to Action cycle – creation through to sustained use. CANADAPTE is developing a Canadian version of a methodology which places guideline adaptation within a broader context of implementing best practices. The Synoptic Reporting Tools project embeds guidelines at the point care via templates (checklists) for capturing cancer surgery data. The Guidelines, Resource Allocation and Public Engagement project is developing an educational tool to help decision makers better understand the complex interaction of factors involved in allocating resources and how evidence can be used in this process.
A large scale Canadian effort in knowledge translation using guidelines as leverage to improve quality in cancer control is taking place. Lessons learned and approaches used may be useful to other countries undertaking similar KT efforts.

O70

METHOD FOR THE DEVELOPMENT OF NATIONAL HEALTHCARE GUIDELINES IN AUSTRIA

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Background: In Austria there are two main sources of law concerning quality in health system: the *Gesundheitsqualitätsgesetz* (health quality law) and the so called *Vereinbarung gemäß Artikel 15a B-VG* (Agreement according to Article 15a of the Federal Constitution) which regulates organisation and financing of the healthcare system. Both postulate transsectoral, transdisciplinal and evidence based healthcare although there is no systematic approach for putting this aim into practice yet.
Purpose: A national strategy for guideline development shall be designed and published as an own guideline, the so called *Meta-Leitlinie*. This consistent method assures that internationally accepted rules of guideline development as well as national boundaries such as legal aspects and practice of healthcare delivery are considered in future guideline development.
Methods: To follow the principle of transsectoral and transdisciplinal guidelines an expert panel, consisting of main stakeholders of healthcare system as well as representatives of health professionals and patients, guides the whole development process and assures consensual and accepted outcomes. As this approach is novel, the whole process is proposed as work in progress.

Results: Experiences of the current development of national healthcare guidelines are integrated in the development of the *Meta-Leitlinie* and lead to the fact that both development processes influence each other. The practical guideline development provides the opportunity to learn from the practice while defining the methodical framework.
The first draft of the guideline is expected to undergo a national public consultation process in Summer 2009 and shall be discussed with some international experts until the end of 2009.
Discussion: Development and implementation of a national framework for guideline development in healthcare system is a great challenge and means the integration of different perceptions and requirements. The chosen way of integrating evidence and expertise as well as learning from practical guideline development work is challenging but seems to assure acceptance and practicability of the final results.

O71
INVOLVING CHILDREN IN GUIDELINE DEVELOPMENT
An Innovative, Multi-Method Pilot Project

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Aim: To pilot the involvement of children in NICE guideline development.
Objectives: 1. To gain children's views on the scope of the NICE Idiopathic Childhood Constipation clinical guideline and ensure children's priorities are included. 2. To consult with children on the guideline recommendations. 3. To test the feasibility and added value of involving children in guideline development.
How this was achieved: 1. Scope consultation with children. A 6-item open-ended questionnaire was developed by the guideline development group and administered face to face and by post to children attending clinics for treatment of constipation. Comments from 35 children were used to inform the scope of the guideline.
2. Guideline consultation: A stakeholder meeting with children will be held in October 2009 to gain children's views on the guideline recommendations. An on-line consultation is also planned using *Wikis* in order to provide an opportunity for a wider stakeholder consultation with children for those unable or less willing to take part in a meeting. This on-line consultation with children will be conducted alongside the usual NICE stakeholder consultation process.
3. Findings from the process and outcomes of stakeholder consultation with children will be used to inform future decisions regarding whether or not to directly involve children in NICE clinical guideline development, and how this can be undertaken.

O72
POOR AGREEMENT ON ASSESSING THE QUALITY OF CLINICAL PRACTICE GUIDELINES IN FRANCE

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Background: Since September 2008 in France, an independent committee of healthcare professionals and patient representatives (*Comité de validation des recommandations* (CVR)) critically assesses the final draft of clinical practice guidelines (CPGs) before publication.
Purpose: To estimate the inter-rater reliability among committee members in their assessment of CPG quality.
Methods: All CPGs submitted to the CVR between September 2008 and April 2009 were independently reviewed by at least 2 CVR members using a version of the AGREE instrument adapted to the French context. The instrument consists of 26 items ranked on a 4-point Likert scale. Of these, 25 are organized into 6 domains and one item gives the raters' global judgment on CPG quality. The decision on whether to approve the CPG is taken during a once-monthly meeting after a debate and a vote. Inter-rater reliability was measured by the intra-class correlation (ICC) coefficient and agreement between the raters' global judgment on CPG quality and the final decision by the Kappa coefficient.
Results: A total of 23 CPGs were assessed by the CVR and 12 were approved. The median number of raters per CPG was 4 (range: 2-6). Median inter-rater reliability was poor (ICC = 0.20; interquartile range [IQR]: 0.11 to 0.39) but varied across the domains. Agreement between median overall CPG quality and the final decision was moderate overall (kappa = 0.57, 95%CI [0.16-0.91]) but good in cases of consensus among raters (n = 17 CPG) (kappa = 0.76, 95%CI [0.37-1]). When there were no consensus between raters (n = 6 CPG), two were approved by the committee and four were rejected.
Discussion: Although the AGREE instrument we used is of value in identifying good quality CPGs, CVR members differed, sometimes substantially, in their assessments. Efforts to reduce variability may help better identify good quality CPGs.

O73
TEACHING GUIDELINE DEVELOPERS UP-TO-DATE GUIDELINE METHODOLOGY
The Canadian Thoracic Society Experience

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Background: The Canadian Thoracic Society (CTS) revised its guideline process to establish uniform and valid guideline production, using latest tools.
Purpose: We sought to evaluate the educational effects of a one-day introductory workshop on guideline tools, held for guideline-writers.
Methods: Guideline experts introduced each tool/instrument in a one-hour session consisting of lecture followed by informal questions. Questionnaires were completed by each participant immediately pre- and post- workshop. Six months later, a questionnaire was sent to attendees and CTS guideline developers who did not attend.
Results: Twenty guideline developers attended the workshop. Each was currently or had previously been involved in an average of 3 guidelines.
Pre-questionnaire: 17/20 (85%) had previously heard of the GRADE recommendations, 12/20 (60%) of the ADAPTE process, 14/19 (74%) of the AGREE instrument, 5/18 (28%) of the GLIA tool. On a Likert scale for knowledge/expertise (1-7; 1-no knowledge, 4-novice, 7-expert), mean ratings were as follows: articulating a research question (5.2 ± 0.9), using GRADE (3.8 ± 1.3), using ADAPTE (2.8 ± 1.4); using AGREE (3.1 ± 1.6).
Post-questionnaire: most participants indicated an increased level of comfort with these tools, but only 13/19 (68%) (GRADE), 11/19 (58%) (ADAPTE), and 11/19 (58%) (AGREE) felt that they could use these tools in the guideline process.
6-month post-questionnaire: Nine of 20 attendees (45%) and 23/63 (36%) other guideline developers responded. Attendees were more likely to agree with the statement that they *have the skills required to use* each tool than non-attendees (Likert scale 1-7; 1-strongly disagree, 7-strongly agree), as follows: GRADE (5.2 *vs* 4.1); ADAPTE (4.3 *vs* 3.2); AGREE (4.6 *vs* 3.8).
Discussion: Experienced guideline-developers had a low baseline knowledge of these tools. A one day workshop increased comfort, but a large proportion continued to rate their skills as inadequate. Given their complexity, repeated sessions may be required to empower members to use these tools independently.

O74
IMPRECISION
Limitations of Using GRADE to Rate the Quality of Evidence on Adverse Effects – A Case Study

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Background: The GRADE approach is a uniform ratings system that offers a transparent and structured process for developing and presenting summaries of quality of evidence for guideline development.
Purpose: To describe the use of the GRADE approach in a national guideline on neuropathic pain and to discuss the limitations of using GRADE to rate down the quality of evidence on adverse effects as a result of imprecision.
Methods: The GRADE approach was used to assess and summarise the evidence. Key outcomes, both desirable (benefit) and undesirable (adverse effects), were graded and summarized using detailed GRADE evidence profiles. The Guideline Development Group (GDG) was encouraged to discuss and draft evidence statements based on the evidence profiles, particularly through consideration of the balance between desirable consequences (benefit) and undesirable consequences (adverse effects) of the treatments. The identified limitations, as well as the discussion about the inconsistency of the GRADE approach in assessing harm (adverse effects) compared with benefit (positive outcomes) were documented.
Results: The use of GRADE provided a clear structure, direction and transparency in the process of evidence to recommendations. However, there were still limitations, specifically in the inconsistency of applying GRADE to rate down quality of evidence on adverse effects as a result of imprecision, compared with positive outcomes. A detailed discussion of the limitations and how it affected the utility of the GRADE approach will be presented at the conference.
Discussion: The GRADE approach is a useful tool in the development of guidelines. However, there are still methodological issues on how to assess imprecision and its applicability to both the desirable (benefit) and undesirable (harm) effects.

O75
CURRENT STATUS AND QUALITY OF CLINICAL PRACTICE GUIDELINE FOR LAST 10 YEARS IN SOUTH KOREA

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Background: In the last 10 years, development of Clinical Practice Guidelines (CPGs) has been constantly increased in South Korea. Many clinicians and health policy makers have a great concern about their quality. However there is little evidence on this topic. The objective of this study is to describe the current status of guideline development and to assess the quality of CPGs in Korea.
Methods: We did a cross-sectional study to describe guideline development in Korea between 2000 and 2009. We identified CPGs through search for specific websites, Korean electronic database and Medline and survey of academic societies. We applied explicit inclusion and exclusion criteria to select CPGs. Selected CPGs were assessed by 4 reviewers by using the AGREE instrument.
Result: We are in the process of survey of 500 academic

societies. We identified 123 potential CPGs by this time. The explicit inclusion criteria for selecting CPGs were an existence of explicit recommendation for helping decision making between healthcare provider and patients, and bibliographic references. The exclusion criteria were 1) narrative review, 2) guidelines targeted patients only, 3) manual for education, 4) simple translation of foreign guideline and 5) critical pathway. We are going to describe the current status of CPGs (ex: distribution of topics, development group characteristics, proportion of evidence based CPGs, clarity of recommendation) after we've identified total amount of CPGs. Then, 4 reviewers are going to assess quality of CPGs by using AGREE Instrument according to plan.
Conclusion: Our study was one of the first that systematically identified, selected and assessed the quality of CPGs in Korea. There was a constant increase of guideline development but their methodological quality was very limited. Our findings suggest that further efforts should be required to improve the quality of CPGs as much as possible in Korea.

O76
APPLYING GRADE TO INCLUDED STUDIES IN PUBLISHED COCHRANE REVIEWS
Experience from a National Guideline on the Pharmacological Management of Neuropathic Pain

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Background: Results, with or without meta-analysis, from the Cochrane Systematic Reviews are commonly used as part of the evidence base for clinical guideline development.
Purpose: To assess the applicability and practicality of applying GRADE to the included studies in published Cochrane Reviews.
Methods: Ten Cochrane Reviews were identified as relevant for a national guideline on the pharmacological management of neuropathic pain. The GRADE approach was applied to relevant evidence from the Cochrane Reviews when assessing and summarising the evidence for the neuropathic pain guideline.
Results: Several issues arose when extracting and adapting the findings from the ten Cochrane Reviews for the GRADE rating system in the neuropathic pain guideline. Overall, the findings and *Characteristics of Included Studies* tables from the Cochrane Reviews did not provide adequate or sufficient information for the use of the GRADE rating system. For example, there were inconsistencies in the level of reporting between reviews; for example, study design, study participants, quality rating, undesirable outcomes such as adverse effects. The final findings of the issues and how it affected the guideline development process will be presented in the conference.
Discussion: There are many technical and practical challenges in applying GRADE to included studies in published Cochrane Reviews. However, it is anticipated that as more Cochrane reviews use GRADE to assess and summarise included studies, such issues may become less problematic over time.

O77
COMBINING EVIDENCE FROM RANDOMISED CONTROLLED TRIALS AND NON-RANDOMISED CONTROLLED STUDIES WITH MODIFIED GRADE IN THE NOCTURNAL ENURESIS GUIDELINE

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Background: The National Institute for Health and Clinical Excellence (NICE) commissioned the National Clinical Guidelines Centre for Acute and Chronic Conditions (NCGC-ACC) to produce a guideline on the management of bedwetting in children. The bedwetting guideline is using a modified GRADE approach to analyse and present evidence. Nocturnal enuresis is a significant issue for several groups of children with disabilities – children with attention deficit disorder, and children with sickle cell disease for example. The guideline development group (GDG) requested the inclusion of both randomised controlled trials (RCTs) and non-randomised studies where RCT evidence was not available to ensure evidence from different population subgroups and safety aspects were considered in the guideline.
Purpose: To describe the analysis and presentation of combined RCT and non-randomised evidence for the bedwetting guideline,
Method: Currently NICE methodology states that guidelines should use modified GRADE to present evidence. To present the evidence, we will meta-analyse the RCTs and will conduct a separate meta-analysis of the non-randomised studies if the quality of the studies allows this.
Results: The initial sifting provisionally identified 40 non-randomised studies to be included in the evidence review. The following subgroups have been identified: children with monosymptomatic nocturnal enuresis, attention deficit hyperactivity disorder and sickle cell anaemia.
Discussion: With the more systematic use of modified GRADE across the NICE guidelines programme, the issues of combining different types of evidence are a core methodological issue for developers. It is not appropriate to combine RCT and non-RCT studies in a meta-analysis because of significant issues, such as increasing bias and heterogeneity. This posed problems for presenting the two types of evidence with modified GRADE. We will discuss the challenges which were found through two meta-analyses of RCTs and non-randomised studies and presenting these using modified GRADE, and how these were overcome.

O78

GUIDELINE ADAPTATION IN PRACTICE

Preliminary Results from the Evaluation of the Use of the ADAPTE Framework and Process

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Background: Developing and updating high-quality guidelines requires substantial time and resources. To reduce duplication of effort, enhance efficiency and translation of evidence into practice, the ADAPTE collaboration developed a framework composed of a Manual and a Resource Toolkit to guide research teams in the adaptation process of Clinical Practice Guidelines. An evaluation study was launched to test this framework and refine its components.

Purpose: To report the evaluation of the process and tools by the study participants.

Methods: Individuals and organisations interested in the use of the ADAPTE framework registered online and obtained the material (manual and toolkit). Then, along the process, they were invited to complete four questionnaires evaluating their opinions about the proposed methods and tools.

Results: Among 266 registered individuals coming from 226 organisations and 39 countries, 123 evaluated the Manual. Ninety-five (77%) of them were planning to use the ADAPTE framework. A majority of them found the ADAPTE process clear (81%), comprehensive (71%) and feasible (59%), and the Manual useful (72%). However, 21% found the ADAPTE process complex, 41% feared that they will not find appropriate and high-quality source guidelines and 32% feared to meet difficulties in selecting appropriate guidelines. Nevertheless, 88% thought that using the ADAPTE process would provide added value to the guideline development process.

Discussion: The ADAPTE framework and process generated a large interest among guidelines developers. The majority of the organisations/individuals concluded that it could be feasible and useful, although limitations in the process and the quality of source guidelines were expected. This evaluation will help improving the ADAPTE guideline adaptation process and the related support tools.

O79

REFINEMENT OF THE ADAPTE MANUAL AND PROCESS TO FIT THE NEEDS OF THE COCANCPG PARTNERS

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Background: One way to avoid duplication of clinical practice guideline (CPG) development is the adaptation of existing CPGs to a specific organisational and cultural context. Reasonable adaptation requires a common methodology which guarantees easy handling and acceptance by international partners. For the European project «Coordination of Cancer Clinical Practice Guidelines» (CoCanCPG), a common manual for CPG adaptation was developed from the work of the ADAPTE Collaboration.

Purpose: Tailoring the ADAPTE manual and process to fit the needs of the 18 CoCanCPG partners.

Methods: The development of the CoCan-ADAPTE manual included the following steps:

(1) Survey of partners' recognition of the ADAPTE manual

(2) Development of the 1st draft of the CoCan-ADAPTE manual

(3) Survey of partners' recognition of the CoCan-ADAPTE manual

(4) Pilot testing of the CoCan-ADAPTE manual by interested partners

(5) Development of the CoCan-ADAPTE manual

Results: The survey (written interview, July 2008) showed that a) not all partners develop or adapt CPGs, b) the ADAPTE manual was not known by all CPG developers, c) all partners have specific CPG development processes, d) most partners were optimistic about adaptation, e) proposals were made for changing the ADAPTE manual. According to results, it was decided to provide brief principles on modules not specific to adaptation and to change the order and content in those related to adaptation, including detailed description of process, tools and deliverables. Some results from CoCanCPG Working Groups were also included in the draft manual. Moreover, the partners could use their own in-house procedures to complete the modules not related to adaptation.

Conclusion: The ADAPTE manual was shortened and the order and content of modules and steps related to adaptation were changed to fit the needs of all CoCanCPG partners. Ongoing pilot testing will give more information about applicability and acceptability of the tailored manual.

O80

APPLICATION OF THE COORDINATION OF CANCER CLINICAL PRACTICE GUIDELINES IN EUROPE

ADAPTE Manual on Prostate Cancer CPG of the French National Cancer Institute

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Background: Within the transnational cooperation of Coordination of Cancer Clinical Practice Guidelines in Europe (CoCanCPG), joint activities are tested to avoid duplication of effort among partners. One method is based on the refinement of the ADAPTE manual (CoCanADAPTE Manual) and consists in the adaptation of partners' guidelines. Since two partners (NICE, ACCC) had an updated guideline on prostate cancer and such guideline was needed in France, INCa proposed to test the method on this localisation.
Purpose: The objective is to participate in the pilot testing of joint activities by developing a French guideline on diagnosis, treatment and follow-up of patients with prostate cancers.
Methods: The method used is experimental and based on the application of the CoCan-Adapte Manual. The Preliminary phase, specific Adaptation Modules and the Finalisation phase are planned. Related methodological tools have been included to facilitate the application of the modules process.
Relevant source guidelines published since 2007 were identified going on a list of evidence based Medicine Websites. Guidelines were assessed, using the AGREE instrument.
An update of equations from source guidelines by a systematic interrogation of the Medline® database is ongoing since January 2009. New evidences are retrieved with an Ovid® alert system since February 2009.
Results: Six sources guidelines have been identified and assessed. Based on Agree scores and because of a lack of methodology informations, one of the guidelines was excluded. In May 2009, 751 references were retrieved and 59 by Ovid alert. According to pre-defined selection criteria: 115 references will have to be appraised to update parts of the source guidelines during the adaptation process.
Discussion: The project of the prostate cancer guideline update is spread over the ongoing year. The next methodological steps are the review of the assessment modules by Working group, the datas extraction and critical appraisal of updated literature. An evaluation of the CoCanADAPTE manual is ongoing.

O81

SAVING MONEY, TIME AND PRESERVING QUALITY OF GUIDELINE

Italian SNLG Experience in Using ADAPTE

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Background: The guideline *Physiological pregnancy* has been developed by the Italian *National Guidelines System* (SNLG) adapting the guideline *Antenatal Care* issued by NICE in 2008.
Purpose: The primary purpose was to produce recommendations by taking advantage of what is already included in the guidelines recently issued by a number of organizations. The second purpose was to evaluate the feasibility of the ADAPTE approach.
Methods: A Guideline Development Group (GDG) – obstetricians-gynaecologists, guideline methodologists, epidemiologists and information specialists – has been involved in the first steps of the ADAPTE process: definition of the clinical questions, systematic search, and evaluation of global content/quality of the guidelines retrieved. Once the guideline was identified, the GDG assessed for each clinical question the update of the literature, the coherence between evidence and recommendations and transferability to the local contexts. Recommendations were then divided into three groups: *adaptable*, *amendable* and *adoptable*. The whole process was submitted to a multidisciplinary panel for approval. The panel was then also involved in adaptation and amendment of recommendations.
Results: *Antenatal Care* (NICE 2008) was the guideline selected, among the three selected from 2188 documents retrieved, on the basis of the high methodological quality, the up to date of the literature and its comprehensiveness. 44 clinical questions were reformulated since they were clearly grounded on local organisational and epidemiological contexts. 25 recommendations, even if considered adoptable by the GDG, were reformulated by the multidisciplinary panel. The recommendations of the *amendable* group were re-elaborated after re-performing the interpretation of the evidence or, when required, the evidence summary or the critical appraisal of the studies.
Discussion: Our experience indicates that ADAPTE approach may help saving time and reducing costs. The quality of the guideline was preserved working on the coherence between recommendation and interpretation of evidence as well as applicability of recommendations to local contexts. Difficulties were mostly related to the retrieval of original search strategies and their reproducibility.

O82

BENEFITS AND LIMITATIONS OF THE ADAPTE PROCESS FOR GUIDELINE ADAPTATION

The Experience of Developing a Venous Thromboembolism Prevention Guideline for Australian Hospitals

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Background: Venous thromboembolism (VTE) is the largest preventable cause of death in hospitalised patients in

Australia. Effective VTE prevention measures exist, but are under-utilised. In March 2008, the National Institute of Clinical Studies undertook to develop an Australian, evidence based VTE prevention guideline using the ADAPTE methodology.
Purpose: To describe the benefits and the limitations of ADAPTE in producing this Australian guideline.
Methods: The ADAPTE methodology was employed for guideline development. At commencement of adaptation, all phases of the ADAPTE methodology were to be followed. Following appraisal of four existing international VTE prevention guidelines, using the Appraisal of Guidelines Research and Evaluation instrument (AGREE), the 2007 NICE VTE prevention guideline was selected as the source guideline as it best fit the criteria of a high quality source guideline.
Results: It was expected that all steps of the ADAPTE process would be followed however as guideline adaptation progressed, only evidence tables could be adapted from existing guidelines, not recommendations. The set-up and finalisation phases took three months each, and guideline adaptation took ten months.
Discussion: In our experience, the benefits of ADAPTE methodology were the set-up phase; particularly advice on assessment of source guidelines, mapping existing guideline recommendations, establishing an organising committee and establishment of conflicts of interest and consensus processes. The limitations of ADAPTE were that little guidance was given on the development of recommendations once a source guideline has been identified. ADAPTE had limited value in areas where evidence did not exist (e.g. risk of VTE). ADAPTE advises an AGREE assessment to evaluate source guidelines, however AGREE does not evaluate the clinical content of the guideline. We found issues surrounding clinical content to be of great importance to guideline adaptation. The ADAPTE methodology could be strengthened by providing further advice in these areas.

O83
ADAPTING THE ADAPTE FRAMEWORK

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Background: The ADAPTE schema outlines a systematic approach for adapting guidelines to the local context. The Alberta Ambassador Program independently developed a similar framework.
Purpose: To explore the key differences between these frameworks to inform future iterations of the Ambassador guideline adaptation methodology.
Methods: The Ambassador Program formed a multidisciplinary partnership of clinicians, health technology assessment researchers, and other key stakeholders to construct an evidence based, provincial guideline on low back pain management for use by all professionals in community practice.
Results: The Ambassador Program differed from the ADAPTE framework as follows.

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

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

O84
ADAPTING GUIDELINES FOR IMPLEMENTATION
A Process Evaluation of Five Canadian Case Studies

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Introduction: Groups interested in evidence based practice are highly focused on guideline use as a means to fulfil this aim. Development of guidelines is not practical for local groups therefore effort has turned to adapting already developed guidelines. Under the auspices of the Canadian Partnership Against Cancer, groups were supported (using a methodology and facilitation) to work through their adaptation process. To understand the process these groups

engage in, the resources, expertise and the timeframe required, they participated in a 'natural experiment' allowing the research team to study them as they proceeded with guideline adaptation. Orientation and use of the ADAPTE methodology was a starting point with facilitation and support as required. The Knowledge to Action cycle (Graham et al 2006) served as our guiding framework.
Method: Organizational Case Series Design, process evaluation of 5 groups adapting already developed guidelines. The evaluation was formative i.e. improvements addressed as the process unfolded not waiting until the end. Purposeful sampling created a representative mix (topics areas, disciplines involved, scope of guideline adaptation e.g. local to pan-Canadian). Data collection included: audit (meeting minutes, teleconferences, contact with Partnership team etc.), trajectory tool, focus groups, field notes, and participant observation.
Results: Each group used the 24-step ADAPTE methodology. The tools and resources provided the basic roadmap but more was required. A new 'Call to Action' phase was added as well as combination and simplification of certain steps and additional tools developed. Substantial facilitation was involved including library science, logistic and project management support. Timeframe taken was ≥ 18 months. Data (quantitative and qualitative) will be presented reflecting the cases' process.
Summary: This process study highlights the complexity and challenges with guideline adaptation and aspects that may need to be supported through either internal or external facilitation. Recommendations and lessons learned will be presented.

O85
THE CONSULTATION PERIOD AS AN IMPLEMENTATION TOOL FOR GUIDELINES – METHODS AND RESULTS

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Background: The consultation period following the production of a first guideline draft is an important means of assuring guideline quality as well as implementation by generating a sense of ownership. Since the creation of the Programme for German National Disease Management Guidelines (NDMGs), seven NDMGs have gone through a standardized three month consultation period.
Purpose: Over the course of the years, we have increasingly received comments during the consultation period. In order to gain a better understanding of this development, we analysed the quantitative and qualitative results of the NDMG consultation periods over time.
Methods: We compiled the following information from the completed consultation periods for NDMGs published so far: 1) how many comments, 2) who sent comments, 3) what kind of comments (editorial, substantial), 4) when in the consultation process were the comments sent, 5) which implications did the comments have for the final version of the guideline.
Results: Public feedback during the consultation period of NDMGs has considerably increased over the years. The number of comments has more than tripled from the first to the last consultation period completed (from 26 comments to 94). The majority of comments come from an expert public and are relevant to central aspects of the guidelines. In particular, we are now receiving more comments from pharmaceutical companies and office-based physicians. Most comments are received towards the end of the three month period.
Discussion: Our results illustrate that the consultation period has developed into a widely accepted and relevant implementation tool for guidelines and indicate that public perception of the importance of NDMGs is growing. In the future we will work on how to make the consultation periods more effective and on encouraging primary care physicians to give more feedback on the clarity and applicability of the guidelines.

O86
LINKING EVIDENCE TO PRACTICE
Development of a Stroke and Transient Ischaemic Attack Care Bundle for Australian Emergency Departments

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Background: Stroke is Australia's second single greatest killer after coronary heart disease and is a leading cause of disability. Acute stroke is a medical emergency. Appropriate initial management can reduce disability and mortality resulting from stroke.
Purpose: To describe an approach to prioritise key guideline recommendations for implementation to improve clinical outcomes for patients presenting to emergency departments with stroke or TIA.
Methods: The National Health and Medical Research Council's (NHMRC) National Institute of Clinical Studies (NICS), in partnership with a clinical reference group and the Australian National Stroke Foundation (NSF), selected a care bundle approach to prioritise core recommendations from the NSF guidelines. A care bundle is defined as a group of several simple, evidence based recommendations that, when combined, define best care and significantly improve patient outcomes.
The prioritisation process was undertaken using a decision matrix where recommendations selected needed to be: based on sound evidence, where there is gap in practice, implementable in terms of resources, non controversial; and measurable.

The process has also involved extensive review from leading emergency clinicians and stroke specialists both internationally and nationally.
Results: The resulting stroke care bundle is made up of six core evidence based recommendations that are precursors to ongoing best practice management.
Documents developed to support the stroke care bundle include a comprehensive core document that provides introductory information, evidence summaries and an implementation guide, a poster and a clinician summary.
Discussion: Identifying context specific formats an important consideration to increase the uptake of guideline recommendations. Emergency departments are increasingly busy and are faced with a broad range of presentations that are often complex requiring information in formats that complement their practice environment. The bundle approach seeks to ensure all patients with the same condition are treated consistently according to best practice.

O87

DEVELOPMENT, VALIDATION AND IMPLEMENTATION PROCESS

For Clinical Practice Guidelines in the Supplementary Health in Brazil

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Background: The National Agency of Supplementary Health (ANS) established a collaboration term with the Brazilian Medical Association (AMB) to develop guidelines, spread and monitor their implementation. Its principal goal was the improvement of private health assistance by stimulation of taking health decision based on scientific evidences, the implementation of effective actions of promotion of health and prevention of illnesses and the rational use of techniques and medical technologies.
Purpose: The collaboration includes the development of guidelines based on scientific evidences. The result of this process was the elaboration of strategies for the adhesion of the actors involved on the elaboration and implementation of these guidelines and the validation of guidelines in terms of its applicability and its benefits inside of a model that helps in making clinical decision. The topics were selected from the main problems of health that affect the population that uses private health system in Brazil.
Methods: It were established stages of planning with well defined goals, as: definition of priorities; construction of scientific methodology, standardization of the guidelines; sensitization (support/discussion) by means of workshops with representatives of health insurance companies, medical specialty societies, AMB and ANS. Medical coordinators trained by the AMB did technical validation and ANS did the validation of implementation and monitoring. Moreover, the project includes the accomplishment of activities directed to health professionals, aiming at dissemination and adjustment of the use of guidelines.
Results: For health insurance companies the instruments developed will be a guide for the improvement of its processes and services. The patients, in turn, will have information to evaluate the quality of assistance received from companies and practitioners.
Discussion: These actions could improve the sector efficiency and qualify the assistance. Finally, all of Brazil's system of health could be improved, because practitioners work in both public and private sector.

O88

LONG-TERM ADHERENCE TO A LOCAL GUIDELINE

Lessons Learnt About Implementation

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Background: By means of a multifaceted implementation strategy a local evidence based guideline on post-operative body temperature measurements was introduced successfully, based on a 90% adherence rate as measured shortly after the release of the guideline. Because regression to old habits is common, we studied long-term adherence to this guideline seven years after its introduction.
Purpose: To identify barriers and facilitators associated with long-term adherence to be able to formulate recommendations for long-term implementation and the actual long-term adherence rate to the guideline.
Methods: We organized several structured focus group meetings for nurses (n = 47) and a structured plenary meeting with an interactive questionnaire for all clinicians (n = 42) involved. Furthermore we retrospectively scrutinized medical and nursing files (n = 102) to calculate guideline adherence.
Results: Facilitators for long-term adherence were belief in the advantages of the guideline and staff support. If staff support was present, fewer deviations (40%) from the guideline were observed than without staff support (83%).
Barriers were unawareness of the guideline by (young) residents as opposed to staff members and distrust of own clinical judgment by nurses as well as clinicians.
The 102 patient records from 4 surgical wards totaled 1226 body temperature measurements. According to the guideline, an indication was present in 679/1226 (55%) of the measurements. Overall guideline adherence rate was 617/1226 (50%).
Discussion: A multifaceted implementation strategy and successful short-term adherence is no guarantee for long-

term guideline adherence. Factors influencing long-term adherence appeared to be similar to those known for short-term adherence. To facilitate long-term adherence, leadership from staff is needed on every ward and indicators should be developed to monitor changes needed to accomplish better adherence. Moreover, guidelines should be standard material to be incorporated in the settle-in period, standard education, and knowledge transfer for as well residents as for nurses.

O89
HEALTHCARE PROFESSIONALS' JOB Characteristics and Attitudes Towards Clinical Guidelines

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Background: Many challenges are faced when introducing clinical guidelines into routine daily practice. These may include characteristics of guidelines and/or individual practitioner's social context of care provision or environment. Previous studies have shown that job characteristics and organisational context influence the opportunities to follow the guidelines as well as the attitudes towards them.
Purpose: The aim of the study was to describe and compare physicians' and nurses' job characteristics and attitudes towards clinical guidelines. We also examined the mediating and moderating effects of job characteristics on the relationship between profession and attitudes.
Method: The data (n = 687) were collected by an electronic survey between November 2006 and May 2007 in two hospital districts and one rural primary care centre in Finland. Attitudes towards guidelines were assessed by the Attitudes towards guidelines scale (Elovainio & al. 1999) and job characteristics with the Job Demand-Control model by Karasek (1979). The professionals' experiences on lack of social support and problems with information technology were examined.
Results: In general, the professionals' attitudes towards clinical guidelines were positive. Job strain, lack of social support, and problems with information technology were associated with negative attitudes toward guidelines. However, there were differences between professions. Nurses with low decision latitude and heavy job demands considered attitudes in the organisation more negative than physicians with heavy job strain. In addition, nurses having more often problems with information technology reported lacking individual and/or team abilities to use guidelines.
Discussion: Healthcare organisations may need to consider the impact of job characteristics and work community on staffs' attitudes toward clinical practice guidelines. Attention should be paid especially to those who consider their work stressful.

O90
INTEGRATING GUIDELINES INTO A LARGER QUALITY FRAMEWORK
The Case of Cancer Care Ontario's Program in Evidence based Care

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Background: The Program in Evidence based Care (PEBC) is the practice guidelines initiative of Cancer Care Ontario (CCO), the advisory body to government on all matters related to cancer. The PEBC develops guidelines aimed to improve clinical practice and influence system and policy decisions. It is one component of a larger integrated system aimed to improve quality of cancer care. The purpose of this presentation will be to show how PEBC guidelines are implemented in this integrated system to achieve this mandate using colorectal cancer as an exemplar.
Methods and Results: The PEBC guidelines are used (i) to facilitate the development of communities of practice of clinicians and system leaders who are receptive to evidence, who understand the role, value and limitations of evidence, and who can apply evidence to decisions; (ii) as a foundation to create quality indicators that are used to measure performance, monitor adherence, and publicly report on the cancer system; (iii) as tools to facilitate restructuring of cancer services at a system level to improve safety and quality of care; (iv) as required components in policy decisions regarding access to and funding for treatment options in our publicly funded system; and (v) as levers in contract negotiations with institutions and funding models with professional bodies.
Conclusions: Integrating guidelines into a larger system of quality improvement has the potential to have a direct and measurable impact on the patient experience and on patient outcomes. Guidelines are necessary but not sufficient tools to improve a healthcare system.

O91
MAKING THE CASE FOR CROSS-POLLINATION BETWEEN QUALITY MEASURES AND CLINICAL PRACTICE GUIDELINES

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Background: Measures of healthcare quality are one derivative product of evidence based clinical practice guidelines. In an ideal world, process and outcome healthcare quality measures are derived from recommendations presented in rigorously developed guidelines. In reality, even within the same organization, quality measures and guide-

lines often follow separate and distinct development tracks with few, if any, intersections. As a result, neither may reach its full potential in terms of dissemination, implementation and use. In addition, guideline recommendations may be problematic (i.e., ambiguous and/or incomplete) when used as the basis for specifying process or outcome measures.
Purpose: To present specific examples of organizations that develop both clinical practice guidelines and quality measures, examine their development processes, and glean information that might be applicable to the broader international guideline and quality measurement community.
Methods: The development processes of U.S. and non-U.S. organizations participating in both the National Guideline Clearinghouse (NGC) and National Quality Measures Clearinghouse (NQMC) that create both guidelines and related quality measures will be studied. The composition of the guideline and measure development committees, development methods used, and connections between the guidelines and measures are areas of interest.
Results: Common attributes/processes/methods of development will be reported along with any apparent patterns of similarity or difference.
Discussion: The guideline and quality measures development communities could both benefit from some degree of cross-pollination. As sponsor of the NGC and NQMC, the Agency for Healthcare Research and Quality is in a unique position to review the development of both guidelines and quality measures to provide meaningful insight.

O92
DOES BELONGING TO A REGIONAL QUALITY NETWORK INFLUENCE GUIDELINE IMPLEMENTATION AS MEASURED BY QUALITY INDICATORS DERIVED FROM GUIDELINES?

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Background: Since 2008, all French acute care hospitals have begun to collect retrospective data on 6 quality indicators (QIs) relating to post-acute phase medical management of patients with myocardial infarction (MI). The QIs were developed by extracting quality criteria from clinical practice guidelines and then selecting those criteria needed to construct the QIs.
Purpose: To determine whether hospitals belonging to regional quality networks (RQNs) are better at adopting guidelines and thus have better QI results than those that do not belong. RQNs have a wide variety of activities (provision and creation of quality assessment tools, assisting in practice appraisal, developing and implementing QIs, etc).
Methods: A total of 649 hospitals collected data on 6 QIs for 60 random hospital stays (principal diagnosis: MI). Hospitals with < 30 stays/year for MI were excluded (n = 374). RQN hospitals and non-RQN hospitals were compared using regression models, adjusted for the type of hospital and number of beds.
Results: There was no significant difference between RQN hospitals (n =102) and non-RQN hospitals (n = 173) (total of 14,966 stays) for any QI ($p > 0.05$). (Q1: Aspirin/clopidogrel prescription at discharge, Q2: β-blocker prescription at discharge, Q3: left ventricular ejection fraction measurement, Q4: prescription of statin at discharge (and monitoring statin use by lipid lab test), Q5: advice on diet, and Q6: advice on stopping smoking).
Discussion: Belonging to a RQN had no significant impact on guideline implementation. However, the extent to which a RQN is involved in fostering guideline adoption is difficult to establish as there is no standardized information on RQN missions and work programmes. This problem could be circumvented by including items on RQN activities in the assessment grid. Measuring the compliance of physicians with the guidelines that underpin the QIs by another method might also prove of interest.

O93
RECOMMENDATIONS FOR CREATING A STRATEGIC APPROACH TO SUSTAINABLE GUIDELINE DEVELOPMENT

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Background: The currency of clinical practice guidelines is becoming increasingly difficult to maintain due to the fast-paced environment of evidence based care. National Breast and Ovarian Cancer Centre (NBOCC) is a leader in guideline development for oncology in Australia. To ensure the sustainability and currency of NBOCC guidelines in the future, a review of guideline development methodologies was undertaken.
Purpose: To develop and implement recommendations for a strategic approach to guidelines.
Methods: Recommendations were developed based on a multifaceted review of guideline development methodologies. Specific components of the guideline development process were addressed, including topic identification and prioritisation, collation of evidence, stakeholder engagement and decision making, quality assurance, publication and presentation, dissemination, updating and maintenance of currency, and implementation.
Results: Twenty-two recommendations were made, covering the full spectrum of the guideline development process. Significant recommendations included:

(a) Improved documentation, such as a new guideline manual to ensure that existing high quality processes are transparently documented.
(b) A structured approach, such as ASCO's 'signals'

method for review and updating guidelines to maintain currency.
(c) Investigation of new technologies, such as the wiki platform for updating guidelines.
(d) Extension of the currently high level of consumer involvement in the guideline process, to allow community input into topic identification and prioritisation via the NBOCC website.

Discussion: Implementation of these recommendations provides a strategic framework in which NBOCC can continue to work to achieve best practice in the field of guideline development. Many of these recommendations are easily implementable at the local level, while other recommendations address technological innovation for implementation in the longer term.

O94

VIRTUAL HEALTH CHECK IN EVALUATING THE ADHERENCE TO CLINICAL GUIDELINES

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Background: Guideline producers should be interested in how their recommendations are followed in clinical practice. Objective and practical tools to analyze this are needed.
Purpose: The aim of this study was to test, whether the virtual health check (VHC) as part of the decision support (www.ebmeds.org) integrated with an electronic health record (EHR) can be utilized in evaluating the adherence to diabetes-related clinical recommendations.
Methods: The EHR data from one Finnish primary care health centre with a population of 16.000 were analyzed against 100 various decision support rules, out of which 15 were associated with diabetes. A quality measurement (QM) index (the proportion of patients treated according to the recommendation out of all clinically relevant patients) was calculated for each recommendation. Thus, a QM of 1.0 meant that every relevant patient was treated in accordance with the recommendation, whereas a QM of 0.0 indicated that no patient was treated as recommended.
Results: The virtual health check technology allowed the analysis to be carried on during one night, thus not disturbing the clinical practice, neither requiring extra input by physicians or nurses. Altogether 12/15 (80%) decision support rules were relevant for at least 50 patients in the population. The QM varied from 0.12 (screening for diabetic nephropathy in type 2 diabetes) to 1.0 (ACE inhibitor or sartan for diabetic patients with microalbuminuria; LDL-cholesterol check for patients with type 2 diabetes; Glucose test for patients with hypertension, dyslipidemia, or cardiovascular disease).
Discussion: VHC is a promising tool for measuring the adherence to clinical guidelines. Some of the lowest QMs in this study can be explained by missing data in the EHR. We are currently running an RCT to follow up the VHC results, when physicians and nurses are either getting relevant decision support reminders or not getting them.

O95

INCREASING PUBLIC ACCESS TO CLINICAL PRACTICE GUIDELINES

For Rheumatoid Arthritis and Osteoarthritis

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Background: Four million Canadians, 15 years of age or older, report arthritis (2001). Arthritis is a leading cause of disability. The use of 'influential patients' is one strategy for disseminating clinical practice guidelines (CPG) to other patients.
Purpose: This project evaluated the impact of 'influential patients' with arthritis and media on dissemination and adoption of arthritis self-management strategies.
Methods: Phase I: Meta-analyses of physical rehabilitation interventions for rheumatoid arthritis (RA) and osteoarthritis (OA) were used to develop 6 lay self-management guidelines. Phase II: Knowledge Translation activities: tool development, online educational materials, 2 interactive workshops. Workshop 1 (WS1) was delivered by faculty to 'influential patients' from Canadian patient organizations. In WS2, selected trained patients delivered the same content to a new group of patients. Attendees were assessed at baseline, post-workshop and 3 months follow-up. General public was invited to use an online learning module. Participants were assessed on knowledge; intent to use and application of arthritis self-management strategies; self-efficacy measured on a scale from 1 to 10; and their dissemination activities were tracked.
Results: 23 'influential' people with OA or RA attended WS1. 9/23 was trained to deliver workshop content to 27 new participants. 21/23 (WS1) and 25/27 (WS2) completed post-workshop surveys. 3-month follow-up surveys showed improved knowledge and increased use of Transcutaneous Electric Nerve Stimulation, Tai Chi and shoe inserts ($p < 0.01$; n = 49). Self-efficacy improved for both groups. Information was shared by WS1 participants with: family members, friends and their organizations. They reported being better able to meet the educational needs of people with arthritis ($r17 = 0.68$, $p < 0.01$) and to access up-to-date resources ($r21 = 0.62$, $p < 0.01$). 140 people logged on to the public survey site and completed baseline surveys.
Discussion: This innovative knowledge translation project demonstrates the positive impact of influential patients and the media on the use and dissemination of arthritis self-management strategies.

O96

GETTING A GRIP ON ARTHRITIS©

Evaluation of a National Community-Based Educational Intervention to Improve Primary Healthcare Management of Arthritis: Impact on Patients

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Background: Healthcare providers (HCP), adults with arthritis, health services researchers and government representatives designed this evidence based program based on a pilot study and published arthritis clinical practice guidelines.
Purpose: Evaluate patient outcomes of a national community-based educational intervention designed to increase capacity of HCP teams to manage arthritis.
Methods: The multi-faceted intervention consisted of 30 workshops for HCP (physicians; nurse practitioners) on osteoarthritis (OA) and rheumatoid arthritis (RA) across Canada, educational materials for patients and providers and 6 months follow-up reinforcement for providers working in HPC facilities. The content integrated arthritis best practices. 26 of 219 participating HCP facilities consented to evaluate the impact of the intervention on their patients. Questionnaires were mailed to patients with diagnosis of OA or RA pre-intervention and at 6 and 12 months post-workshop. Questions included demographics, arthritis symptoms and disability, best practices recommendations by providers and use of best practices.
Results: Patient questionnaires competed at: baseline, (n = 931); 6 months (n = 567); 12 months (n = 370), with 366 completing at all 3 time points. Three-quarters of patients were female, mean age 66 years. Half of respondents had OA, 20% had RA and the remaining had other diagnoses, including fibromyalgia. Respondents at all 3 time points reported less pain and disability, worse self-reported health and higher fatigue than non-respondents on follow-up. At 6 months, patients reported increases in walking ($p < 0.05$) and other types of aerobic activity ($p < 0.05$), which were sustained at 12-months. There were decreased referrals to specialists ($p < 0.05$), but no change for other HCPs. There were also increases in provision of contact information for arthritis community support services ($p < 0.05$). There were no changes in recall of HCP best practice recommendations or changes in pain, fatigue or disability.
Discussion: This program enhanced patient use of best practices for arthritis self-management, particularly increased participation in exercise.

O97

A COMMON TOOLKIT FOR HEALTH PROFESSIONALS AND PATIENTS

Multidisciplinary Protocols for French Primary Care Trusts

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Background: In the context of a recent French law (HPST), the HAS promotes the use of a collaborative protocol within French Primary Care Trusts (PCT).
Purpose: To improve practice in PCT with a toolkit facilitating the implementation of guidelines by healthcare professionals.
Methods: Ten themes (e.g. hypertension, diabetes, anti-vitamin K, vaccinations, infant bronchiolitis, breast-feeding, venous leg ulcer) have been selected for their importance in terms of multidisciplinary management and improvement of the health quality. A multidisciplinary working group has been assembled, composed of approximately 20 healthcare professionals (GP, nurses, midwives, pharmacists, physiologists) in PCT. The toolkit is dedicated to the follow-up of the above themes and targets both health professionals and patients. The working group identified key messages from guidelines (published by HAS, and other agencies) with the help of a guideline analysis software (G-DEE). The key messages serve as a basis for the generation of reminders. Two specific tools have been created and evaluated in PCT: a computerized tracking sheet for professionals and a patient booklet. All professionals completed criteria specific to their practice. The following categories have been identified: results (clinical and complementary exams, anamnesis), therapeutic purpose and therapeutic strategy. Specific values for criteria trigger the generation of appropriate reminders. Patients information documents are created or re-used from national agencies. A test group checked the validity and usability of this toolkit during the follow-up for real patients.
Results and discussion: Acceptability and feasibility of this toolkit have been assessed in practice. The validation of reminders and tools requires 6 months, the implementation for a new protocol, 1 year, and the assessment to modify professional team behaviours, 3 years. For this approach to be generalized in PCT, it would be necessary to integrate it into healthcare management systems.

O98

QUALITY MANAGEMENT FOR PATIENT GUIDELINES

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Background: The quality of patient guidelines has a great influence on their implementation. Patient guidelines therefore have to meet high quality demands among which are – besides the observation of formal standards – evidence

based recommendations, a consequent consideration of patient needs and comprehensibility.
Purpose: to present measures of quality management for patient guidelines.
Methods: Measures of quality management for patient guidelines are: (1) Patient participation in the development process according to a defined methodology, (2) transfer of evidence based recommendations from clinical guidelines, (3) the provision of formal demands for good patient information, (4) the consideration of patient experiences, (5) a peer review by the experts of the clinical guidelines, (6) a three-month consultation period with a structured feedback system and (7) quality assessment after publication by an external institution (German Cochrane Centre) based on the quality criteria of the DISCERN instrument (www.discern.co.uk).
Results: According to the quality assessment of the German Cochrane Centre, all patient guidelines have been proven to be of high formal quality. The quality management measures developed for the National Diseases Management Patient Guidelines have been adopted by other guidelines programs in Germany (e.g. the national guidelines program for oncology). The defined demands on quality for patient guidelines furthermore provide a basis for a national standard of good patient information (good practice patient information).
Discussion: Feedback indicates that patient guidelines of high quality in form and content are more accepted by physicians and recommended to patients, thus making high quality patient guidelines an important implementation tool for clinical guidelines. Short versions of patient guidelines such as waiting room information leaflets may advance their implementation.

O99

WHY IS THE INVOLVEMENT OF PATIENTS IN CLINICAL PRACTICE GUIDELINES IN MENTAL HEALTH SO NECESSARY?

Our Experience with a CPG of Insomnia in Primary Healthcare

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Background: An increasing number of experiences involving patients in CPG shows advantages. This is especially important in pathologies such as insomnia whose burden of disease is not so much affected by mortality but by a reduced quality of life, with a great social and economic cost for the health systems. Several studies have proved an association between insomnia and a worsening of general health and bad health auto-perception.
Purpose: To involve patients in a CPG of Insomnia in order to explore their experience, values and preferences related to their disease.
To contextualise CPG recommendations taking into account these patient views.
Methods: A qualitative research was conducted with patients with insomnia and their carers, general practitioners as well as specialists (neurophysiologists, psychiatrists and psychologists). Focus groups and in-depth interviews were conducted with the patients. As for the health professionals, in-depth interviews and «participant observation» techniques were used. Two insomnia patients were incorporated in the development group and an insomnia patient association was taken into account in the external review process.
Results: Participation of patients in the development group of the CPG was achieved. It helped delimit the scope and aims as well as to elaborate the research questions. In addition, this helped draft CPG recommendations and design a managing algorithm in primary care specifically with regard to the treatment: psychoeducation, sleep hygiene education, psychological and pharmacological treatment. Finally, a CPG version for patients was produced.
Discussion: Our Insomnia CPG was developed with the involvement of two patients, one patient association and a patient focus group. Inclusion of patients in CPG development is an added value, especially for guides on mental health pathologies. Patient Oriented Outcomes are as relevant as Disease Oriented Outcomes. The success of CPG implementation is better guaranteed with the support of a patient association.

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LECTURES

L1
TRANSNATIONAL COLLABORATION ON GUIDELINE DEVELOPMENT
The Way Forward!

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Background: CPGs are an important tool to enhance the quality of care. However, similar strategies are undertaken to achieve similar goals. CoCanCPG, as a transnational collaboration, aims to reduce duplication of effort. To put collaboration in practice, several joint activities between guideline developing organizations have been set up. This lecture reports on the exploration of a collaboration be-tween institutes from Belgium (KCE) and The Netherlands (ACCC), with the gastric carcinoma guideline chosen as a case study.
Purpose: To improve guideline development, gain trust and build a basis for sustainable collaboration.
Methods: A stepwise approach is undertaken to retrospectively compare the guideline development procedures and outputs.

1. Comparison of methodologies
2. Gastric carcinoma CPG chosen as case study
3. Comparison of key questions
4. Comparison of syntaxes used
5. Comparison of evidence tables
6. Comparison of recommendations
7. Inquire professionals opinion on comparison study

Results: The comparison of the guideline developing methodologies revealed an extensive coherence; no barriers for collaboration were detected. The case study was performed on two key questions of the gastric carcinoma guideline. The search selection criteria only differed on timeframe and study type. Explanations for the differences in articles synthesized in the evidence tables could be found in the sensitivity or specificity of the search. The vast majority of the recommendations were similar or highly comparable.
Discussion: The case study provided insight in each other's guideline development procedures. Both guideline development protocols were adjusted based on experiences from the other partner. This, combined with the outcome of the study, created a solid basis for future joint activities. All CoCanCPG joint activities will be evaluated during the summer of 2009, the results of these surveys will be part of the CoCanCPG vision for sustainable collaboration.

L2
AGREE II
Advancing Development, Reporting and Evaluation of Practice Guidelines

Melissa BROUWERS, Julie MAKARSKI, Michelle E. KHO, George P. BROWMAN, Jako S. BURGERS, Françoise CLUZEAU, Dave DAVIS, Gene FEDER, Beatrice FERVERS, Ian D. GRAHAM, Jeremy GRIMSHAW, Steven E. HANNA, Peter LITTLEJOHNS, Louise ZITZELSBERGER
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P.L.: National Institute for Health and Clinical Excellence. London. United Kingdom
L.Z.: Canadian Partnership Against Cancer. Ottawa. Ontario. Canada

Background: Two studies were conducted to improve the development, reporting, and evaluation of practice guidelines.

Study 1.

Purpose: To conduct an assessment of a new scale, evaluate the performance of the AGREE Instrument and a generic rating scale (GRS), and assess usefulness of and improvements to the instruments.
Methods: 156 participants (clinicians, developers/researchers, policy makers) read a guideline, assessed it with the AGREE and GRS (condition 1) or the GRS alone (condition 2), and completed a series of questionnaires evaluating the usefulness and feasibility of the instrument(s) and required improvements.
Results: All AGREE items and GRS items were rated as useful by participants and *no* differences emerged as a function of user type. All AGREE domains, except editorial independence, predicted users' endorsement of and intentions to use a guideline. The act of applying the AGREE did *not* influence GRS, endorsement or intention to use scores.

Study 2.

Purpose: To test the validity of the draft AGREE II and evaluate the draft User's Manual.
Methods: High and low quality guideline excerpts of draft AGREE II items were randomly assigned to one of two study packages. One quality version of each item was reflected in each package. Thirty participants were randomly assigned to one of the packages. Participants reviewed and rated the guideline content using the draft AGREE II and completed an assessment survey.
Results: Content designed to be of high quality was rated higher than content designed to be of low quality; in 18 of 21 cases, the differences were statistically significant. The Manual was rated by participants as appropriate, easy to use, and able to assist in differentiating good quality guidelines from poor quality guidelines.

Conclusions: The results of these studies led to the final version of the AGREE II, a new international standard in guideline development, reporting, and evaluation.

L3
THE NHS EVIDENCE ACCREDITATION SCHEME

Gillian LENG, Mark SALMON, Paul CHRISP
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Background: NHS Evidence, a service provided by NICE, was launched on 30 April 2009 and provides access to a range of information types, including clinical guidelines, primary research literature, practical implementation tools and policy documents. To achieve its aims of providing access to authoritative clinical and non-clinical evidence and best practice, NHS Evidence provides a formal accreditation scheme for defined categories of information such as clinical guidelines.
Purpose: The purpose of the scheme is to drive up the quality of information for health professionals. The concept of the accreditation scheme is based on a need to see standards of information being raised so that practitioners can have confidence in using evidence to develop health and social care services, and improve patient care.
Methods: An accreditation scheme was developed to meet the NICE core principles of transparency, inclusiveness, independence, timeliness and regular review.
Results: The accreditation scheme ensures that:

- Standardised criteria and assessment processes (based on the AGREE instrument) are used
- Decisions are based on the rigorous assessment and analysis of supporting information supplied by the information producer against defined criteria
- The process is overseen by an independent Advisory Committee that makes decisions on behalf of NICE
- Input from external experts and healthcare professionals forms part of all processes
- Patients and carers have the opportunity to be involved
- Sources and not information itself are accredited
- Accreditation decisions and the accreditation process manual are regularly reviewed
- Accreditation lasts for three years and will allow the source to use the NHS Evidence accreditation mark

Discussion: Initially, accreditation will cover clinical guidelines, referral guidelines, public health guidelines, policy guidance, clinical summaries and best practice. In the longer term accreditation processes will be developed for other types of information, for example systematic reviews and care pathways.

L4
A NATIONAL MULTIDISCIPLINARY GUIDELINE PROGRAMME FOR YOUTH CARE: Prioritization, Methodology and Implementation

Haske van VEENENDAAL, Flip DRONKERS, Jessica van ROSSUM, Ilse RAATS
H.V.V., I.R.: Dutch Institute for Healthcare Improvement CBO. Utrecht. Netherlands
F.D., J.V.R.: Netherlands Youth Institute. Utrecht. Netherlands

Background: In 2009, several stakeholders (professionals, clients, government) started with the set up of a national multidisciplinary guideline plan for youth care in The Netherlands. Before starting with the development of guidelines, the parties organised several focus groups who decided on a methodology for prioritization of topics, the methodology of guideline development and maximal enhancement of the implementation of the guidelines to be developed. Professionals, clients, scientists and guideline developers participated in the focus groups and additionally a literature study was carried. The area of youth care is on the one hand characterized by significant variation in the approach between professionals, so guidelines can be an effective instrument to decrease this variation. On the other hand, youth care relies mainly on a long history of diagnosing and treatments for which there is little scientific evidence. This raises questions about which guideline methodology should be used and which innovative elements are to be integrated in national guideline development program for youth care.
Main goal: To discuss the approach and principles, including the prioritization of topics, the methodology of guideline development and implementation, of setting up a national multidisciplinary guideline programme for an area in which high quality studies are scarce.
Description: This area is characterized by significant practice variation between professionals. Guidelines can be an effective instrument to reduce variation and to promote a uniform approach. A challenging aspect is to deal with little scientific evidence, which raises questions about which guideline methodology should be used. Participants' input will be used to further shape the multidisciplinary guideline programme for youth care in The Netherlands.
Target group: Guideline developers, patient representatives, policy makers, healthcare managers and payers.

L5
EVIDENCE BASED MANAGEMENT OF PEOPLE WITH CHRONIC CO-MORBIDITY

Klara BRUNNHUBER, James WOODCOCK
K.B., J.W.: BMJ Publishing Group Ltd.. London. United Kingdom

Background: Most people have more than one condition when seeking care for chronic diseases. Despite this, most layers of evidence (clinical trials, systematic reviews and clinical guidelines) are predominantly designed for people with one condition, making it difficult to provide evidence based healthcare for the large proportion of patients with chronic co-morbidities.
Purpose: We aim to explore this multifaceted issue from the perspective of reviewers and guideline developers whose goal is to assess the effectiveness of interventions in people with chronic co-morbidity. We will also be intro-

ducing a novel co-morbidity framework for prioritising clinical questions around co-morbidity, both for research and clinical management.
Methods: Based on previous work around major disease combinations, we illustrate the specific challenges and a proposed methodology for systematic reviews in people with more than one chronic condition. We also present a framework for researchers to identify high priority disease combinations, and to guide clinicians' thinking on how diagnosis or treatment may change in view of chronic co-morbidity.
Results: Co-morbidity complicates patient management in a variety of ways, by affecting diagnosis, therapy, and follow-up. Moreover, co-morbidity has implications for all stages of the guideline and review creation process, including the selection of clinically important outcomes, methods used for search and appraisal of the literature, evidence rating and synthesis, and the formulation of recommendations. We will discuss the challenges of systematic reviewing for this population and propose solutions on how to deal with problems such as indirect or inconsistent evidence. Our framework provides a structured approach to co-morbidity for researchers and clinicians alike.
Discussion: Developing systematic approaches for searching, appraising, synthesising and applying the evidence base for people with chronic co-morbidity is a crucial global priority. Currently used frameworks and processes are likely to benefit from modification when applied to this ever expanding population.

L6

TWELVE YEARS OF CLINICAL

Practice Guideline Development, Dissemination and Evaluation in Canada (1994-2005)

Jennifer KRYWORUCHKO, Dawn STACEY, Nan BAI, Ian D. GRAHAM

J.K., D.S., I.D.G.: University of Ottawa School of Nursing. Ottawa. Ontario. Canada
N.B.: Canadian Medical Association. Ottawa. Ontario. Canada
I.D.G.: Knowledge Translation Portfolio. Canadian Institutes of Health Research. Ottawa. Ontario. Canada

Background: Despite the growing availability of clinical practice guidelines since the early 1990's, little is known about how guideline development and dissemination may have changed over time in Canada.
Purpose: To compare Canadian guideline development, dissemination, and evaluation in two six year periods from 1994-1999 and 2000-2005.
Methods: Survey of guideline developers who submitted their clinical practice guidelines to the Canadian Medical Association Infobase (a Canadian guideline repository) between 1994 and 2005. Survey items included information about the developers, aspects of guideline development, and dissemination and evaluation activities.
Results: Surveys were sent to the developers of 2341 guidelines in the CMA Infobase over the 12 year period, 1664 surveys were returned (response rate 72%). Of these, 730 unique guidelines were released from 1994-1999, and 630 were released from 2000-2005. In the more recent period, guidelines were produced in English only. Most guidelines were developed by provincial and national organizations. In the recent period, developers were more likely to report using computerized search strategies (94% versus 88%), publishing the search strategy (42% versus 34%), reaching consensus using open discussion (95% versus 78%), evaluating effectiveness of the dissemination strategies (12% versus 6%) and the impact of the CPGs on health outcomes (24% versus 5%). Recent guidelines were less likely to be based on literature reviews (94% versus 99.6%) and were disseminated using fewer strategies (mean 4.78 versus 4.12).
Discussion: Guidelines produced more recently in Canada are less likely to be based on a review of the evidence and only about half discuss levels of evidence underlying recommendations. Guideline dissemination and implementation activities have decreased. Given that guideline development processes have improved in some areas over the past 12 years yet not in others, ongoing monitoring of guideline quality is required.

PLENARY SPEAKERS ABSTRACTS

FKNOWLEDGE TRANSFER AND CULTURAL DIFFERENCES

Alessandro LIBERATI

Even when evidence about outcomes and effectiveness is clear (and this is not often the case) local circumstances – broadly defined as *cultural* – dictate how that evidence is (and can) be translated into practice. While there is an increasing consensus on the idea of *globalising the evidence and localising the decisions*, it is important to understand that: a) opportunities to do so will be tempered by cultural values; b) their relative importance in different environments influence the success of failures of guidelines implementation.

The influence of cultural differences in knowledge transfer and production, dissemination and implementation of practice guidelines has not yet been the subject of systematic scrutiny and it has, in turn, been clouded by an insufficient understanding of the very purpose of guidelines. A way forward would be to incorporate into the knowledge transfer process an understanding of how issues such as general characteristics of the healthcare system, access and affordability of care, access to information, relative importance attributed to individual's role into the choice among alternative interventions, the legal environment, the centralised or decentralised nature of the policy making process, may act as facilitators or barriers. These general concepts will be presented and discussed with reference to specific examples of guidelines whose production and implementation had to face, to different extent, some of these *cultural differences*.

About the presenter

A.L.: University of Modena and Reggio Emilia; Director, Italian Cochrane Centre; consultant of the Regional Health and Social Care Agency, Bologna Italy

Alessandro is a member of the GRADE working group and works with guideline developers in Italy and internationally. His areas of interests include methodology of systematic reviews and evaluation of translation of research results into clinical practice. He his co-convenor of the PRISMA working group which produced PRISMA (*Preferred Items for Reporting of Systematic Reviews and Meta-analyses*), a new guidance for reporting of systematic reviews and metanalyses of healthcare interventions

LOCAL AND REGIONAL VARIABLES ARE IMPORTANT IN THE CLINICAL GUIDELINES DEVELOPING PROCESS

Rodrigo PARDO

It is not only the issue of scarce resources, but also the conception of the health system itself and the role of governments and local leaders in prioritizing the topics and taking advantage of models and guides built in developed countries. Quality is a relatively new concept in our health systems but it will not be a reality while inequity persists. The gap between issuing recommendations and implementing them must recognize cultural, economical and social barriers, as much as the interests of different stakeholders. Guidelines adaptation is a controversial issue among very well recognized groups. This option must be carefully considered, taking into account the time, available resources, perspective of the recommendations, technical capacities and willingness of the people involved. Several guidelines have been adopted as a norm or law in Latin American countries. In that way recommendations have the force of law. This perspective reveals difficulties in dealing with evidence based models, capacity building, and the way in which conflicts of interest are managed within different systems. Guidelines must be closely articulated within the health system where they are going to be implemented. Objectives and goals of a comprehensive program are discussed, and its principal obstacles outlined.

About the presenter

R.P.: Is a neurologist and clinical epidemiologist at the National University in Colombia. His work is focused in development of clinical guidelines in a developing country and in making clear the critical points in the whole process. Dr. Pardo is leading a regional model in Spanish language to help new developers achieving success.

DIFFERENT NEEDS FOR GUIDELINES
Diseases, Medicines & Economics

Albertino DAMASCENO

Guidelines are usually developed with evidence raised by research developed in wealthier countries and by experts that most of the times do not know the reality that health workers face in underdeveloped countries. These countries, mainly the African Sub Saharan countries, have a very young population and a major part of it living with less than 2 USD a day, being in an earlier phase of the epidemiologic transition. This determines a different pattern of diseases and a different pattern of aetiology of the diseases, that sometimes also compromises the strict application of the international guidelines.

Scarcity of skilled health personnel and of diagnostic facilities and the shortness of drugs are also constraints to the applicability of general guidelines in these settings. Most of the times, in these settings, the objectives of the guidelines must be much more modest.

About the presenter

A.D.: Eduardo Mondlane University. Head, Cardiac Department, Maputo Central Hospital. Maputo. Mozambique

Albertino Damasceno is a cardiologist and Professor of Medicine at the Faculty of Medicine of the Eduardo Mondlane University in Maputo, Mozambique. He has been invited to participate in several working groups of WHO, some for the development of guidelines adapted to poorer environments. His areas of interests include hypertension and salt sensitivity, heart failure, stroke and cardiovascular epidemiology.

EVIDENCE AND RECOMMENDATION GRADING IN GUIDELINES

A Short History

Françoise CLUZEAU

Hierarchies of evidence and grading of recommendations are widely accepted as prerequisites for developing evidence-based clinical guidelines. This notion has been driven by a need to protect the internal validity of the recommendations and to ensure they will lead to the desired outcomes. Hierarchies can provide a helpful summary of the quality of the evidence and the strength of recommendations for busy clinicians. Overtime they have helped raise awareness that some forms of evidence are more trustworthy than others. However, the profusion of these hierarchies, simplification in their design and interpretation, as well as their indiscriminate application has led to confusion amongst guideline developers and users. Some argue that hierarchies of evidence are oversimplified frameworks and some even question whether they are needed at all. This presentation examines the evolution of conventional evidence hierarchies over the past twenty years leading to the development of the GRADE approach. It provides a critical analysis of their designs and highlights their merits and flaws using examples from recently developed guidelines from major guideline programmes as illustrations.

About the presenter

F.C.: Is a Senior Adviser at NICE International where she is responsible for designing and delivering on guidelines and HTA projects with client countries. For six years she was a technical advisor to the NICE guidelines Programme with responsibility for the guidelines manual. She led the AGREE collaboration and she is the chair of the AGREE Research trust (ART). She is a member of the GRADE Group and of the G-I-N Advisory Group. She holds a lectureship at St George's University of London.

THE PRACTICE OF GRADE AND WHY GUIDANCE DEVELOPERS USE IT

Holger SCHÜNEMANN

The GRADE approach to grading quality of evidence and strength or recommendations is increasingly used by many organizations and professional societies around the world. The approach has brought together established concepts of health research methodology and application of health research results. GRADE promotes standardization and transparency in developing guidance for consumers of healthcare recommendations. In this presentation concepts and processes of GRADE will be discussed. In particular, it will focus on practical examples on how to apply the GRADE approach based on the experience of various organizations including WHO, American Thoracic Society, and other professional societies. The examples will focus on various ways organizations deal with compilation and evaluation of evidence to apply GRADE, how they incorporate consideration of values and preferences, and how the recommendations are made. Challenges of the approach and proposed solutions will be discussed. The presentation will also describe GRADE working group's plans for the future advancement of the approach.

About the presenter

H.S.: Department of Clinical Epidemiology & Biostatistics Michael Gent Chair in Healthcare Research Professor of Clinical Epidemiology, Biostatistics and MedicineHolger is co-chair of the GRADE working group. He works with guideline developers around the world and serves as documents editor for the American Thoracic Society, the prime international society for research and education in respiratory disease, where he is responsible for overseeing the publication of all official statements of the society, including guidelines.

CONFERENCE ABSTRACT

Applying the GRADE Process in a National Guidelines Programme

Robin T. HARBOUR

Background: The Scottish Intercollegiate Guidelines Network (SIGN) has been producing national guidelines for the National Health Service in Scotland since 1993. For most of that time it has used a grading system developed in-house (and subsequently widely adopted elsewhere). SIGN has now decided to adopt the GRADE approach to grading recommendations in the future.

Issues: Making such a major change to a well-established programme is not straightforward. This presentation looks at the steps in the GRADE methodology and how they relate to wider aspects of the guideline development process. Particular attention will be paid to patient involvement, and how GRADE deals with areas other than clinical interventions.

Prospects: The benefits of the GRADE approach will be highlighted, and an attempt made to pick out those aspects of guideline development processes where most work has still to be done to take full advantage of the new approach.

About the presenter

R.T.H.: Quality & Information Director, SIGN. Mr. Harbour trained as a librarian, and since graduating in 1968 has worked in a range of scientific and technical organisations. He has also gained an honours degree in biology through part-time study, as well as various management and language qualifications.

He has been involved with information retrieval since the introduction of online computerised information systems in the early 1970s. He is the author of a (now very dated) book on library automation, as well as several articles on literature searching and guideline methodology.

Since 1996 he has worked for the Scottish Intercollegiate Guidelines Network, and was responsible for much of the early development of their methodology. His main current responsibilities are the development of the systematic review process, and methods used for the grading of recommendations, as well as the development of quality assurance procedures for the guideline development process.

INVOLVEMENT OF PATIENTS AND CITIZENS

HTAi Experience

Karen FACEY

Health technology assessment (HTA) aims to support rational decision making in healthcare policy and practice

through robust assessment of evidence and knowledge in the national/regional context. Given the current political emphasis for patient-centred care; shared decision making between physician and patient; and accountability of healthcare systems to their owners (i.e. citizens), involvement of patients and citizens in HTA would seem essential. However, 'involvement' can be defined in many ways and can be seen as a 'box ticking' exercise.

The HTAi Interest Group on Patient/Citizen Involvement in HTA provides guidance to those undertaking HTA to show how they can effectively involve patients and citizens in their work. Many of the ideas are relevant to guideline development and so HTAi is pleased to have a close working relationship with GIN on these issues.

Focus to date has been on including patients' perspectives, in two quite different ways through:

1. generation of robust evidence about patients' views on the consequences of using a technology and living with the illness
2. involvement processes that support patients to participate fully in the deliberative processes of HTA.

As evidence on patients' views may arise from primary studies or systematic reviews, considerations of quality and applicability of the evidence are similar to those made in the clinical effectiveness assessment of an HTA or guideline. The challenge is that the majority of studies which provide this evidence are from the social science or humanistic research field and the involvement of professionals with such social science training is not commonplace in assessments.

Many studies describe the barriers to patient/citizen involvement in HTA, but few give practical advice on how it can be achieved. The HTAi Interest Group has developed a comprehensive glossary for use with patients involved in HTA, promotes a guide from Health Equality Europe on HTA that is for use by patient organisations and is developing other support materials.

The next question is what more is needed to move from the ticking the box for consumer involvement to making sure that patients participate fully in our evidence based work and measuring the impact of this?

About the presenter

K.F.: Is an Honorary Senior Research Fellow in the Department of Public Health and Health Policy at the University of Glasgow and Honorary Member of the Faculty of Public Health in the UK. Following a career as a statistician in the pharmaceutical sector, Karen has worked for the past nine years in health technology assessment (HTA), which provides a bridge for evidence and knowledge to inform healthcare policy. She has developed a passion for bringing patient perspectives into the HTA process and since its inception in 2005 has chaired the Interest Group on Patient/Citizen Involvement in HTA for Health Technology Assessment International (HTAi).

PUBLIC INVOLVEMENT IN HEALTHCARE QUALITY IMPROVEMENT

A consumer/Advocate Perspective

Carol SAKALA

Systematic efforts to involve healthcare consumers, advocates and the public in clinical guidelines processes can benefit from experiences with consumer involvement in related areas. This presentation draws on a range of experiences with consumer involvement, including refereeing of Cochrane reviews, serving on a Cochrane review author team, working with the Cochrane Consumer Network (CCNet), working with a national standards body to identify national standardized performance measures, carrying out and using results of national *Listening to Mothers* surveys, and using a multi-stakeholder approach to identify policy priorities for a blueprint for quality improvement. The presentation will give examples illustrating the potential of consumer involvement for improving quality and adding value, common challenges that must be addressed to realize this potential, and solid groundwork for consumer involvement in the form of research and tools that are now available and can be used to enhance involvement of the public and patients/consumers in clinical guidelines processes.

About the presenter

C.S.: Has worked for over 25 years to improve the quality of maternity care, with a continuous focus on best interests of women and families. She is Director of Programs at Childbirth Connection, of New York City, a 91-year-old national not-for-profit organization that works to improve the quality of maternity care through research, education, advocacy and policy (http://www.childbirthconnection.org). She is a public member of the Guidelines International Network Patient and Public Involvement Working Group Steering Committee.

INVOLVING PUBLICS IN GUIDELINES: WHERE NEXT?

Antoine BOIVIN

Patient and public involvement is increasingly seen as a critical component of guideline development and implementation to ensure that guidelines are credible, legitimate, and properly implemented. In the past decade, a growing number of organizations have experimented with innovative ways to involve patients and the public in guidelines. However, involvement programs are plagued by recurrent questions regarding *who are patients and the public*? and *what does it mean to involve them*?; by uncertainty about the feasibility and effectiveness of involvement strategies; and by fear that these may introduce bias and unduly politicize guidelines. This presentation aims to clarify terms and provide an overview of existing experiences of patient and public involvement in guidelines, based on original research and a knowledge synthesis of the literature. It also proposes a practice and research agenda to foster the development and evaluation of effective involvement programs, based on a consulta-

tion exercise carried by the Guideline International Network Patient and Public Involvement Working Group.

About the presenter

A.B.: Is a Canadian family physician and a doctoral candidate at the Scientific Institute for Quality of Healthcare in the Netherlands. His research work focuses on the role of patients and the public in health services delivery and quality. Since its creation in 2007, Dr Boivin acts as Scientific content leader for the Guideline International Network Patient and Public Involvement Working Group.

GUIDELINE PROGRAM & HEALTH POLICIES IN MEXICO

Carlos JIMENEZ

Mexico's health services provide medical attention, public health and social services; Mexico's health research revolves around public, clinical and basic health.

Clinical Practice Guidelines (CPG) are not explicitly mentioned in Mexico's General Health Code, within the context of Mexico's health legislation; however, health research is mentioned and *the study of the techniques and methods recommended or employed in the delivery of health services, and the use of new therapeutic or diagnostic resources* are pointed out.

Within the 2002-2006 National Development Plan (PND) the REFORM of the health sector refers to the concept of INTERVENTIONS. *Cost effective Intervention Protocols* are explicitly mentioned as a core concept of the health services basic package. The 2007-2012 PND does not explicitly mention the concept of CPGs.

For the first time, the 2002-2006 National Health Program mentions the *design, promotion and adoption of consensus and scientific evidence based clinical guidelines*, as well as the *design and use of explicit technical quality indicators which favor the rational use of resources and infrastructure* and *medication prescription guidelines which include relevant evidence based medicine and cost information* as one of the policies prompted by the strategies and objectives which it introduced.

In continuation of the 2002-2006 National Health Program, the 2007-2012 National Health Program explicitly and clearly mentions the concept of *Evidence Based Medicine*, while at the same time underscoring the *production of scientific evidence to be used as a decision-making and reporting tool* as one of its components. The program also mentions *promoting the use of clinical practice guidelines and medical attention protocols*, advancing the evaluation of health technologies and *incorporating the Master Catalog of Clinical Practice Guidelines* among its strategies and policies.

CPGs were not explicitly mentioned during the plebiscite of the Mexican Health Education and Research Forum which took place in 2001 and which paved the way for the analysis and activities which contributed to the increase in health research.

The key decision-making information sources for the 2001-2006 period have been administrative information records, population growth projections, household surveys and cost-effectiveness model analysis. The level of evidence reflected by this type of actions is based on the epidemiological study model and on financial assessments.

The National Center for Health Technology Excellence (CENETEC) was founded in 2004 and is in line with the strategies and objectives presented in the 2007-2012 National Development Plan. Its principal goal is to *collect systematic and objective information relevant to the evaluation, management and appropriate use of health technologies, which provides reliable data pertaining to the effectiveness, safety, applications and regulations in the area of health technology, in order to support decision-making processes and the optimal use of resources*.

Among its principal functions are those of *developing planning, managing and evaluating tools for the National Health System*, while *advancing the evaluation of health technologies* and *incorporating the Master Catalog of Clinical Practice Guidelines* is its chief responsibility.

During the year 2007 the *General Outline for the Consolidation of Clinical Practice Guidelines* was drafted. The resulting technical document or manual incorporates the international methodology for the development of the relevant clinical questions, the information search strategy, information synthesis and qualitative evaluation of other CPGs through AGREE (Appraisal of Guidelines Research and Evaluation).

Between the years 2007 and 2008, 500 health professionals within the National Health System received training.

The Mexican/Iberoamerican Cochrane Network (RCM), through the Cochrane Collaboration Center at the National Institute of Pediatrics (CCINP), has participated, at no profit, in the methodological production of the *General Outline for the Consolidation of Clinical Practice Guidelines* while its member have acted as *Full Professors* in the 2007 and 2008 training courses.

During 2009 the RCM and the CCINP have declared conflicts of interest with the CENETEC, as production times have been reduced and the methodology used to train health professionals has become more relaxed.

As of June 2009 the dissemination and implementation of the CPGs has been the responsibility of the Bureau of Quality and Education in Health. This department has enlisted the Strategic Working Group for the Dissemination and Implementation of CPGs, formed by 14 institutional members; among them the Mexican Cochrane Network.

Its goal for 2008 was the production of 187 CPGs, by the Mexican Health Department (SS), the Mexican Social Security Institute (IMSS) and the State Employees' Social Security and Social Services Institute (ISSSTE). Up until June of 2009 the SS has committed to 71 CPGs and has published 8; 51 are undergoing validation. The IMMSS has committed to 94 and has published 2; 76 are undergoing validation. The ISSSTE has committed to 23 and has not yet published any; 11 are undergoing validation. Al-

together 16 CPGs have been authorized for publication in the Master Catalog of Clinical Practice Guidelines.
The following are among the principal obstacles in the development of CPGs in Mexico:

1. Conflicts of interest caused by political pressure impede the adherence to the Master Catalog of Clinical Practice Guidelines.
2. The lack of formal commitment and of scientific returns among participating members.
3. Conflicts of information due to the recent introduction the Systematic Review methodology and CPGs.
4. A lack of funding for the implementation of the Systematic Review methodology and of CPGs.
5. A lack of congruency in the time allotted for the production and for the implementation of new methodologies.
6. The lack of a concrete funding policy which would allow CPGs and Systematic Reviews to be considered as integral parts of the new paradigms in scientific research.
7. A lack of congruency between the explicit policy for systematic decision-making and the implementation of the Systematic Review methodology and CPGs.
8. No specific policy has been implemented to include CPGs and Systematic Reviews in undergraduate and postgraduate educational programs.
9. CPGs created in previous years suffer from multiple flaws.
    a. There are no clear scope and no clear objectives.
    b. The point of view of health professionals is being ignored.
    c. The level of evidence and clinical recommendations is based on consensus.
    d. Undue emphasis has been placed on the design and presentation of the format.
    e. No consideration has been given to organizational implementation.
    f. Authors do not declare conflicts of interest.

During the last 12 years, the Mexican Health System has encouraged the introduction of strategies and specific policies based on international initiatives through its National Health Programs. The development and implementation of new methodologies for the fulfillment of the objectives set forth presupposes a training-learning process for all health professionals and decision makers, who will need to re-examine, supervise and evaluate each other on the fly.
Among the challenges ahead of us and in agreement with the Ministerial Summit on Health Research which took place in Mexico, in November of 2004, we must:

- Evaluate our National research system,
- encourage the adoption of new methodologies (systematic reviews and clinical practice guidelines),
- develop a regional and universal platform for recording randomized clinical trials,
- strengthen research in biomedical, health sciences, public health and the health systems,
- reflect the highest quality in the design, structure and methodology of CPGs being produced, through the training of health professionals.
- The implementation of the above must reflect the efficacy of the clinical recommendations made to improve the overall health of the population.

About the presenter
C.J.: Cochrane Collaboration Center at the National Institute of Pediatrics. Mexican Cochrane Network. Iberoamerican Cochrane Network. Mexico.

GUIDELINE PROGRAMME AND HEALTH POLICIES IN EUROPE

Liisa-Maria VOIPIO-PULKKI

Economic growth and political integration in the EU are closely connected to free mobility of people, products and services. However, the so-called subsidiarity principle means that providing healthcare is the responsibility of individual member states as health is not a commercial product but more a public service of general interest. This principle has been recently challenged by the suggested directive on patients' rights in cross-border healthcare. The directive's explicit aims include facilitating access and providing assurance about safety and quality of cross-border healthcare as well as fostering cooperation between EU healthcare systems where useful.
Comparable clinical practices as well as transparent reimbursement and liability rules are prerequisites of an effective cross-border healthcare system. Problems arise as attention is paid to the grossly different codes of conduct between the existing national healthcare systems. Member states have divergent opinions on how the suggested directive should be balanced between the individual patients's freedom of choice and the member states' rights to design their own healthcare baskets and to ask for preauthorisation before paying the patient's bill. The less priviledged member states have expressed their concerns that, in effect, the proposed directive would favour countries with surplus healthcare capacity and lead to increasing inequity and deteriorating public health in others. There appears to be another group of critical member states characterised by tax-funded equal access healthcare systems and, interestingly, a strong tradition of national guideline programmes. These member states, or at least their healthcare systems, fear that among other side effects, uncontrolled patient mobility may lead to healthcare shopping and less adherence to nationally tailored clinical guidelines.
Politicians are insensitive to the vast cultural differencies in medicine. Policymakers assume that we as medical experts can easily produce guidelines for cross-border dissemination and implementation. Medical specialities and research groups identify themselves as international and global operators and, consequently, have become less sensitive to the real world healthcare systems. These developments should be taken into account by the expert commu-

nities as they prepare clinical guidelines for international audiences. Recent experiences from the European Society of Cardiology's guideline and survey programme will be reviewed to study how these challenges can be approached on the European level. An example of a potentially successful adoption of clinical guidelines by national policymakers will be provided by Finland's recent ruling of uniform criteria on access to non-urgent care.

Modern medicine calls for excellent performance and patient empowerment. Today's health policymaking calls for competitiveness, cost-efficiency and free choice. Clinical guidelines as they exist today have done a wonderful job in teaching our leaders to respect evidence. However, the accepted common values and principles of EU health systems (universality, access to good quality care, equity and solidarity) would be best served if the guideline pioneers would now be willing to compromise some academic purity for the sake of maximal added value to our patients. Such re-evaluations and strategic changes are probably underway in many guideline-producing organizations. By doing so, you will maintain both the clinicians' appreciation and the politicians' apprehension.

About the presenter:

L-M.V-P.: Specialist in internal medicine and cardiology. Currently senior medical adviser, The Association of Finnish Local and Regional Authorities in Helsinki, Finland, and adjunct professor of medicine, University of Turku, Finland. Member of the Board and Presidential Committee, European Hospital and Healthcare Association (HOPE). Formerly physician-in-chief, Department of Emergency and Acute Care, Helsinki University Central Hospital. Research interests include clinical and experimental cardiology; organization of acute healthcare, continuous professional development and clinical practice guideline implementation.

CLINICAL PRACTICE GUIDELINE DEVELOPMENT AND IMPLEMENTATION

Policies and National Approaches in Australia

Heather BUCHAN

There are multiple groups in Australia that produce clinical practice guidelines, some of which are funded by government. Quality of guidelines varies and implementation is patchy. This presentation will focus on work being undertaken to improve co-ordination and quality of guidelines nationally and to build capacity in guideline implementation. It will include a discussion of a new set of mandatory standards that guidelines must meet if they are to be approved by the National Health & Medical Research Council, moves to strengthen the process for declaring and managing competing interest, and a new *Guidelines in Development* register that aims to increase coordination in guideline development efforts across the country. Some of the strategies used to improve implementation, including a fellowship program aimed at developing clinical leaders in implementation will also be presented.

About the presenter:

H.B.: Currently works for the Australian National Health and Medical Research Council, providing advice on the redevelopment of their clinical guidelines program. She was previously Chief Executive Officer at the National Institute of Clinical Studies, an organisation funded by the Australian government to improve the uptake of best available evidence into current clinical practice. She trained in New Zealand as a public health physician specialising in medical management and became interested in improving uptake of research knowledge while undertaking post-graduate studies in epidemiology as an Oxford Nuffield Medical Scholar. She has worked in New Zealand, the United Kingdom and Australia in hospital, academic and government sectors.

POSTERS

P1

UPDATING A GUIDELINE ON BREAST CANCER

Paula MANCHON-WALSH, Josep María BORRAS, Tarsila FERRO, Josep A. ESPINAS
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Background: The Catalan Cancer Plan developed the Breast cancer Oncoguia, a clinical practice on breast cancer, as a measure for improvement of cancer care based on the best scientific evidence available. It was first published in 2003 and updated during 2008.
Purpose: The general aim was to update the Breast cancer OncoGuia. Specific aims were as follows: to update the recommendations of the original guideline, update the evidence supporting its recommendations and add quality ratings, propose an evaluation tool, include a section for patients and improve general layout and enable key recommendations to be easily identified.
Methods: The updating process was open to all experts who had participated to the development of the original guideline. Based on a review of clinical practice guidelines on breast cancer, the participants were asked to identify recommendations to update or to newly introduce. A literature review was then carried out and two experts graded the evidence selected by the experts using CEBM-Oxford scale for diagnostic interventions and SIGN scale for therapeutic interventions. A set of Indicators was selected from the literature. An oncology nurse developed a section for patients with breast cancer which was reviewed by a medical oncologist and by a breast cancer patients association.
Results: 27 clinical experts from 6 medical specialties concerning patients with breast cancer participated in the updating. In total, 40 key recommendations on clinical aspects of diagnosis, treatment, and follow-up of patients with suspected or diagnosed breast cancer were updated or newly introduced. In order to support attempts to evaluate the quality of care provided in conformance with the guideline recommendations, 7 indicators were introduced. Finally, a section providing information for patients was included.
Conclusion: Updating a guideline is necessary and can be a good opportunity to complete its content and improve its quality.

P2

PRIORITY SETTINGS IN PRIMARY AND SPECIALIZED HEALTHCARE

The Development of a National Guideline for Individual Primary Prevention of Cardiovascular Disease

Ole Frithjof NORHEIM, Bjørn GJELSVIK, Tor Ole KLEMSDAL, Steinar MADSEN, Eivind MELAND, Stein NARVESEN, Anne NEGAARD, Inger NJØLSTAD, Serena TONSTAD, Frøydis ULVIN
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Background: Individual risk assessment and treatment decisions for primary prevention of cardiovascular disease have been introduced in many countries. However, in our country no agreement exists on treatment priorities and decisions between primary and specialized healthcare. As a consequence, advice may differ when given in a primary or specialized healthcare setting. Furthermore, guidelines based solely on absolute risk, as those published by the European society of cardiology (ESC) tend to favour treatment of older individuals.
Purpose: To establish national recommendations concerning risk assessment and treatment decisions of primary prevention of cardiovascular disease based on scientific documentation, health economics, priorities and ethics.
Method: Primary and specialised healthcare professionals, technical staff and patients formed a guideline group that met regularly over 5 years. Thorough and explicit evaluations of the documentation and health economics concerning individual primary prevention of cardiovascular disease were performed. Based on this the guideline group agreed on differentiated risk assessments and priorities as to when lifestyle changes were adequate and when pharmaceutical treatment was needed.
To gain further support of the recommendations and the priority settings, the National Council for Quality Improvement and Priority Setting in Healthcare (NCQIP) was consulted. This council consists of members from the different healthcare regions and patient organizations and gives advice in national priority questions in healthcare. Additionally, a general 3 months nationwide consultation was performed.
Results: Data from national studies involving gender, age, blood pressure and total cholesterol were used to establish risk scores for risk of cardiovascular death within 10 years. Based on this risk assessment differentiated risk limits for young persons (1%) and older persons (10%) concerning when additional pharmaceutical treatment should be instituted were established. The recommendations were supported by the NCQIP.
Discussion: Primary and specialized healthcare were able to achieve consensus regarding differentiated risk limits according to age. These priorities differed from published recommendations that favour treatment of older individuals.

P3

METHODS TO IMPROVE GUIDELINE QUALITY IN HUNGARY

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Background: Since 2002 394 clinical practice guidelines (CPGs) were officially released by the Ministry of Health in Hungary. As part of their procedure, the TUDOR EBM network has critically appraised 278 of these using a questionnaire based on the AGREE Instrument and Training Manual. Findings of this assessment, together with training and a *guideline for guidelines*, were presented to guideline developers to help them improve CPG quality in the next updates. In spite of these efforts, no major improvements could be observed either in the methodological quality or use of CPGs in clinical practice. In lack of a dedicated guideline clearinghouse with an evidence based methodological support function, most guideline teams still use non-systematic, non-evidence based or traditional methods when formulating recommendations.
Purpose: Therefore we aimed to develop a practical CPG manual that assists guideline teams in making higher quality and applicable recommendations.
Methods: Before producing this technical manual, we systematically surveyed the needs and expectations of users of CPGs. We intended to provide user-friendly tools for adaptation of external (preferably European and evidence based) guidelines to national settings, based on internationally published methods and materials.
Results: The identified needs of CPG *customer* groups were: easily accessible, clearly worded recommendations with proven internal and external validity for standardized care pathways at national level, which clearly address the competence and responsibilities of healthcare providers, the characteristics of the local healthcare system and expectations of patients. The technical manual can be used as a template that instructs CPG teams step-by-step in formulating recommendations fulfilling the above criteria. The manual was pilot tested in 4 CPGs already and experience accumulating with its use is built into the final version.
Discussion: We do believe that methodological support tools, such as our technical CPG manual will contribute to the development of higher quality and more applicable recommendations.

P4

TREATING CHILDREN WITH UNLICENSED OR OFF-LABEL MEDICINES

Recommendations in Clinical Guidelines

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Background: In the UK, unlicensed/off-label use of medicines account for 11% of medicines in general practice, 25% in hospital general wards, 40% in paediatric intensive care units and 80% in neonatal intensive care units. Use of unlicensed/off-label medicines can lead to underdosing/overdosing, difficulties in oral administration, concerns about pharmaceutical quality, limited availability and concerns from healthcare professionals about prescribing these medicines. Because of the lack of drugs licensed for children, paediatric clinical guidelines must recommend using unlicensed/off-label medicines.
Purpose*:* To determine how UK clinical guidelines recommend unlicensed/off-label use of medicines in children.
Methods*:* Review of UK guidelines development manuals for advice provided on the use of unlicensed/off-label medicines. Audit of published UK paediatric clinical guidelines to identify recommendations describing unlicensed/off-label use of medicines.
Results: The 2007 and 2009 editions of the NICE manual offer guidance on writing recommendations for unlicensed/off-label use of medicines (2009 edition advises use of footnotes) but not the SIGN 2008 or Royal College of Paediatrics and Child Health 2006 manuals. Neither of the two RCPCH clinical guidelines addressed general issues concerning unlicensed/off-label use. Three of the seven SIGN guidelines mentioned the general issue; one recommendation described unlicensed/off-label use of a specific medicine. Of 17 NICE guidelines, eight described the general issue; two of these used footnotes and one used asterisks to indicate recommendations for unlicensed/off-label use of specific medicines, two summarised information within the recommendation.
Discussion*:* The use of medicines in children outside their licensed indications is little addressed in UK guidelines. It is possible that in some guidelines, all recommended uses were within the licenses but this is not immediately apparent. Wording of recommendations should clearly indicate where use of a medicine is recommended outside of the licensed indications. A review of published literature suggested that the issue has not been examined in other countries.

P5

USE OF GRADE WHEN MAKING RECOMMENDATIONS

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Background: GRADE is an emergent system for grading the quality of evidence and the strength of recommendations. The use of GRADE is being endorsed, piloted or used by many organisations (including The Cochrane Col-

laboration, The Word Health Organisation) and publishers (British Medical Journal, Clinical Evidence or Up to Date).
Objective: To explore how many organisations are endorsing, using or piloting GRADE. And evaluate how many of those that use this system is actually doing it completely or partially.
Method: In February 2008, we searched the literature using the following terms 'GRADE', recommendation', guideline'. The search was limited to 2004 as the earliest date. We checked the newest guidelines from each guideline producer presented on the web pages of the National Guideline Clearinghouse for which method had been used to grade the quality of evidence and strength of recommendation. Additionally we have been collecting examples from collaborators, experts and other members of the GRADE working group and our web pages. For each guideline producer who stated that they had used GRADE, we noted if they had used the GRADE definitions and rules for grading the quality of evidence and strength of recommendation.
Results: The GRADE working group web pages lists 30 organisations that endorse or use the GRADE method. Our search identified a total of 592 titles of which we included 11 publications. Five of the 280 guideline producers listed on the National Guideline Clearinghouse web pages stated that they had used GRADE. Another five described methods very similar. However, 35% had no guideline newer than 2004, 29% of the remaining guideline producers had stated 'Not applicable' where grading method should be noted.
Discussion: There is an encouraging amount of organisations using GRADE, however, there are also many who do not grade their guidelines.

P6

MODIFICATION OF THE GRAPHICAL APPRAISAL TOOL FOR EPIDEMIOLOGY FOR GUIDELINE DEVELOPMENT

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Background: The Graphical Appraisal Tool for Epidemiology (GATE) is a critical appraisal tool developed by the Evidence Based Medicine working party.
Purpose: The objectives of this study were to test inter-observer reliability for individual items on the GATE intervention checklist, to document reviewers' experience of using GATE and then modify the tool for use by the New Zealand Guidelines Group (NZGG)
Methods: Two reviewers independently completed a GATE checklist for each study from two sample of 10 randomised controlled trials (RCTs) included in clinical practice guidelines. Agreement between reviewers was calculated for each item on the GATE checklist using prevalence-adjusted bias-adjusted kappa (PABAK) and reviewers' experiences of using the tool were documented. The GATE tool was modified based on reviewers agreement and re-tested with a further 10 RCTs. Final amendments to the tool were then made.
Results: Agreement between reviewers for individual GATE items in the first round ranged from 20% to 100%, with a median of 65%. Inter-rater reliability was variable across individual items (excluding summary scores), ranging from a PABAK of -0.6 (poor) to 1.0 (very good). Inter-rater reliability was lower for items relating to internal validity and applicability than items pertaining to precision. Agreement on summary scores was rated poor for all categories (PABAK -0.6 to 0.2). Agreement between reviewers for modified GATE items in the second round ranged from 0% to 100% with a mean of 70%, an improvement on the first round. Inter-rater reliability ranged from a PABAK of -0.2 (poor) to 1 (perfect). Agreement on summary scores improved in crude agreement and PABAK score for all summary measures.
Conclusions: The amended GATE tool demonstrates better inter-reliability for appraising individual RCTs as part of a systematic review or guideline than the original.

P7

A COMPARISON STUDY OF A NUTRITIONAL PROGRAM EDUCATION

Effect on Quality of Life in Haemodialysis Patients Referred in Educational Hospitals in Urmia-Iran in 2008

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Introduction: Patients on maintenance hemodialysis (MHD) experience decreased quality of life (QoL) and significantly greater rates of malnutrition, inflammation, hospitalization, and mortality compared with the normal population. The dietary approach in the different phases of (CRF) is one of the most important, and yet controversial, topics in the whole history of nephrology, when dialysis facilities were not yet easily available. Malnutrition has been cited as a possible contributory factor towards a poor prognosis in patients, and any suggestion of worse nutrition needs to be explored further. Nurses' role in patients' education about a proper diet is essential. While much progress has been made in recent years in recognizing the link between malnutrition, different disease, and increased mortality, no consensus has yet been reached concerning the best assessment and management of nutritional status in dialysis patients with many physical and psychological complications in Iran.
Materials & Methods: 70 patients in the educational hospitals in Urmia were divided in two groups and requested to fill in the validated with the SF36 questionnaire QOL

questionnaire. The SF36, a short-form QoL scoring system with 36 items consists of 36 questions that are compressed into eight multi-item scales: (1) physical functioning is a ten-question scale that captures abilities to deal with the physical requirement of life, such as attending to personal needs, walking, and flexibility; (2) role-physical is a four-item scale that evaluates the extent to which physical capabilities limit activity; (3) bodily pain is a two-item scale that evaluates the perceived amount of pain experienced during the previous 4 wk and the extent to which that pain interfered with normal work activities; (4) general health is a five-item scale that evaluates general health in terms of personal perception; (5) vitality is a four-item scale that evaluates feelings of energy, and fatigue; (6) social functioning (SF) is a two-item scale that evaluates the extent and amount of time, if any, that physical health or emotional problems interfered with family, friends, and other social interactions during the previous 4 wk; (7) role-emotional (RE) is a three-item scale that evaluates the extent, if any, to which emotional factors interfere with work or other activities; and (8) mental health is a five-item scale that evaluates feelings principally of anxiety and depression.
Results: During the follow-up period, no patients died. 35 questionnaires distributed to case control patients and 35 questionnaires distributed to other patients. Nearly, two groups were similar in age, educational level, gender and duration of dialysis treatment. 46.8% of patients were female. The SF-36 total score was slightly higher in men compared with women, but this difference was not statistically significant ($p = 0.05$). 35 patients were taught a diet for hemodialysis and 35 of them not taught. There were differences between the two groups in terms of physical health or mental health dimensions. Results of the dimensions were better in educated group. But the difference between physical health was statistically significant ($t = 2.04$, $df = 34$, $p = 0.049$), in work activities ($t = 2.04$, $df = 34$, $p = 0.049$) and between their quality of life, too ($t = 2.28$, $df = 1.96$, $p = 0.43$) .
Conclusion: Because of the increased use of the SF36, it has become possible to compare mean scale scores among groups of patients undergoing dialysis and between different populations of individuals. QOL was nearly diminished in HD patients, but this amount was greater in the group that was not thought about their nutrition. Improvement could be achievable in patients if discomfort could be more effectively treated. One of the methods for this is education about their nutrition program. More research is needed to assess whether interventions to improve quality of life and lower these risks among hemodialysis patients.

P8

HOW CAN WE IMPROVE GUIDELINE UTILIZATION? A CONCEPTUAL FRAMEWORK OF IMPLEMENTABILITY

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Background: Guidelines continue to be underutilized and a variety of promotional strategies have been inconsistently effective. Modifying intrinsic attributes to make guidelines more «implementable» represents an alternate but untested way to improve their utilization.
Purpose: The purpose of this study was to identify and define implementability attributes, and theorize how they might improve guideline utilization.
Methods: Guidelines addressing common problems in primary and institutional care were identified and assessed for quality with a systematic process. Guideline attributes desired by, or influencing the behaviour of different users were identified by reviewing the literature. Data on these attributes were extracted independently from selected guidelines by two individuals who resolved conflicts through discussion, and then reviewed by the research team.
Results: Twenty guidelines on the management of diabetes, hypertension, leg ulcer and heart failure met eligibility criteria. Most contained supporting level of evidence for the recommendations and tables featuring supplementary clinical information. Few contained additional attributes that may improve guideline utilization such as summary versions, alternate versions for different users and purposes, information to facilitate discussions with patients or patient involvement in decision making, details of resource implications, and instructions on how to locally promote and monitor guideline utilization. There were no consistent trends by guideline topic. Implementability attributes may support different types of decision making (evidence-informed, experiential, shared, policy) by providing particular information and/or tools, or different decision making processes (intuitive, analytic) by making explicit the options for, and implications of alternate choices.
Discussion: Several opportunities were identified by which guidelines could be modified to facilitate utilization. New governance structures may be required to accommodate development of guidelines with these attributes. Further research is needed to validate the proposed framework of guideline implementability, develop methods for preparing this information, and evaluate how its inclusion influences use of guidelines.

P9

CLINICAL DECISION RULES IN GUIDELINES A Comparison of Methods Used in National Programmes

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Background: Evidence based guidelines are increasing tackling questions of diagnosis. Although there is an emerging consensus on how studies of diagnostic accuracy should be assessed and synthesised, less is known on how such reviews contribute to the development of useful clinical guideline recommendations. In addition, clinicians are considered to have an intuitive approach to diagnosis based on a combination of history, physical examination, and investigation.
Purpose: To describe how guideline development manuals from national programmes specify if/how clinical decision rules are to be assessed and incorporated into reviews of diagnosis or assessment.
Methods: We reviewed *recognised* manuals of national or international guideline programmes (written in English) to determine guidance on the use of clinical decision rules.
We also selected guidelines (identified through the guideline syntheses in the National Guideline Clearinghouse) related to diagnosis and examined if and how clinical decision rules had been.
Results: Results will be presented on any guidance on the use of clinical decision rules outlined in the following manuals: Council of Europe 2001, National Health and Medical Research Council 1999, National Institute for Health and Clinical Excellence 2009, New Zealand Guidelines Group 2001, SIGN 2008, WHO 2003.
We will also present results on if and how clinical decision rules have been incorporated into published guidelines, and where possible, how this has influenced the final recommendation.
Discussion: Clinical decision rules can quantify the contributions of history, physical examination, and investigation to the final diagnosis. Guideline developers are not being given consistent guidance in the use of such rules for guideline development, if at all. Further work is needed to determine how clinical decision rules can be used appropriately in guideline development, including the development of validated search strategies, quality assessment checklists and methods for synthesis.

P10

PROVIDING INFORMATION DOCUMENT BASED ON CLINICAL PRACTICE GUIDELINES FOR GPS
The Example of Bariatric Surgery

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Background: General practitioners (GPs) should play an active role in the care of morbidly obese patients, as it is stressed in the new French guidelines on bariatric surgery (Jan. 2009). However, this is not true in practice, in particular because of the lack of GPs' information about bariatric surgery.
Purpose: To provide GPs involved in the care of morbidly obese patients with a practical and helpful information document, based on the French guidelines on bariatric surgery, using an original four step method.
Methods: (i) We identified GPs' information needs on bariatric surgery by carrying out a survey of a panel of 10 GPs. (ii) We performed a literature search (2002-2008) for available documentation intended for GPs. (iii) A professor in general practice and a methodologist, together with a medical writer identified the parts of the French guidelines on bariatric surgery that answered these needs, and then drafted a 4-page document. (iv) The draft document was peer reviewed by 12 GPs.
Results: According to the survey, GPs need information on: technical procedures used in bariatric surgery, benefits and risks, indications and contra-indications, follow-up of operated patient, and reimbursement of costs. The literature search identified no information document on bariatric surgery for GPs. The peer reviewers found the draft document useful (100%), easy-to-read (91%), quick-to-read (82%), and well presented (73%). The majority thought that it would be helpful in informing their patients better (82%) and following them up after surgery (64%).Their comments were used to amend the draft.
Discussion: The impact of this document on the knowledge and practice of GPs involved in the care of morbidly obese patients now needs to be assessed.

P11

EVIDENCE BASED MEDICINE IN FINNISH OCCUPATIONAL HEALTHCARE

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Background: In Finland there are only a few evidence based (EB) guidelines directed at Finnish occupational health service (OHS). Most of the guidelines have been expert based. There is also few information about attitudes to evidence based medicine (EBM) in occupational healthcare in Finland.
Purpose: The aim of our study is to investigate the attitudes and the use of EB guidelines in Finnish OHS.
Methods: A questionnaire and focus group interviews will be made by email 5-6/2009 to recognize the attitudes to EBM and use of EB guidelines in Finnish OHS. The target population will be occupational health physicians and nurses. Results will be available in autumn 2009.
Results: The main outcome is to recognize actual situation of attitude and familiarity with evidence based guidelines of occupational health service. These results will be published in future.
Discussion: The evidence based medicine has come to stay. Most medical guidelines are on clinical medicine; OHS are just started to collect evidence on OHS practices. It is important to know what occupational physicians and nurses think of it to make the implementation of EB guidelines easier. Results will be taken in account when new EB guidelines will be done and the implementation intervention of evidence based guidelines will be planned.

P12

MODELS FOR CLINICAL PRACTICE GUIDELINES DEVELOPMENT

A Systematic Review and Comparative Evaluation

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Background: Clinical practice guideline (CPG) development is useful strategy for healthcare quality improvement. Methods for clinical practice guideline development have improved in last decade. Knowledge of methodological alternatives is an important step to achieve high quality CPG. There is a worldwide development of handbooks and guidelines for developers with consistent features. Adequate guidance from available documents could be influenced with instruction level of users.

Purpose: This review describes main features and evaluates grade of guidance in available development handbooks (in English and Spanish) for CPG and establish some differences between them.

Methods: We conducted a comprehensive search to identify all handbooks or guidelines for CPG development or adaptation. Search included databases and web pages of well known developers, all members, organizations or governmental agencies registered at G-I-N (Guidelines International Network, www.g-i-n.net) and cross references. We compare retrieved list with references in a recent paper (Turner T, 2008). We create an information matrix to extract main features in principal topics and qualify each topic according to offered guidance.

Results: We selected 13 handbooks (8 English, 5 Spanish). In general there is a most detailed guidance in handbooks published in English, but there is some information for developers that are not completely addressed in available materials. Lack of strong guidance is present in topics like prioritization, adaptation as an alternative for the novo development (except for ADAPTE), participatory processes, economic, equity, ethics and accessibility considerations or CPG impact evaluation. Other areas are quite heterogeneous in guidance, some others are consistent.

Discussion: There is not an unique and favorite handbook. Each one takes particular consideration of local context, which helps to define better proposed tools. There are some important matters that are not strongly developed today and are implicitly accepted by well trained developers. It could imply some limitations for developing countries.

P13

THE APPLICATION OF THE NICE COST-EFFECTIVENESS REFERENCE CASE IN GUIDELINE DEVELOPMENT

QALs and analytical perspective in three mental health guidelines

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Background: In association with National Collaborating Centres, the National Institute for Health and Clinical Excellence (NICE) produces guidelines on the appropriate treatment and care of people with specific diseases and conditions within the UK NHS. Consideration of cost effectiveness is an important part of guideline development, and the Institute prefers that decision making in this area is based on a NICE-defined analytical framework or *reference case*. Adherence to the reference case may not always be possible, and the extent to which it can be implemented may vary across clinical areas.

Purpose: NICE generally compares interventions by calculating the incremental cost-effectiveness *ratio* (ICER). The health outcome measure preferred by NICE is the quality-adjusted life year (QALY). Usually interventions with an ICER of less than £20,000 per QALY gained are considered to be cost effective. We aim to create a database of ICERs for interventions considered in mental health guidelines including details of how guideline development groups (GDGs) interpreted economic evidence when formulating their recommendations.

Methods: A retrospective analysis of published mental health guidelines, with the aim of extracting available ICERs for all interventions considered by the GDG. Interviews with individuals directly involved in the development of the guideline may also be undertaken.

Results: We will present preliminary data on the cost-effectiveness of interventions considered in mental health guidelines, including information on non reference case analyses and the reasons provided by GDGs when interventions were recommended despite economic evidence suggesting mean ICERs of above £20,000 per QALY.

Discussion: NICE guidance to its GDGs states that a number of factors need to be considered in addition to the results of a cost-effectiveness analysis when making recommendations. In the context of mental health guidelines, we will discuss how GDGs have taken into account cost-effectiveness data and explore any implications for NICE guideline methodology.

P14

IMPLEMENTING STROKE GUIDELINES BY TELEMEDICINE SERVICE

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Introduction: The European Stroke Initiative Executive Committee has prepared guidelines for the treatment of acute stroke. According to them, thrombolysis is the recommended treatment for acute ischaemic stroke, yet only 5 % of patients receive it within the 3 hour time frame. Long

distances and therefore late arrivals to hospital constitute one of the main reasons for that together with the lack of both neurologists and radiologists at smaller hospitals. The leading stroke centre in Finland, active in the European and Finnish Current Care guidelines development, established a telemedicine service to assist smaller hospitals to implement the guidelines.
Methods: The consulting neurologist in charge of telecommunication is at Helsinki university hospital when called. This system uses dedicated ISDN lines, two-way full motion and video and audio teleconferencing with the remote site encrypted via virtual private networks. ISDN lines transmit digital telephony and data transmission between two fixed points via existing telephone wires. The neurologist treating the patient at the remote hospital accesses a web application on the public internet via any computer using wireless or wired broadband. Access to patients' data is password protected.
Results: Telestroke connections are now established between Helsinki University Hospital and 5 hospitals in Southern and Northern Finland. There have been 103 teleconsultations in 2 years (2007-2009), leading to 59 thrombolysis (53%). Symptom to teleconsultation time has been mean 109 min. For those receiving thrombolysis median NIH Stroke Scale has been 10. For those 27 patients with follow-up data available, at 3 months modified Rankin scale was 0-2 for 14 patients and 3-5 for 10 patients. There were 3 deaths, one patient died due to intracerebral haemorrhage.
Conclusion: In a country with long distances, like Finland, implementing guidelines that require 24 h specialist availability also requires that a telemedicine service is established to support patient management.

P15
PROPOSAL OF A METHOD TO SHORTEN THE DEVELOPMENT TIME OF CLINICAL PRACTICE GUIDELINES

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Background: Guideline development usually takes 12 to 18 months but it may be necessary to draft guidelines faster (e.g. in response to requests from national health authorities).
Purpose: To develop a fast yet rigorous method for developing clinical practice guidelines.
Methods: We identified which steps of our current guideline drafting process were mandatory and which could be shortened or deleted. We also performed a literature review (1990-2008) on fast guideline development. The options were discussed by a group of methodologists.
Results: The first step is to determine topic scope and evaluate the need for a practice survey. Two options are then open depending on the negotiated deadline and the number of questions identified: (i) the short guideline development process includes a systematic review of high-level evidence data, a multidisciplinary working group meeting (1-day workshop) and peer review. It is suitable when there are 2 or 3 questions per management area (maximum of 6 clinical questions) and the time limit is 40 weeks; (ii) the summary note process (summary of the state-of-the-art and points of controversy) includes the same systematic review but interviews of stakeholders instead of a working group meeting. It can cover only 1 or 2 questions; the time limit is 26 weeks.
Discussion: The response to an urgent request for guidelines depends on the context (need for a practice survey, topic scope, time limit, literature available, conflicting views, etc.). The feasibility of the method proposed should be assessed on further requests.

P16
ADAPTATION OF INTRAPARTUM CARE GUIDELINE For the Local Context in Spain

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Background: In the Spanish National Health System, there is concern about the high degree of medical interventions in childbirth, the great variability in the use of caesarean sections (22% in public hospitals and 33,8% en private hospitals) and the instrumental deliveries which are procedures that may be associated with physical and psychological morbidity.
Therefore, the Ministry of Health and Consumer Affairs in collaboration with the Autonomous Communities developed The Strategy for care of healthy women during childbirth, which includes a program to develop evidence based Clinical Practice Guidelines (CPG) to support clinical decisions in the Spanish NHS
Purpose: To develop a CPG for Childbirth Care in the Spanish National Health System by updating and adapting the CPG on Intrapartum Care to healthy women published by NICE in 2007.
Methods: The development process has followed the proposal made in the Methodological Handbook for the CPG Development Program in the Spanish NHS, which takes into account the ADAPTE approach. This is a Collaborative Project between two Health Technology Assessment Agencies (Osteba and Avalia-t). The development group has been composed by 24 professionals from different regions and disciplines (obstetricians, midwives, perinatologists and anaesthetists) as well as three women be-

longing to Charities working for an appropriate care in Childbirth.
Results: The group drew up 77 questions. 63 were answered by the NICE CPG. However, a literature search was made to update them: The evidence from the NICE CPG was used in 54 % of the questions, so the recommendations were adopted and 46% were adapted based on new evidence and group discussion.
The remaining 14 questions were made *de novo*.
Discussion: Adapting CPG avoids duplication of efforts in the synthesis of the evidence, saving time and resources. To adapt a CPG to a different context it is required a multidisciplinary and representative participation (both professionals and patients) to develop appropriate recommendations and improve its implementation.

P17
EVIDENCE BASED CLINICAL PRACTICE GUIDELINES
How Traceable is the Evidence Base of Recommendations?
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Background: Evidence based CPGs give recommendations for the diagnosis and treatment of diseases. These recommendations should describe healthcare standards based on the best available evidence. However, the evidence base of the recommendations and how it is selected and evaluated may not be traceable using the CPG documentation; equally, the processes used to reach consensus on recommendations may not be documented by the guideline developers.
Purpose: The purpose was to assess how well recommendations and their underlying evidence were traceable using documents provided in evidence based CPGs on depression.
Methods: A systematic search for CPGs regarding diagnosis and treatment of depression in adults yielded 6 evidence based CPGs. CPGs were considered evidence based if a systematic literature search had been performed, references given and levels of evidence/grades of recommendation assigned. Following the AGREE instrument (Appraisal of Guidelines for Research and Evaluation), 5 questions were designed for appraising the documentation of the CPG development process. These covered the documentation of search strategies, inclusion and exclusion criteria of the literature searched, consensus-finding processes, matching of references to recommendations and evaluation of included studies. If no documentation was available, information was requested from the CPG group.
Results: Only one out of six CPG developers provided sufficient documentation to appraise the development of recommendations and their underlying evidence. The consensus-finding processes used to develop recommendations were mentioned in 5 out of 6 CPGs, but results were not documented for individual recommendations. The matching of references to recommendations was clear in the majority of CPGs. No CPG group provided further background documentation upon request.
Discussion: The study suggests that transparency in CPG development is a commendable concept in theory but is not common in practice. Although a systematic search and literature evaluation is indicated in CPGs, the documentation is often not publicly accessible and therefore not traceable.

P18
LAYING THE FOUNDATION FOR NATIONAL CLINICAL GUIDELINES IN SAUDI ARABIA
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Background: Saudi Arabia, like most countries in the Middle East, lack national clinical guidelines (CGL), and in many health institutions practice is based on experience and intuition of the health practitioner. The Chair of EBHC and knowledge translation has been commissioned by King Saud University to lay the foundation for a national center for evidence based CGL as part of quality improvement of patients' care.
Purpose: To demonstrate the steps taken in developing CGL in a health setting where healthcare is not based on guidance from evidence.
Methods: The program of developing CGL, started with an awareness month during which lectures, seminars and discussion about all aspects of CGL were presented and discussed. Attendees included healthcare practitioners, patients' representatives, policy makers and others. This awareness continued while committees from 16 clinical disciplines were formed and each department chose two priority health problems to adapt CGL for that area. A general multidisciplinary committee reviewed the drafted version of the CGL.
Discussion: Several issues arose during the implementation of the adaptation process including:

1. Difficulties in the acceptance of CGL by the clinicians due to lack of EBM culture
2. The need for development of indicators to assess the implementation of CGL
3. The need for created bridges of communication between the health service providers and the policy makers
4. Problems with financing
5. The major lack of health education among the public to be effect in participating in CGL development
6. Lack of audit system
7. Lack of the expertise in all aspects of CGL development or adaptation

There are many obstacles facing the establishment of a national center for CGLs in Saudi Arabia due to lack of infrastructure for such endeavor in most of the Middle Eastern countries.

P19

ASSESSMENT OF CLINICAL PRACTICE GUIDELINES

For Depression in Children & Adolescent, Using the Agree Instrument

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Background: The AGREE (Appraisal of Guidelines Research and Evaluation) instrument provides a common methodology for rigorous drafting of clinical practice guidelines (CPGs), thereby serving to evaluate their quality and impact. Prior to drawing up a CPG for Management of Major Depression in Children and Adolescent, a preliminary search was made of all existing clinical practice guidelines to assess their quality and prevent unnecessary duplication of efforts, particularly in the scientific-evidence search and assessment stages.
Purpose: To assess the quality of existing clinical practice guidelines on depression in children and/or adolescents, using the AGREE instrument.
Methods: A bibliographic search was made of all principal CPG and general databases (updated as of January 2008). Evidence- or expert consensus-based CPGs were selected. Neither adaptations nor guidelines that addressed the disease in specific groups were included. Each guideline was analysed separately by four technicians, and the individual results were then entered on an Excel table to obtain the final scores. Global assessment was reached by consensus among the assessors.
Results: We retrieved five clinical practice guidelines that met NICE, GLAD-PC, Singapore, AACAP and WFSBP inclusion criteria. While the guideline drawn up by the NICE received a global assessment of *highly recommended*, in three cases the assessment was, *recommended with modifications*, and in one, *not recommended*.
Discussion: The NICE guideline attained a high score in most criteria, and was assessed as having high overall quality and worthy of being *highly recommended*. Accordingly, it can be regarded as an excellent document to serve as a basis for drawing up the Child & Adolescent Depression CPG adapted to our local context.

P20

SELF-REPORTED USE OF CLINICAL GUIDELINES

In Finnish Primary and Secondary Care

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Background: In general Finnish healthcare professionals use actively electronic guideline databases and their attitudes towards guidelines are positive. But we need more information about professionals' actual behaviour both in healthcare sector and profession group levels for developing implementation methods of guidelines.
Purpose: Aim of the study was to describe how often physicians, nurses and other professionals used clinical guidelines in primary and secondary care.
Methods: A web-mail survey was carried out between November 2006 and May 2007 in two hospital districts and one rural primary care centre. We targeted 2252 professionals and there were 806 respondents; 54% of responses came from primary care and 46% from secondary care.
Utilisation of clinical guidelines was measured by using Likert-scale which varied between one (not at all) and seven (for every patient). Statistical analyses were performed using the SPSS 15.0 software.
Results: The self-reported use of guidelines differed substantially between healthcare sectors and profession groups. In secondary care, 80% of physicians used guidelines fairly often or for every patient, and 40 % of nurses and other professionals. In primary care the respective figures were 60% in physicians and nurses and 50% in other professionals.
On the other hand, 10% of physicians and 40% of nurses and other professionals in secondary care did not use guidelines at all or seldom, while in primary care 20% of physicians and nurses and almost 40% of other professionals.
Discussion: There were significant differences in groups between healthcare sectors. These results may reflect different clinical problems in primary care compared to secondary care, which obviously has a more complex case mix. Therefore single disease guidelines may not be as easily applied in primary care context.

P21

DEVELOPMENT OF A QUESTIONNAIRE TO ASSESS THE ATTITUDE TOWARDS CLINICAL PRACTICE GUIDELINES

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Background: The knowledge of physician attitudes towards Clinical Practice Guidelines (CPGs) is an essential component during the implementation process.
Purpose: To develop a questionnaire to assess the attitude of physicians towards CPGs.
Methods: The study was conducted on a random sample of 727 primary care physicians of the Basque Country. We designed a questionnaire based on the Theory of Planned

Behaviour (Ajzen, 1991) and the information obtained through a previous Delphi study, thus ensured the validity and consistency of data. Three rounds of the questionnaire were distributed electronically via e-mail and the last round was sent by postal mail. The questionnaire consisted of 45 items with categorical response format in a seven points scale, grouped into dimensions: Results of belief, Effectiveness, Assessment results, Subjective norms, Attitude, Power, Intent and Generalization. The sociodemographic variables were analysed and a psychometric analysis was carried out. The following key issues were considered: grouping of items, estimation of the reliability for each of the dimensions, analysis and refinement of items and grading given by physicians. The analysis of the items according to the criterion of homogeneity and consistency, the reliability is considered and evaluated to validate the factorial dimensions. Each dimension of attitude toward GPC was the score of the subjects.
Results: The response rate was 59.1%, 59.2% were women and the average age was 46.9 years. Most of the questionnaires (82.8%) were completed by e-mail. The questionnaire was composed of 45 items related to 8 dimensions. Cronbach alpha were calculated to measure the reliability of the questionnaire and the values ranged between 0.494 for the dimension of Perceived Control (power) and 0.849 for the dimension of Attitude. Factor analysis was performed by means of Principle Components Analysis and varimax rotation. The correlation matrix complied with the established quality criteria and showed a determinant of 1.69E-006; KMO = 0.917. Based on the results of Bartlett's test, the nule hypothesis was rejected with a significance of 0.000.
Conclusions: The attitude questionnaire constitutes a valid method to explore the prospects of physicians towards the CPGs.

P22
DOES THE METHODOLOGICAL QUALITY OF EVIDENCE BASED CLINICAL PRACTICE GUIDELINES DIFFER FROM NON-EVIDENCE BASED GUIDELINES?

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Background: Clinical practice guidelines are evidence based if (1) they are drawn from a systematic search of primary and secondary literature, (2) their core recommendations are linked to the underlying literature and (3) also to a Level of Evidence (LoE) or Grade of Recommendation (GoR). These criteria are described in Domain 3 *Methodological rigour of development* of the German Instrument for Methodological Guideline Appraisal (DELBI). DELBI contains additional criteria for the appraisal of methodological quality in other domains.
Purpose: We investigated how far evidence based guidelines display greater methodological quality than non-evidence based guidelines, also applying the criteria of other DELBI domains.
Methods: A systematic search for asthma and COPD guidelines was undertaken. The 3 evidence base criteria indicated above were used to investigate whether the identified guidelines were evidence based.
Using DELBI, the standardised values for the following domains, 1: Scope and purpose, 2: Stakeholder involvement, 4: Clarity and presentation, 5: General applicability and 6: Editorial independence, were determined. The results of evidence based and non-evidence based guidelines were compared using a t-test for equality of means.
Results: We identified 17 evidence based asthma guidelines (COPD 15) and 24 non-evidence based asthma guidelines (COPD 13). All guidelines displayed methodological flaws in various areas. Overall, the evidence based guidelines achieved better standardised domain values than the non-evidence based in all domains investigated.
The only exception was evidence based COPD guidelines, which displayed poorer standardised domain values than the non-evidence based COPD guidelines in Domain 6: Editorial independence.
Discussion: Evidence based guidelines differ from non-evidence based guidelines not only in Domain 3. Even in all other investigated domains, they generally possess a higher methodological quality. The evidence base of a guideline can therefore provide information on the overall methodological quality of a guideline.

P23
NATIONAL GUIDELINE FOR INDIVIDUAL PREVENTION OF CARDIOVASCULAR DISEASE The Introduction of GRADE

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Background: Individual risk assessment and treatment decisions for primary prevention of cardiovascular disease have been introduced both in primary and specialized healthcare. However, no agreement existed on treatment priorities and decisions between these two levels of care and a national guideline was needed. The evidence for individual lifestyle changes and pharmaceutical treatment was difficult to compare using *conventional* grading systems. GRADE was introduced to facilitate a more flexible and thorough way to evaluate and present the quality of the evidence and the strength of recommendations.
Purpose: To introduce Grade as system to evaluate the quality of evidence and the strength of recommendations in a national guideline.

Method: A systematic evaluation of the scientific evidence was performed using the GRADE approach. Furthermore, a health economy analysis was performed. With this as a background, recommendations concerning differentiated risk assessment and treatment decisions were established. The recommendations were divided into strong or weak based on the evidence concerning treatment effect and eventual harm, analysis of health economy and ethics.
Results: Documentation concerning lifestyle changes and pharmaceutical treatment was considered. Due to time limitations, documentation concerning lifestyle changes was not graded explicitly according to GRADE. Documentation of pharmaceutical treatment was graded according to GRADE. Taking into account risk assessment, health economy and ethics the recommendations were formulated. Recommendations concerning lifestyle changes were all graded as strong because they were considered to be of low cost and caused no harm. Recommendations concerning pharmaceutical treatment were graded as strong or weak according to GRADE after evaluation of quality of evidence, risk of harm, health economy and ethics.
Discussion: In our national guidelines, recommendations have previously been graded according to strict rules for type of evidence. GRADE made it possible in a flexible and transparent way, to evaluate the scientific evidence, health economy and ethics connected with each recommendation.

P24

ADDRESSING EQUALITY ISSUES IN CLINICAL GUIDELINES

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Background: Reducing inequalities in health associated with socioeconomic status is a clear priority for the current UK government. These inequalities arise from various forms of prejudice and discrimination and the UK government is progressively using legislation to eliminate unlawful discrimination on grounds of race, disability, age, sex and gender, sexual orientation and religion or belief and to promote race and disability equality and equality of opportunity between men and women.
Organisations responsible for producing evidence based clinical guidelines have an important role to play in reducing inequalities in health. In the UK, all public sector organisations are required by legislation to eliminate unlawful discrimination and in some cases, to promote equality of opportunity.
Purpose: To compare existing methods for addressing equality issues in the development of clinical guidelines in developed countries and to present preliminary findings on the impact of newly developed methods on guideline development for England and Wales.
Methods: A review of international clinical guideline methodology to identify, describe and compare methodologies for addressing equality issues and to assess the impact of newly developed methods in England and Wales 6 months after their introduction.
Results and Discussion: National clinical guideline methodologies from a number of developed countries including Canada, the USA, New Zealand and Australia were reviewed. A guide to addressing equality issues in clinical guidelines in England and Wales was developed in early 2009 and presents a transparent and comprehensive approach for considering equality issues at each of the guideline scoping, evidence assessment and recommendation development stages. The impact of these methods on clinical guidance development in the 6 months since their inception will be presented.

P25

PUTTING PREVENTION INTO PRACTICE
The Canadian Task Force on Preventive Healthcare

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Background: The healthcare system is increasingly burdened by an aging population with increasing numbers of individuals being diagnosed with multiple chronic conditions. This burden reinforces the need for evidence-informed practice. The Canadian Task Force on Preventive Healthcare is a collaborative knowledge development and exchange initiative that can support connections between primary care and public health programs as important resources for prevention.
Purpose: To increase awareness and knowledge about the renewed Canadian Task Force on Preventive Healthcare among guideline development organizations, researchers and health professionals.
Methods: The Public Health Agency of Canada (PHAC) has established a renewed Canadian Task Force on Preventive Healthcare (CTFPHC). The purpose of the Task Force is to lead the development and dissemination of evidence based clinical practice guidelines and recommendations to support preventive primary care. Guidelines will be developed by an impartial and unbiased panel, providing credible third party advice.
Results: The Task Force Scientific Panel is comprised of 10-12 independent experts and leaders representing fields of clinical primary care and public health, evidence syntheses, evidence-informed decision making processes and knowledge transfer and exchange research. The Task Force operations are supported by a team of professionals in PHAC as well as a university-based evidence synthesis centre responsible for developing systematic evidence reviews to inform guideline and recommendation development. This poster provides an overview of the Task

Force's purpose, operating structure, priority setting and guideline development processes as well as key partnerships to support coordination, dissemination, implementation support and evaluation.
Discussion: The Task Force will help address the need for streamlined access to credible, up-to-date and relevant evidence to support primary care practice and will support the development of prevention tools and activities to aid implementation of practice guidelines.

P26

GUIDELINE «RECOMMENDATIONS FOR THE PROMOTION OF THERAPEUTIC ADHERENCE IN THE TREATMENT AND METABOLIC CONTROL OF TYPE 1 DIABETES MELLITUS IN ADOLESCENCE»

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The therapeutic adherence (TA) for a patient with diabetes mellitus (DM) is a difficult goal, especially in the adolescence. Facing this reality and the prevalence of type 1 DM (DM 1) in the adolescence, some authors re-enforced the development of guidelines in the intervention of healthcare professionals, for the promotion of TA within the adolescents with DM 1, ensuring that the information is passed through based on the most updated scientific evidence.
The main purpose of this academic investigation was to develop scientific evidence (guideline) based on recommendations to promote TA in the treatment and metabolic control of DM 1 in adolescence. The basis was the elaboration of a guideline whose recommendations, directed to the healthcare professionals, came from the adaptation of existing interventions of guidelines already in place.
The methods focused on the research of guidelines that approached DM 1 in the adolescence. There were defined databases, terms and keywords to search the guidelines and defined selection criteria, taking into consideration the aims of the investigation and the guidelines adaptation rules. This search resulted in a set of guidelines that were assessment by AGREE, three guidelines were selected. Its recommendations came to be adapted, going through a selection process, to ensure that they included strategies promoting TA and allowed the adaptation to the Portuguese reality/resources.
Thus, was built a set of recommendations distributed through four categories, according to the behavioral and educational interventions that promote TA: education, communication and counseling; the patients' involvement in the treatment/management of the illness; simplification of the insulin regimens and glycaemic control; promotion of well-being and self-esteem.
The proposed guideline is an instrument that provides recommendations based on scientific evidence, for the promotion of TA within adolescents with DM 1, promoting the uniformization and improvement of cares.

P27

PATIENT INVOLVEMENT IN FINLAND
Experiences of Patient Organization Collaboration in Guideline Development and Implementation

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Background: It is suggested that the stronger the patient involvement in guideline development is the more probable the implementation of guideline is.
Purpose: We wanted to analyze the following topics: 1.What are the key issues of the disease that the patients want to have answers in the lay version of a guideline? 2. How the patient organizations can be involved in the guideline production and implementation?
Methods: A web based questionnaire was sent to 45 representatives of patient organizations. There were questions about the guidelines and the use and usability of their lay versions. Also the most important ten issues for the patient were asked. Results of the questionnaire were presented and further developed in a half-day workshop with patient organizations.
Results: Patient organizations can utilize original guideline and lay version in their own work. Key issues of each part of lay version were defined. Future plans for collaboration methods were planned. These were: In the guideline updating process patient organizations introduces 10 most frequently asked questions to the guideline group. Patient organizations regularly make a statement on updated guidelines of their own field. Regular meetings with the patient organizations are held.
Discussion: Further development of the guidelines needs active patient organization involvement and understanding the differences and needs of both patient and professional guideline. Role of patients and patient organizations in guideline promoting process is evident.

P28

INSIDE FRENCH CLINICAL PRACTICE GUIDELINES' QUALITY

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Background: Clinical practice guidelines (CPGs) have the potential to improve healthcare. To be accepted as a reliable and valid tool whose implementation leads to the desired outcome, guidelines should have a rigorous development process.

Purpose: To describe the quality of French CPGs.
Method: All CPGs (n = 23) submitted between September 2008 and April 2009 for appraisal by an independent committee [*Comité de validation des recommandations* (CVR)] were independently reviewed by at least 2 CVR members using a version of the AGREE instrument adapted to the French context. The instrument consists of 26 items ranked on a 4-point Likert scale. Of these, 25 are organized into 6 domains and one item gives the raters' global judgment on CPG quality. The decision on whether to approve the CPG is taken during a once-monthly meeting after a debate and a vote. A standardized score, ranged from 0 to 100%, was calculated for each domain.
Results: Overall high quality score were for the *scope and purpose* (median = 68.9%; interquartile range [IQR]: 63.2, 82.4), and «clarity and presentation» (median = 61.1%; IQR: 51.7, 76.4). The applicability (median = 20%, IQR: 11.4, 28.9) and external validity (median = 33.3% IQR: 15, 55.6) had the lowest scores. The median global judgment was 50% IQR 33.3% to 66.7%. Twelve CPGs were approved by the CVR (9/12 from our institution and 3/11 from professional societies). Approved CPGs had significantly higher score on rigor of development than rejected CPGs (60.8% *vs* 37.0%; $p = 0.02$), editorial independence (54.2% *vs* 36.7%; $p = 0.03$) and external validity (40% *vs* 16.7%; $p = 0.04$).
Discussion: Quality of French CPGs is modest in general, but for certain quality domains, experienced organizations have higher *scores*. Training aimed at improving the quality of guidelines should be developed to encourage and support professional societies to develop guideline in compliance with quality standard.

P29
EFFECT OF INCORPORATING DIAGNOSTIC IMAGING GUIDELINES INTO A COMPUTERIZED ORDER ENTRY SYSTEM

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Background: The Canadian Association of Radiologists' (CAR) *Diagnostic Imaging Referral Guidelines* have been incorporated into a computerized order entry system (CPOE). The physician orders an imaging study and provides clinical data using structured lists of clinical indications. If the imaging study is not consistent with the guidelines based on the clinical information provided, the physician gets a decision prompt recommending no imaging or a different imaging study.
Purpose: The purpose of the projects reported here is to determine if a CPOE with decision support will improve physicians' ordering of diagnostic imaging.
Methods: The CPOE was initially tested at the Children's Hospital in Winnipeg between October 2006 and August 2007 (Children's I). It has been running there ever since then, and the data between September 2008 and April 2009 have been analyzed (Children's II). The CPOE was also tested in a rural family practitioner clinic from November 2008 to May 2009 (Steinbach). Physician compliance with the decision support for the three sets of data are as follows:

PROJECT	TOTAL ORDERS	INAPPROPRIATE ORDERS	ADVICE ACCEPTED
Children's I	8,757	957	19 (2%)
Children's II	8,547	954	67 (7%)
Steinbach	834	84	23 (27%)

It appears that physician compliance has improved at the Children's Hospital. There also appears to be significant differences in compliance between different physician populations, in this case a specialist group compared to a group of family physicians.
The results of these three projects can serve as a basis for important future work including:

1. Using the quantitative information about physicians' utilization of diagnostic imaging available in the software to implement and compare interventions to improve their utilization
2. Undertaking qualitative studies to determine the reasons for change in physician's compliance with the CPOE over time and the differences between specialists and family practitioners in compliance.

P30
SCIENTIST KNOWLEDGE TRANSLATION TRAINING
Developing Knowledge Translation Plans for Research

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Overview: A well-developed knowledge translation (KT) plan is emerging as a research proposal requirement for health research in many countries, and there is greater attention to research utilization and research impact. The SKTT© training course was developed on the premise that scientists are agents of change in creating research impact, promoting research utilization, and ensuring their research findings reach the appropriate audiences. There is a skill set surrounding KT practice, and it is these competencies that the training course was designed to impart.
Target audience: SKTT training is appropriate for scientists across all scientific pillars, basic, clinical, health services, and population health, and can be useful for non-scientist audiences such as KT specialists.
Background: The SKTT training was developed and evaluated through research funding from the Canadian Health Services Research Foundation through a research initia-

tive seeking to examine the role of knowledge brokering in healthcare in Canada. An evaluation was undertaken with 77 scientists in the Hospital for Sick Children Research Institute who participated in four offerings a 3-module course between August 2005 and June 2007. A total of 81 participants started the course and 70 (86.4%) completed. At follow-up, scientists reported good-to-excellent understanding of KT relevance, KT models, effective KT practice, plain language writing, developing a KT plan, and the user context. They moved from a pre-contemplative state of change at baseline to a maintenance stage of change by 6-month follow-up, and there was a reduction in perceived barriers to KT practice from baseline to 6-month follow-up, specifically with respect to knowing who to engage, knowing how to engage, recognizing when findings were ready for translation. More participants applied for a grant with a KT plan at 6-month follow-up compared to baseline.

P31

PRESENTING AND REPORTING NETWORK META-ANALYSES IN CLINICAL GUIDELINES

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Network meta-analysis (NMA) and mixed treatment comparison (MTC) are methodologies that are increasingly commonly used in medical research. MTCs synthesise direct and indirect trial data. NICE increasingly uses these methods to aid decision making processes for its guidance. Whilst reporting standards for many types of studies exist (here reference CONSORT, STROBE etc.), NMAs are reported in different way and thus it can be difficult for users to interpret NMAs. When informing guideline development, it is important to achieve a valid and consistent approach to reporting these new methods.

This poster aims to present and contrast different approaches to reporting NMA. A systematic literature search will identify existing reporting standards of NMAs and these will be compared for consistency. Based on our findings, initial suggestions for reporting NMAs in clinical guidelines will be formulated and illustrated by NICE clinical guidelines that have used an NMA methodology.

Our initial review failed to find an agreed standard for reporting NMAs. The relevant guidelines reviewed presented a visual representation of the network of evidence, which is accepted by NICE. In both cases, direct and indirect treatment comparisons were identified and the number of trials in each comparison stated. There was variability in the following: a) study selection criteria; b) the diagnosis and measurement of incoherence/inconsistency; c) the estimation of credible/confidence intervals; and d) the assessment of goodness of fit (e.g. residual deviance).

As with any MA, methods of synthesis and the appropriateness of the inclusion or exclusion of studies has to be described. Full documentation and justification of structural assumptions and data inputs should be provided. When there are alternative plausible assumptions and inputs, sensitivity analyses of their effects on model outputs should be undertaken. The poster will present suggestions on reporting NMAs in further detail.

P32

PROSPECTIVE COMPARISON OF THREE DIFFERENT METHODS OF GUIDELINE DEVELOPMENT FOR TREATMENT OF ACTINIC KERATOSIS

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Background: Actinic keratosis is a pre-malignant skin disease with the possibility to develop into squamous cell carcinoma. There are multiple treatment options, varying in (cosmetic) result and side-effects. Therefore a Dutch guideline is desirable. Over the last decades the way to develop guidelines has changed from pure consensus-based by experts to evidence based. A search for the best available evidence in literature is obligatory nowadays. However, consensus is still important because questions often remain unanswered by evidence from literature alone. Today it is more or less standard practice in Holland to develop guidelines with a working group following an evidence based approach in multiple sessions. A more consensus-based approach could be quicker (fewer sessions), as to keep abreast with practical developments and motivates working on guidelines. However, it is questionable whether quality is not affected.

Purpose: to examine if the comparison of different guideline development methods results in variation of recommendations for actinic keratosis.

Methods: a prospective study between three methods of guideline development. Each group receives the same set of articles based on the results of an evidence based literature search. Each group separately formulates recommendations. Workgroup 1 follows the standard structured evidence based approach with multiple sessions. Workgroup 2, in composition as homogeneous with Group 1 as possible, formulates recommendations in a two day conference, quite similar to the Consensus Development Programme (CDP) of the National Institutes of Health (NIH). Group 3 conducts a systematic review and an independent expert formulates recommendations. The three sets of recommendations are compared by an expert in qualitative research. Differences are described with Workgroup 1 as standard. Factors attributing to possible differences will be identified and described.

Results: study in progress.
Discussion: a prospective comparison has never been conducted. We would like to discuss the methods, blinding and homogenisation in further detail with the conference visitors.

P33

EVIDENCE BASED TREATMENTS IN THE REHABILITATION OF PATIENTS WITH DEPRESSION

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Background: In recent years, the importance of guidelines increases continuously, also in the field of rehabilitative healthcare, where process guidelines are being designed for various indicational groups.
Aim: The goal is to collect and evaluate the evidence for various treatment options for depression in order to establish a basis for the current development of a process guideline.
Method: In order to identify evidence based treatment elements, first a comprehensive investigation of guidelines was conducted. 13 selected guidelines were then assessed with regard to aspects of methodological quality and evidence based treatment elements. Subsequently, literature searches were conducted for residual treatment elements. For the literature search, a hierarchical approach was chosen: At first, meta-analyses and systematic reviews were viewed. In case when there was still a lack of evidence for specific, potentially relevant treatment elements, the search was expanded to the level of primary studies. All selected reviews and primary studies then underwent a standardized assessment especially regarding methodological quality. Evidence grades were allocated to treatments.
Results: Thereby, several treatment elements with an adequate level of evidence were identified: Psychotherapeutic interventions, marital/couples/family therapy and counselling, inclusion of family members, psycho education and exercise, problem solving therapy, guided self-help, and behavioural activation treatments. On the basis of this complementary literature search, various other evident interventions could be identified within the following areas: relaxation techniques, improvement of social competence, occupational therapy, art therapies (music, movement/dance therapies), body-oriented therapies and massage therapy.
Conclusion: In summary, it was possible to assign different levels of evidence to the various treatment elements for depression. Based on the results of this literature search, a next step in the development of a process guideline for the rehabilitative treatment of patients with depression will be the integration of experts in the field of rehabilitation.

P34

IMPLEMENTATION OF CLINICAL GUIDELINES
Which Knowledge Base for the Interventions?

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Background: Relevant implementation research exists for many professions. In a pilot project, a new Norwegian clinical guideline for people with concurrent mental disorders and substance use disorders will be implemented. When planning the project, we found the implementation research done on healthcare workers and patients only to be of limited benefit as a knowledge base.
Purpose: To assess whether valid implementation research including different professions, gives a larger armamentarium of implementation interventions, compared to implementation research on healthcare workers only.
Methods: We compared the conclusions and scope of the implementation research summarized in *Implementation Research: A synthesis of the literature,* made by the *National Implementation Research Network (NIRN)*, with the systematic reviews in *Effective Practice and Coordination of Care (EPOC)* in The Cochrane Library, and *Improving patient care* (IPC) (Grol R et al). The comparison was done by mapping the conclusions using broad categories: a) only present in one of the sources, and b) present in both, with or without different conclusions.
Results: The seven core components in the approach of NIRN, which includes research on many professions, overlap only partly with the «healtcare and patients» approach of the EPOC and IPC. The overlapping areas are a) education, b) evaluation of healthcare workers and c) some of the interventions on a systems level. Only NIRN includes research on selecting staff, couching, and on the evaluation of the implementation program itself while the project is ongoing. EPOC and IPC includes research on a wide range of «top-down» interventions, which is not present in the summary of NIRN.
Discussion: When selecting implementation interventions, the knowledge base is considerably larger when research done in other professions than healthcare workers is included. Implementation research including healthcare workers and patients only might be too scarce to serve as a sufficient base for selecting implementation interventions.

P35

QUALITY ISSUES IN LITERATURE SEARCHING

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Target group: Information professionals, clinicians and/

or managers involved in literature search services.
Structure and content: How do we define 'quality' today in relation to literature searching for guideline development? What is 'good' and what is 'good enough'? How might we improve our services, and how might we work together to ensure quality? We will present quality improvement methodologies and techniques as they might be applied to literature search services. We will also place in context existing initiatives such as the CoCanCPG benchmarking exercise and PRESS.

P36

DEVELOPING METHODS FOR APPRAISAL OF CONTENT QUALITY OF CLINICAL PRACTICE GUIDELINES

Checking Consistency of Clinical Practice Guidelines Recommendations

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Background: The content quality of a CPG greatly influences its acceptance by doctors and decision makers. Central to this is clear linking between guideline recommendations and underlying literature and the appraisal of this literature by assigning a Level of Evidence (LoE).
Purpose: As part of the development of a methodology on appraisal of CPG content, our aim was to test whether recommendations in evidence based CPGs were supported by appropriate literature citations and the LoEs assigned were traceable.
Methods: A systematic search for evidence based CPGs on breast cancer and obesity was conducted (CPG databases, Medline, EMBASE; German and English language publications; from 2005). CPG recommendations on patient information, psychosocial care and certain aspects of diagnosis, drug and surgical therapy were extracted along with their literature citations and LoE. The abstracts of the cited literature were compared with the recommendations and LoE. Full texts were randomly checked, also where uncertainties existed.
Results: In total, 23 breast cancer and 10 obesity CPGs were included. 203 recommendations with 552 assigned citations were extracted and checked. Only a few recommendations were assigned inappropriate literature. In recommendations on patient information and psychosocial care, the patient populations in the cited literature often did not correspond exactly to the patient target group in the CPG. LoE assignment was generally traceable. However, if several literature citations were linked to one recommendation, it was not always possible to ascertain which LoE was assigned to the individual citations.
Discussion: The literature cited in evidence based CPGs generally appears to support the relevant recommendations and assignment of LoE is usually traceable. Checking the consistency of CPG recommendations can contribute towards appraisal of the content quality of CPGs. However, the full text was often required for obtaining information, which is time-consuming. Thus, criteria must be defined to establish when this is necessary.

P37

DOES THE DEVELOPMENT PROCESS OF CLINICAL PRACTICE GUIDELINES INFLUENCE IMPLEMENTABILITY?

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Background: As partner in an international project on cancer clinical practice guidelines (CPGs) entitled *Coordination of Cancer Clinical Practice Guidelines* (CoCanCPG), the German Institute for Quality and Efficiency in Healthcare (IQWiG) has the task of revising the ADAPTE manual for the adaptation of CPGs in line with the organisational framework conditions of the CoCanCPG project. This raises the question whether adapted CPGs differ from *de novo* CPGS in their implementability.
Purpose: The aim was to identify factors in the CPG development processes of adapted and *de novo* CPGs, which could potentially affect implementability.
Methods: After a literature search had been carried out in Pubmed and Google using the keywords: *adaptation of clinical practice guidelines*, *implementation* and *implementability*, both German and English language literature were included for further assessment. Manuals by CPG developers were also included. The methodological procedure of the adaptation process according to ADAPTE was compared with the procedure for developing *de novo* CPGs. This highlighted factors in both processes that could affect the implementability of CPGs.
Results: From comparing the processes of adapting existing and developing *de novo* CPGs, it became clear that adaptation was as time-consuming as developing new ones. Major problems affecting the implementability of adapted CPGs were the possible loss in evidence base and/or context reference. During the adaptation process and *de novo* development, timely recognition and removal of obstacles/errors was vital in order for the CPGs to be implementable. The methodological/content quality of both CPG types also had a fundamental influence on implementability.
Conclusion: It was concluded from the literature examined that, when considering the methodology of the processes, adapted and *de novo* CPGs do not necessarily differ in implementability. This particularly applies if both types of CPG fulfil requirements such as evidence base, context reference and good methodological/content quality.

P38

CULTURAL SAFETY

A Critical Cultural Lens in the Development of a Best Practice Guideline

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Background: Many countries reflect multi-cultural populations with complex and dynamic needs. The development of an evidence based best practice guideline that addresses, honours and respects cultural variations can be a challenge.
Purpose: An inter-professional panel developed a Best Practice Guideline titled, an *Assessment and Care of Adults at Risk for Suicidal Ideation and Behaviour* to meet the needs of a multi-cultural society. The concept of cultural safety was used as a lens to inform the recommendations in this guideline.
Method: The panel conducted a systematic review of research for suicide prevention. After the team ranked the evidence from Levels I through IV, key community advisory panel and stakeholders representing diverse cultural perspectives, reviewed the guideline and contributed to revisions.
Results: Of the 26-guideline recommendations (14 practice, 2 education, and 10 organization and policy), one recommendation specifically addresses the need for cultural safety in the care of adults at risk for suicide. However, cultural safety informed the development of practice vignettes, assessments and appendices. It was used to guide practitioners through self-reflection to understand the relevance of both the client and healthcare provider as cultural beings. Importantly, cultural safety also focuses attention on the sociopolitical, economic and historical context of peoples' lives that shape health and healthcare, such as poverty as well as focusing attention on relationship and power dynamics.
Discussion: This best practice guideline provides a unique and comprehensive approach to cultural inclusiveness. It will augment the ability of health providers to identify people at risk for suicide and provide interventions that are culturally safe.

P39

CLINICAL INDICATORS FOR ACUTE CORONARY SYNDROME FROM FIRST SYMPTOMS UP TO 1 YEAR FOLLOW-UP

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With 100 000 French patients per year and a 1-year mortality rate of 13 %, acute coronary syndrome (ACS) constitutes a high-profile public health issue.
Against this background, HAS is developing a set of clinical indicators (CIs) shared by all French professionals for the improvement of ACS quality of management throughout the care pathway.
A Task force of health professionals makes prospective analysis of the real life patient care pathways from the onset of the first symptoms up to one year follow-up. Key points of care and non-optimal steps were identified and strongly considered. Published ACS-related quality criteria/indicators and French clinical experiences of indicator implementation were reviewed; CIs were finally built according to their clinical relevance defined by both literature analysis and use in clinical practices, and then collected in the different clinical settings to spot optimal pathways.
Thirty consensual CIs were defined, in 3 consecutive phases of the care pathway: 7 CIs for the first phase namely *from the onset of the symptoms up to reperfusion*; 6 CIs for the second phase *from reperfusion to hospital discharge* and 16 CIs for the third phase *from hospital discharge up to one year follow-up*, including the *1-month mortality*. CIs are specifically developed to improve clinical practice; some of them could be used for performance comparison and/or benchmarking between healthcare teams, hospitals or pathways.
Feasibility and efficacy of the shared CIs for the 3 consecutive phases are confirmed by the first implementations. Indeed, practice has been improved in terms of higher reperfusion rates, decrease in coronary events and a better quality of life. In conclusion, ACS shared CIs should be considered as quality landmarks throughout the care pathway, providing health professionals and patients with enlightened information.

P40

IMPACT OF AN ACTIVE DISSEMINATION STRATEGY FOR CLINICAL PRACTICE GUIDELINES ON ACUTE CORONARY SYNDROME IN MANILA DOCTORS HOSPITAL

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Background: Studies have shown that increased adherence to guidelines yielded better survival and clinical outcomes like mortality rates, days of hospital stay and re-MI or refractory angina in ACS patients.
Purpose: 1) To determine the impact on clinical outcomes – ICU stay, total hospital stay and mortality rates in patients with acute coronary syndrome (ACS) after active implementation of ACS clinical practice guidelines based on the ACC-AHA guidelines, 2) to compare the practice

patterns in ACS and clinical outcomes in PINAS I and PINAS II studies.
Methodology: This study, conducted from January to August, 2007 was a comparative study to the post-dissemination phase (Phase III) of the PINAS I study, conducted from October, 2005 to November, 2006 in the same hospital. The study implemented an active dissemination strategy of the ACS Clinical Practice Guidelines through a checklist as compared to the passive dissemination strategies of PINAS I. Compliance to guideline recommendations and the defined clinical outcomes were determined and compared in both studies using the Z test.
Results: PINAS II included 115 patients while PINAS I (Phase III) had 120 patients. Compliance to diagnostic examinations like the cardiac markers differed significantly – troponin determination increased to 100% from 94.2% (p = 0.014) and CKMB determination from 75% to 100% (p = 0.000). There were no significant difference in the compliance rates for stress test, coronary angiogram, lipid profile determination and 2D echocardiogram in both studies. In PINAS I Study, the usage rates of beta-blockers, ACE inhibitors, statins, nitrates, aspirin, clopidogrel and anticoagulant were 84.8%, 70%, 89.2%, 97.5, 60%, 50%, and 90% which became 86.9%, 70.4%, 93.9%, 86.9%, 72.1%, 40% and 92% respectively in PINAS II.
Conclusion: Compliance rates to many class I recommendations (especially the non-invasive interventions) were high and did not differ significantly in both studies. PINAS II maintained the low in-hospital mortality rate (2.6%) which PINAS I (Phase III) previously demonstrated. No significant differences were also seen in total hospital and ICU stay.

P41
FACTORS ASSOCIATED WITH THE USE OF GUIDELINES IN NURSES' AND PHYSICIANS' GROUPS

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Background: Various factors such as characteristics of guidelines, professionals, patients and environment influence use of guidelines. Our previous results show that self-reported use of guidelines differs between professional groups and healthcare sectors.
Purpose: Here we explored the dimensions of the Attitudes towards guidelines scale (AGS, Elovainio & al, 1999) which were associated with self-reported use of guidelines in physicians and nurses in Finnish public healthcare.
Methods: A web-mail survey was carried out between November 2006 and May 2007 in two hospital districts and one rural primary care centre.
We measured general utilisation of clinical guidelines by using a Likert scale varying between one (not at all) and seven (for every patient). Attitudes were measured by the AGS including dimensions; general attitudes, reliability, useful, lack of individual and team competence, lack of organizational competence, impracticality and bad access of guidelines. The scale was between one (totally disagree) and seven (totally agree). Multiple regression analyses were performed using the SPSS 15.0 software.
Results: The results of analyses in the physicians (n = 121) and nurses (n = 451) were substantially different. The strongest positive association for the use of guidelines was general attitudes in the physicians and usefulness of guidelines in the nurses.
The strongest negative association was lack of organizational competence in the physicians and poor availability of guidelines and lack of individual and team competence in the nurses.
Discussion: These results may be taken into account when targeting guideline implementation activities to different professional groups. The low response rate poses problems with applicability (response rate 36%) as does the relatively low explanatory fraction (R-squared of the regression models 0.26-0.27).
Reference: ELOVAINIO M et al: www.dsi.dk/projects/cpp/Monograph/DSI9905.pdf

P42
METHODOLOGY FOR SELECTING AND DRAWING UP INDICATORS FOR INCLUSION IN CLINICAL PRACTICE GUIDELINES

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Background: Implementation of Clinical Practice Guidelines (CPGs) can be facilitated if consideration is given, during the drafting stage, to including a specific section with proposed indicators.
Purpose: To describe the methodology used for selecting and drawing up indicators to enable implementation to be assessed. When designing indicators, account must be taken of the principal recommendations of the CPG as well as the data that will be needed to draw them up, including the source, feasibility of collection and clinical relevance of such data
Methods: The CPG working group was sent a list for preliminary selection of topics addressed in the CPG. After being drawn up, indicators were then individually assessed by adapting the RAND/UCLA Appropriateness Method. The group scored the indicators from 1 to 9 to assess their validity as quality indicators, and whether the information yielded justified its being recorded. At a subsequent group consensus meeting, indicators rated as *appropiate* (median over 6), *doubtful appropriateness* (median of 3.5 to 6) and as *inappropriate* (median of under 3.5) were reviewed.

Results: A total of 14 panellists participated and assessed 11 indicators of the Child & Adolescent Depression Guideline. In 9 cases, the indicator was deemed appropriate and in 2 cases, agreement was uncertain.
Discussion: Inclusion of indicators in CPGs can be viewed as a quality element. The methodology used enables consensus to be reached with the active participation of the entire drafting group. Proposed indicators are in all cases intended as a guide, and their interest and feasibility must be assessed locally.

P43
CLINICAL GUIDELINES IN THE NORDIC COUNTRIES

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Background: Nordic countries use clinical guidelines to support decision making in healthcare. Health challenges are similar, but approaches to guideline processing and aims differ. This study describes how guideline stakeholders, processes and strategies encompass evidence based medicine in Denmark, Finland, Norway and Sweden.
Methods: An Internet questionnaire was answered by a leading guideline professional in each country. Questions of organisational issues as well as those dealing with processes in guideline preparation, i.e. criteria for choosing a topic, implementation of a published guideline and Likert scales on relevance of stakeholders e.g. in implementation were included.
Results: Nordic countries have chosen either writing guidelines from the evidence themselves (Finland, Norway and Sweden) or remoulding existing guidelines from English speaking countries (Denmark and Norway). In Denmark, Norway and Sweden organisations responsible for guidelines have close connections to both government and healthcare system, but in Finland guideline organisation is independent locating at the medical society. All countries lean on evidence criteria originally outlined by large guideline clearinghouses, like Nice or SIGN, but use common EBM tools diversely. Guidelines serve slightly different tasks: Finnish guidelines are directed primarily to individual clinicians in addition health administrations and in other countries administrative aim is more visible. Finnish guideline organisation is actively equipping Implementation of guidelines with multiple web-tools and e-publishing as others rely mainly on healthcare organisations.
Discussion: Guidelines form a base for multiple electronic publications and tools like decision support solutions, but there is a need for more comprehensive approach in implementation noted by all countries. Different challenges will be discussed, like linguistic, technical, but also transparency of process needs to articulated, especially when using evidence adopted from other countries. These will be discussed in detail.

P44
ENCOURAGING THE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES AMONG DENTAL SURGEONS IN FRANCE

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Background: In 2008, the French Dental Association decided to test a Continuing Professional Development scheme for dental surgeons.
Purpose: To train and assess the performance of dental surgeons (*facilitators*) who will supervise a pilot test of the implementation by volunteer dental surgeons of professional standards based on clinical practice guidelines (CPGs) developed by the Professional Association.
Methods: 13 facilitators attended a 3-day seminar during which they learnt to coach dental surgeons in practice appraisal (clinical audits). They were provided with a ready-to-use kit. The objective was the implementation of 2 out of 4 standards: (i) patients dental records (mandatory), (ii) patient information and consent in private practice, (iii) medical device sterilisation, (iv) detection of dental and occlusal functional abnormalities in patients with temporary removable dentures and/or mixed dentures. The first step was a self-audit by all facilitators.
Results: Responses in the 1st round of the self-audit (April 2009) were stratified according to the percentage of criteria met (over 80%, from 51 to 80%, fewer than 50%). Compliance was best for sterilisation (40% – 40% – 20%) and records (55% – 20% – 25%), much poorer for patient information & consent (14% – 43% – 43%) and less good for the detection of functional abnormalities (< 50% compliance of all facilitators). Each assessment grid took about 1 hour to complete. Some facilitators had difficulties mastering the software provided.
Discussion: The first round of the self-audit revealed considerable room for improvement. The facilitators are currently implementing their improvement actions before a re-assessment in September 2009. They will launch the 1st round of the full-blown pilot test among 70 volunteer dental surgeons in October 2009. The measures that have been taken (supportive training of facilitators (cost approx. 10 080 euros), software provision, and a simple assessment method) should greatly facilitate CPG implementation.

P45

DISSEMINATION AND IMPLEMENTATION OF LOW BACK PAIN GUIDELINE

An Integrated Knowledge Transfer Approach

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Background: The Alberta Ambassador Program developed a clinical practice guideline (CPG) for the treatment of low back pain. An extensive and detailed plan was written to support the dissemination and implementation of the guideline.
Purpose: The purpose of the dissemination and implementation plan is to inform and positively influence the treatment of low back pain; that is, encourage and support adherence by primary care providers to the CPG.
Methods: A review of published literature helped design the dissemination and implementation plan for the Ambassador Program. The following sections are included in the plan:

1. Audience
   - Who are the target audiences
   - What is their state of knowledge
   - What are the potential barriers and facilitators to using the CPG
2. Content

   Is the CPG content written with implementability in mind consistent with evidence
   - What are the key messages
3. Strategies and Tactics
   - What strategies are likely to be most effective
   - What are the delivery mechanisms
   - What resources are needed
   - Who's responsible
4. Evaluation
   - How will the impact be measured

Results: The dissemination and implementation plan was completed and approved in November 2008 by the Program Advisory Committee. The guidelines were published in March 2009 and dissemination and implementation activities are currently underway. A Steering Committee oversees the implementation of the plan and tracks progress. The plan is continuously updated and adjusted.
Discussion: The success of the plan rests on having involved the target audiences and key stakeholders in the development of the guideline and in the development of pieces that support the guideline; such as patient information sheets. It also rests on the fact that best evidence was used to inform the strategies and tactics chosen.

P46

EVIDENCE BASED CLINICAL PRACTICE GUIDELINES IN JAPAN

A Movement of its Development and Revision

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Background: In Japan, the term *evidence based medicine* (EBM) was first introduced in an official report published by the Health Technology Assessment Working Group I of the former Ministry of Health and Welfare (MHW). In 1998, a report by the Health Technology Assessment Working Group II successfully drew attention on how the use of evidence based clinical practice guidelines (CPGs) may improve healthcare. Subsequently, the MHW (since 2000, Ministry of Health, Labour and Welfare: MHLW) is sponsoring the development of clinical practice guidelines for a series of high priority diseases. One decade later, the number of well-formulated CPGs reached over 70.
Purpose: We have examined those 70 well-formulated CPGs and turn around the ten-year history of CPGs development and revision for the future.
Methods: Both electronic and manual searches were conducted to retrieve existing CPGs. Out of the 400 retrieved CPGs, well-formulated ones were selected if they met the following criteria: defining clinical questions to be addressed, reviewing evidence, and determining grade of recommendation. The selected CPGs were analyzed comparatively to each other.
Result: Almost all of the 70 CPGs, which were selected as well-formulated ones, are mainly developed by academic societies, and 40 CPGs are commercialy published. We have supported more than 20 CPGs, and all 20 CPGs are included in the 70 CPGs selected. Each of them cited on average 600 references that include 150 Japanese literature citing. Only 3 of 70 CPGs are translated into English.

P47

IMPLEMENTATION OF INTERPROFESSIONAL EVIDENCE BASED PROTOCOLS IN FAMILY HEALTH TEAMS IN ONTARIO

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Background: The Ontario government has introduced the Family Health Team (FHT) initiative to reduce wait times and improve access to primary healthcare services. Members of fourteen FHTs affiliated with the University of Toronto came together to develop inter-professional evidence based tools in 6 clinical areas: diabetes, complex diabetes, depression, 18 month 'well baby' visit, childhood obesity and end of life care. Based on clinical practice guidelines, these tools were intended to establish capacity to develop, implement and evaluate targeted patient care programs that are team based (physician, nurse, pharmacist).
Purpose: This presentation gives an overview of the protocol development and implementation process, informed by the findings generated from the qualitative component

of a mixed-method evaluation designed to provide an examination of processes and outcomes.
Methods: Observational and documentary data were gathered on the protocol development and implementation processes. Interviews were conducted with 36 health professionals and community group members who participated in the creation and piloting of the protocols.
Discussion: The findings from the protocol development stage (phase 1) demonstrate the participants' enthusiasm for the focus on evidence and team-based care, the varied needs of the FHTs, the benefits of interprofessional and inter-organizational sharing, and the critical role of facilitation in advancing team care. The findings from the pilot implementation stage (phase 2) indicate the important role of champions and leaders in change, the varied emphases on 'evidence' and 'team' during implementation as well as the differing responses of FHT members to the protocols. The stage of FHT development, the nature of team dynamics, and organizational issues all impacted protocol implementation.
Results: The initiative succeeded in having an impact at various levels at participating FHT implementation sites. Research to examine the effectiveness of dissemination of the protocols to FHTs across the province of Ontario and its impact on healthcare outcomes will be completed in June 2009.

P48
DEVELOPMENT OF NATIONAL HEALTHCARE GUIDELINES IN AUSTRIA
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Background: The Austrian Health System is characterized by fragmentation of policy and financing. Therefore an institute for quality in the health system was founded to bridge the gap between different interests and to bring forward quality work in the whole health system. One of the first tasks of this institute is the development and implementation of so called 'Bundesqualitätsleitlinien', which means national transsectoral and transdisciplinal healthcare guidelines.
Purpose: The main aim is the implementation of evidence based integrated healthcare guidelines on a national level and the improvement of efficiency and effectiveness of the healthcare system.
Methods: The guideline work follows national and international evidence and experience under the principle of transparence and consensual multidisciplinar development. Established evidence, such as medical, social and other guidelines may be integrated in the development process and can be declared as part of the final guidelines.
Each guideline is developed, discussed and finally accepted by a panel of experts who represent main stakeholders of health system as well as health professionals and patients. While there are fixed members, such as federal ministries and patient representatives, the different health professionals are invited as required referring to the topic of the guideline.
Results: At the moment four national quality guidelines for chronic diseases are under development: COPD, Diabetes, Dementia and Parkinson's disease. Furthermore a guideline for hospital admission and discharge management is in progress. As the utilization of these guidelines in practice is not predictable yet, the implementation in some regional pilot projects is planned.
Discussion: The multidisciplinar and consensual approach leads to the challenge of achieving necessary compromises as well as high quality results. Furthermore there is no possibility to create and finance new structures any improvements have to be gained through optimized processes which limits the options and possibilities of the guidelines.

P49
DEPLOYMENT AND EVALUATION OF INNOVATIVE KNOWLEDGE TRANSLATION TOOLS FOR PHARMACY PRACTICE RESEARCH
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Background: The health and safety of populations can be improved by optimizing the use of medications and the roles played by healthcare providers. This requires policies and practices that ensure that the right medications and the right healthcare providers are in the right place, at the right time. For this to occur, the gaps between research, policy and practice must be reduced.
Purpose: Pharmacists are the third largest group of healthcare providers in Canada. Leading Canadian pharmacists have dedicated their careers to practice research that defines the most effective roles for pharmacists in improving population health outcomes. Knowledge Translation (KT) literature establishes that economic, human resource, health technology and drug therapy decision making processes depend on clear and concise research evidence that supports policy development.
Methods: The Canadian Pharmacists Association (CPhA) has launched two initiatives, *the Translator* and *Live Links* to support KT between pharmacy practice research and health policy. Each quarterly issue of the *Translator* selects four pharmacy practice research articles, summarizes them and highlights the health policy implications. *Live Links* is a quarterly e-bulletin that summarizes current international pharmacy practice research. This tool provides access to relevant peer-reviewed research and grey literature.
Results: *The Translator* has received a non-restrictive grant from Pfizer Canada. This public-private partnership has enabled the production of *the Translator* in both French and English, and its dissemination through face-

to-face meetings with key decision makers. Canadian pharmacy practice researchers utilize *the Translator* and *Live Links* for the dissemination of their research findings.
Discussion: Evaluation of *Live Links* and *the Translator* is underway. It is clear that in order for KT to be effective, partners must be engaged in the process and committed to knowledge uptake. Evaluations that gauge these and other indicators of success will be available November 2009.

P50
REVIEWING THE GUIDELINE DEVELOPMENT PROCESS
A Quest for Innovation and Sustainability
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Background: Clinical practice guidelines (CPGs) are a key component of National Breast and Ovarian Cancer Centre's (NBOCC's) leadership in information provision on breast and ovarian cancer in Australia. NBOCC's current methodology of CPG development is difficult to sustain in the rapidly changing environment of modern evidence based cancer care.
Purpose: To develop a strategic approach to CPGs by undertaking a mixed-methods review of NBOCC's guideline development process.
Methods: The guideline development process was reviewed using three complementary methods. Firstly, the current process was examined through structured discussions with internal staff and external individuals involved in developing recent NBOCC CPGs. Secondly, guideline manuals, methodology of other international guideline development groups, and literature on guideline development were reviewed. Finally, discussions were undertaken with experts and innovators in the field of guideline development in Australia and internationally. The results of these methods were used to develop recommendations and actions.
Results: There were benefits and challenges for each of the methods utilised, all contributing a unique perspective on current methods of CPG development. The structured discussions successfully identified numerous practical opportunities for improvement, however could be strengthened by using an independent moderator and maximizing the participants. International methodologies were best compared by the review of guideline manuals, although examples of organisations similar to NBOCC were limited. While discussions with innovators identified current issues and innovations in the guideline development process, not all were relevant and implementable in the local setting. NBOCC's experience may inform other guideline developers wishing to review their processes.
Discussion: The review of the CPG development process provided comprehensive information on methodologies used and resulted in recommendations to improve NBOCC development processes. Guideline development is an evolving methodology that requires ongoing flexibility. This project demonstrated that a multifaceted approach is effective in achieving a comprehensive review of CPG development methodologies.

P51
PREPARING GUIDELINES FOR MEDICAL DECISION SUPPORT
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Background: Guidelines cannot easily be translated to medical decision support systems. A lot of work is done to translate guidelines into formal languages but that does not solve some basic problems, such as the incompleteness of guidelines, the difficulty to produce guidelines without gaps and the dilemma of standardization needed for formal translation versus clinical practise which cannot be standardized completely.
Purpose: The purpose of this meeting is to form a special interest group (SIG) interested to develop a common approach.
Methods: We rewrote several guidelines before implementation in a decision support system. First we characterized the consultation moments in the disease process as *types of consultations*.
Decision support was worked out for each consultation-type separately. One of the decisions is to select the next consultation-type for the next consultation. In addition we filled in the *gaps* in the guideline based on clinical experience and grey literature. These additions were considered as temporary, waiting for clinical evidence. In- and exclusion criteria were defined for the recommendations. The same was done when the guideline had no clear preference for a diagnostic procedure or a therapy.
Results: Based on this approach guidelines have been implemented in systems for cardiovascular risk detection and management, diabetes detection, therapy and risk management.
Discussion: Guidelines were considered as starting points that needed explicit additions to be implementable.

P52
ROLE OF HIGH RESOLUTION SONOGRAPHY AND COLOR DOPPLER IN ASSESMENT OF BREAST NODULES AND ITS HISTOPATHOLOGICAL CORRELATION
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Purpose: Evaluation of breast lesions with High resolution sonography and colorDoppler in differentiating Benign and Malignant lesions and their pathological co-relation.

Methods: 106 patients were studied to evaluate the gray scale and Color Doppler features of the breast lesions. 123 breast nodules were detected. Patients presenting with complaints of breast lump, pain or nipple discharge were included. Final diagnosis was achieved by histopathological analysis.
Results: 123 breast masses were detected in 106 patients. The mean age was 36.48 years (range 15-74 years). The mean age of patients with benign lesions was 28.3 years and for malignant lesions 49.5 years.
Out of 106 patients, 6 (5.6%) had bilateral breast involvement. The right breast was more frequently involved as compared to the left breast with involvement of upper outer quadrant in about 54 (51%) patients. Sonographically, 68 (55.38%) nodules were classified as benign, 42 (34.12%) malignant and 13 (10.6%) indeterminate. Out of the benign masses, fibroadenoma was the most common, seen in 52 patients.
On Color Doppler, the flow in the benign nodules was seen mainly at the periphery with low to slightly increased resistive flow. Malignant nodules showed high resistance flow with penetrating vessels. Inflammatory masses showed low resistance flow at the periphery and central.
Histopathologically, 78 (63.4%) masses were benign and 45 (36.6%) were malignant. The most common benign lesion was fibroadenoma (57), inflammatory (8) and other benign lesions (13) which included benign fibrocystic disease, phylloides tumor, non-specific granulomatous disease, galactocele and lactating mastitis.

P53
CONTENT OF EVIDENCE SUMMARIES
Is There a Risk for Distortion of Evidence?
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Background: It is suggested that the stronger the level of evidence is the easier implementation is. However it is known that the guideline producers seldom analyse the level of evidence in respect of all topics or tables of contents of different topics.
Purpose: The aim of this study is to analyse how the level of evidence is scattered around different topics and how does it influence the guideline.
Methods: All available 93 Current Care guidelines with 3 687 evidence summaries were studied (February 2009).The guidelines were listed on basis of the subtitles relating to epidemiology, prevention, diagnosis, treatment, rehabilitation, follow-up and treatment level in healthcare. In addition subtitles relating to pharmacotherapy were listed. Each subtitle was classified by the level of evidence on a scale from A to D depending on the quality of the original studies.
Results: As expected the subtitle treatment represents 31% of all evidence summaries. Evidence summaries about pharmacotherapy cover 33% of treatment. The level of evidence of both treatment and pharmacotherapy fell mostly into levels A and B (58%).
Evidence summaries that focused on pharmacotherapy mainly related to subtitle treatment. To a lesser degree the pharmacotherapy evidence summaries related also to subtitles prevention and rehabilitation.
Discussion: This study clarifies that despite of beliefs 67% of treatment is however backed up by evidence other than pharmacotherapy. This gives a true possibility to promote also other treatments in guidelines. The results also show that it is easier to find A and B-level evidence about pharmacotherapy which shows the targets of interest in research. This might also reveal the question of what kind of research is more easily financed.
Based on the results future plans of activities for guideline development strategies and the balance between different treatment strategies should be discussed in guideline groups.

P54
DIAGNOSIS IN PRIMARY CARE
Example Using Data from a Clinical Guideline
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Background: Diagnostic test accuracy varies depending on the target condition it is used for, but also depending on the clinical presentation of the patient, the sex, age or other features of the patient, the results of prior tests, the person reading its results (based on the Cochrane handbook of systematic reviews of diagnostic test accuracy). It is therefore important to consider each of these factors when reviewing evidence on the accuracy of diagnostic tests to derive evidence based clinical practice recommendations.
Purpose: To re-review studies of diagnostic test accuracy used in a national guideline on the recognition and assessment of coeliac disease, and to determine whether consideration of the above factors, specifically that of setting, alters an assessment of the utility of the test.
Methods: We re-examined included studies to determine the setting in which the test(s) were evaluated. SROC graphs and pooled sensitivity and specificity estimates were produced by the subgroup of setting. Although pooling of data was not undertaken for the clinical guideline due to lack of consensus on the most robust method, we wished to explore whether such pooling showed any significant differences by setting.
Results: The results of the re-analysis will be presented. We will also present an exploration of how the different prevalence of coeliac disease in primary and secondary care populations, based on the best estimates, would affect the utility of the tests.
Discussion: There are many significant challenges and

issues related to direct and indirect evidence for diagnostic test accuracy in a primary care population. Guideline developers need to be aware of these and be able to take account of these when assessing and reviewing evidence of diagnostic test accuracy.

P55

FIRST STEP TOWARDS IMPLEMENTING BIOMECHANICAL ASSESSMENT OF THE KNEE INTO A CLINICAL CONTEXT

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Background: The economic burden of knee osteoarthritis is expected to rise partly due to the aging population and higher prevalence of obesity. A better understanding of the knee joint mechanical environment can provide clues for prevention and more effective rehabilitation treatments. As a first step towards improving care for knee OA patients throughout the continuum of care, biomechanical assessment of the knee was incorporated into the assessment of patients presenting knee OA in a local clinical setting.
Purpose: The logic model supporting the integration of the biomechanical assessment of the knee into the continuum of care of knee OA patients is presented here. Elements contributing to the adaptation of this knee OA model of care to the context of clinical practice are also presented.
Methods: *Logic supporting the knee OA model of care*: A literature review focusing on the validity of biomechanical measures for knee OA management was performed and key informant interviews were conducted to support the feasibility and pertinence of incorporating biomechanical assessment into knee OA management. *Adaptation of the model to clinicians' needs*: Feedback was obtained from focus group discussions targeting the clinical process.
Main findings: Output of the biomechanical assessment was barely interpreted by the primary care clinicians and had to be synthesized to meet the clinicians' needs. A lack of acceptance by some groups of primary care clinicians (e.g., physiotherapists) was observed.
Discussion and conclusion: Biomechanical assessment of the knee in a clinical setting was feasible but output had to be adapted to the clinical context. More effective knowledge exchange strategies should be used to include important stakeholders like physiotherapists. For implementation at a community level, the effects of the integration of the biomechanical assessment on intermediate and final health outcomes should be evaluated in the near future.

P56

INNOVATIVE GUIDELINE DEVELOPMENT
A Web Based Transparency for Expert Opinion Based Recommendations

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Background: A guideline is being developed describing the optimal organisation of the peroperative process: from the patient entering the operating complex to him/her leaving the operating room. Important aspects are safety checks, transfer of information and description of responsibilities. Because there is little scientific evidence, recommendations are mainly based on expert opinion. In those cases the consensus process is often less structured and transparent than when ample scientific literature is available.
Purpose: To find a method to structure the consensus process among the experts and to optimise insight in the development of recommendations.
Methods: Synmind is a web based method for discussion and decision making. A multidisciplinary working group (n = 10) developed a set of concept recommendations, which were discussed by a broader expert group (n = 23) on a web based forum using Synmind. Experts scored the importance of the recommendation on a 0-8 scale and provided their arguments. They were also invited to provide alternatives to improve the wording of the recommendations. Expert group members could react on arguments and could change their scoring after discussion.
Results: 19 of 23 experts participated actively in the discussion. Means and distributions of the scores reflected the importance of the recommendations according to the experts. Spider web graphs illustrated the distribution of opinions. All arguments were registered and will be analysed and incorporated in the guideline. Experts were encouraged to participate in the discussion several times during a period of four weeks. Reminders were sent to the non-responders three times during the four-week session.
Discussion: Synmind made it possible to structure the consensus process. Because all arguments are saved, the substantiation of the recommendations is more thorough and transparent than when based on minutes of live meetings. Other important advantages are that all opinions are heard and that members can participate from any place and at any time, which makes it an efficient tool. At the end the process will be evaluated with the expert group members.

P57
HOW TO CONVINCE PRACTITIONERS ON THE IMPORTANCE OF EVIDENCE
The Case of Venous Thromboembolism in Australian Hospitals

Sonja HOOD, Jodie CLYDESDALE, Amy GOODWIN, Tanyth de GOOYER, Zoe KELLY, Agnes WILSON, Susan PHILLIPS
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Background: Venous thromboembolism (VTE) is a major preventable cause of readmission and death in patients admitted to acute care hospitals. Measures to prevent VTE are consistently underused. Many patients at risk of VTE do not receive adequate prophylaxis. The choice of thromboprophylaxis involves a trade-off between risks and benefits, especially risk of bleeding versus risk of deep vein thrombosis (DVT) or pulmonary embolism (PE). For many clinicians this decision is not straightforward.
Since 2005, the National Institute of Clinical Studies (NICS) has run a national quality improvement VTE prevention program in public and private hospitals across Australia. Training (workshops, teleconferences, newsletters) and resources (implementation guides, VTE evidence summaries) were provided to hospital teams. This helped teams overcome barriers to VTE prevention and tailor strategies to address these barriers.
A major focus of the program was to convince clinicians to use evidence to inform their VTE prevention practice. This presentation will discuss the different strategies used by the 76 hospital teams who have participated in the program.
Purpose: To describe the methods used by hospital teams to inform clinicians and patients of the importance of VTE prevention evidence.
Methods: The data in this presentation were drawn from site visits, team activity surveys, and feedback through workshops and teleconferences.
Results: Teams used a wide range of formal and informal methods to convince clinicians about the value of using evidence in their decisions about thromboprophylaxis. These included formal and informal education sessions, data on current practice, opinion leaders and printed information. The choice of strategy related to available resources, specific needs of the setting, and the hospitals' and clinicians' readiness for change. Teams focussed on conveying evidence about the incidence and impact of VTE, and the evidence for different thromboprophylactic options.
Discussion: VTE prevention evidence is not straightforward, and the best way to convey this to clinicians relates to context, resources, learning needs, and readiness to change.

P58
NATIONAL GUIDELINES, LOCAL IMPLEMENTATION
Prevention of Venous Thromboembolism in Australia

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Background: Venous thromboembolism (VTE) is a major preventable cause of readmission and death in patients admitted to acute care hospitals. Measures to prevent VTE are consistently underused. Many patients at risk of VTE do not receive adequate prophylaxis. The choice of thromboprophylaxis involves a trade-off between risks and benefits, especially risk of bleeding versus risk of deep vein thrombosis (DVT) or pulmonary embolism (PE). For many clinicians this decision is not straightforward.
Since 2005, the National Institute of Clinical Studies (NICS) has run a national quality improvement program to improve the prevention of VTE in hospitalised patients in Australia. The program was run first in public hospitals, and recently extended to private hospitals.
Purpose: To describe the activities, results, and impact of the VTE Prevention Program, a national program run in 76 public and private hospitals across Australia.
Methods: The program provided training (workshops, teleconferences, newsletters) and resources (implementation guides, patient information, data entry portal, evidence summaries) to local hospital teams. Teams were required to: have administrative, clinical and project support; identify local barriers to change; select and implement appropriate solutions; and provide data on progress. Progress was assessed by audit data, surveys, and site visits.
Results: Use of risk assessment and provision of appropriate prophylaxis improved across the program. It also led to improvements in development of local policies, specialised tools and training programs.
Discussion: This program used a national approach to support the development of local strategies to address the problem of thromboprophylaxis. The advantages and disadvantages of this will be discussed.
The program has demonstrated a clear improvement in the provision of appropriate prophylaxis to patients at risk of VTE. The program also had significant impact on the profile of VTE prevention in Australia, leading to the development of a national guideline, and inclusion of VTE indicators in national quality and safety datasets.

P59
IS THERE AN INTERNATIONAL STANDARD FOR THE APPRAISAL OF CONTENT QUALITY OF CLINICAL PRACTICE GUIDELINES?

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Background: Clinical practice guidelines (CPGs) are used for different purposes, both for clinical decision making and guidance in the health system. To date, only instruments for assessing methodological quality are available for selecting suitable CPGs or CPG recommendations. Procedures for analysing the content of CPGs are used only sporadically. Procedures for assessing content have not been established.
Purpose: To identify existing strategies and methods for analysing CPG content.
Methods: A multi-level search strategy was developed, starting with an unsystematic literature search related to the broad topics of *CPG assessment* and *CPG analysis*, and generating a test set of 56 relevant publications. A search strategy was developed based on this test set using text analysis. The search was performed in Medline and the Cochrane Methodology Register and yielded 7034 hits. A random sample (n = 500) was taken and analysed. 292 of these publications were screened in full text and, if their analysis aim, criteria and methods were relevant, assessed. After assessing the random sample, the results were analysed and, if necessary, the search strategy adapted to focus specifically on the topics of CPG comparison and assessment of CPG contents.
Results: The interim assessment did not indicate the existence of an instrument or a strategy on content analysis of CPGs or CPG recommendations. However, publications were identified where the recommendation/evidence and methodological CPG quality/recommendation relationships and comparisons of CPGs were investigated. Consistent criteria for CPG analysis and consistent objectives were not identified. Aim and context determined the criteria and methods of analysis throughout.
Conclusion: Based on the publications analysed, it appears possible and useful to establish criteria for clearly defined research questions and to develop specific procedures for analysing CPGs. How suitable the identified strategies and procedures are for developing a generic methodology on assessing CPG content will be clarified later in the project.

P60
WORK AND HEALTH IN CLINICAL GUIDELINES

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Sickness absence and work disability is a major concern for society. Work, if matched to one's knowledge and skills, and undertaken in a healthy and safe environment, can promote good physical and mental health and play an important role in helping people recover from illness. Moreover, the workplace can be used as a setting for health promotion. A growing body of evidence for this exists. The idea of the importance of work as a determinant of health is rapidly gaining wide acclaim. In the UK, recently, a *healthcare professionals' consensus statement* was published in which more than 30 of the most important health professional bodies in the UK pledge to help people acquire a job or return to their work[1]. In spite of this, most clinical guidelines do not deal with work or work-related aspects. A recent study showed that occupational health advice is not well integrated into NICE guidelines[2]. However, promising developments can be identified. NICE has published a first document on a work-related issue: guidance on sickness absence management. To be eligible for funding of clinical guideline development in the Netherlands, the Dutch Ministry of Health has included in its latest programme the introduction of work-related aspects as an obligatory requirement, stressing the importance of work and health. A guidance document for this was recently developed[3]. A similar document on including attention for work in guidelines on oncology was also published.

1. www.workingforhealth.gov.uk
2. HASHTROUDI A, PATERSON H: Occupational health advice in NICE guidelines. Occup Med 2009; doi:10.1093/occmed/kqp010
3. DE BOER WE, MENTINK RH, HULSHOF CT et al: Guidance for the effective integration of work-related aspects in clinical practice guidelines. Utrecht: VGI/NVAB/CBO 2008

P61
MULTIFACETED STRATEGIES MAY INCREASE IMPLEMENTATION OF PHYSIOTHERAPY CLINICAL GUIDELINES
A Systematic Review

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Background: No reviews had been published to specifically review the effects of guideline implementation strategies in physiotherapy. The specific characteristics of physical therapy practice may include other barriers that influence adherence to guideline recommendations compared to medical practice.
Purpose: To study the effectiveness of guideline implementation strategies in physiotherapy in a systematic review.

Methods: Controlled trials were included that aimed at single or multifaceted interventions, designed to improve physiotherapy practice. Participants were physiotherapists in clinical practice treating any type of patients. Outcome measures were physiotherapy practice, patient health, and/or cost of care.
Results: Five papers were included, based on three separate cluster-randomised trials. Two studies evaluated implementation of low back pain (LBP) guidelines in Netherlands and UK respectively, one evaluated implementation of whiplash guidelines in Australia. The Netherlands LBP trial showed positive risk difference (RD) for: Limit treatment sessions (RD 0.13 (0.03 to 0.23)), Use active interventions (RD 0.13 (0.05 to 0.21)), Give adequate information (RD 0.05 (0.00 to 0.11)). The UK LBP trial showed positive risk difference for: Advise to increase activity level (RD: 0.16 (0.02 to 0.30)), Changing attitudes/beliefs about pain (RD 0.13 (0.01 to 0.24)). The whiplash trial showed positive risk difference for: Reassure patient (RD 0.40 (0.07 to 0.74)), Advise to act as usual (RD 0.48 (0.15 to 0.80)), Use functional outcome measures (RD 0.62 (0.32 to 0.92)). No evidence was found for improving patient health outcomes or cost of care.
Discussion: This review shows that multifaceted interventions based on educational meetings to implement clinical guidelines in physiotherapy may improve some outcomes of physiotherapy practice. No evidence was found for improvement of patient health or cost of care. These findings are comparable with results among other health professions and add to the body of knowledge for implementation strategies in physiotherapy.

P62

FROM GUIDELINES TO INCENTIVES FOR PERFORMANCE IN THE UNITED KINGDOM

The NICE Quality and Outcomes Framework Indicator Programme

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Background: The need to link evidence based clinical guidelines to incentives for performance is increasingly being recognised at international level. The UK has two high quality national guideline programmes: NICE and SIGN and since 2004 has had a major pay-for-performance scheme for securing higher quality primary care: the Quality and Outcomes Framework (QOF) which rewards performance against criteria in 4 areas: clinical, organisational, patient experience and additional services. To date overall achievement has been high and the UK government currently spends about £1bn (•1.1bn; $1.5bn) each year (15% of primary medical care costs) on the framework. NICE were given the role of developing and reviewing the framework's clinical and health improvement indicators from April 2009 and a key task will be to ensure relevant evidence based guideline recommendations are used to inform the development of indicators that are clinically effective and cost effective.
Purpose: To present an overview of the NICE QOF indicator programme and to highlight issues of relevance to clinical guideline developers.
Methods: The interim process guide for the NICE QOF indicator programme has been published. The first meeting of the Primary Care QOF Advisory Committee will take place in June 2009.
Results: An overview of the NICE QOF indicator programme, how clinical guidelines are to be used to inform indicator development and methodological issues encountered to date will be presented.
Discussion: The key issues national guideline developers need to consider when linking their work to incentives for performance programmes will be highlighted and discussed.

P63

STIRRING UP MULTIDISCIPLINARY GUIDELINE DEVELOPMENT

How Innovative are Guideline Developers?

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Background: In 2006 a program for innovative development of multidisciplinary guidelines started in the Netherlands. In Holland it's the health professionals' own responsibility to develop clinical practice guidelines (CPGs). This means that some 30 organisations issue CPGs, resulting in different sorts of guidelines, sometimes contradicting each other and mostly monodisciplinary.
CPG development is diverse, costly, lengthy and CPGs aren't easy to use. Furthermore, healthcare is multidisciplinary and CPGs should reflect this.
Purpose: The programme intends to
- harmonize CPG-development
- speed up the process
- stimulate cooperation
- involve patients (ICF)
- inbed occupational health
- involve all disciplines
- prioritize subjects

Method: A 3 year programme in which everybody involved in CPGs could submit a grant proposition for a CPGs whilst experimenting with the above mentioned topics. Five rounds. A committee prioritizes the submitted subjects (> 200).
Results: Within the programme 45 CPGs are (being) developed by a myriad of parties, ranging from patients and guideline institutes to PhDs. Other innovative elements are e.g.:
- ADAPTE
- WIKI methods
- blue print occupational health

- mono- *versus* multi-CPGs
- GRADE
- yearly updates

6 studies are being conducted: SDM, translating national-local and effectiveness of patient involvement.
Discussion: The programme has set things in motion, but raised also some new issues.

- prioritizing; who and how
- implementation multidisciplinary CPGs
- updating CPGs still in its infancy
- realizing a patient centered perspective
- financing
- international cooperation
- lack of evidence in certain areas

Currently the Minister of Health has installed a National Quality Board to structure, steer and prioritize guideline development and implementation. For the future it is important to ensure professionals themselves stay in the lead, are kept motivated and involved to keep improving the guideline process while the government, inspectorate and insurers are moving in on their turf.

P64

USING INFORMATION ON CURRENT SERVICES TO SUPPORT EVIDENCE BASED GUIDELINES

An Example from a Guideline on the Process of Donor Milk Banking

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Background: Clinical guidelines are generally accepted to make recommendations related to healthcare decisions between the practitioner and an individual patient. However, there are examples of clinical guidelines, such as cancer service guidance, that recommend guidance on the services to be provided, for example which healthcare professionals should be involved in treatment, and the types of provider organisation best suited to that care.
In a commissioned guideline on donor milk banking, we have been tasked with making recommendations on the process of donor milk banking, with a focus on safety. Unlike the cancer service guidance above, we will not be recommending the level of service to be provided (that is, how many milk banks are needed in any defined area).
We therefore have adopted a hybrid approach through the use of a questionnaire to service providers and a comprehensive evidence review.
Purpose: To describe the development of the questionnaire, present general results, and how these were used alongside 'clinical evidence' to develop practice recommendations.
Methods: Usual guideline development methods were followed, with adaptations agreed where appropriate. We undertook a comprehensive review of the literature related to donor milk banking and summaries were presented to the guideline development group. Formal consensus methods were used to develop recommendations.
We also surveyed 17 milk banks to determine their current practice, and presented the results to the guideline development group after they had rated and agreed the recommendations.
Results: This guideline is currently in development, and results describing how the survey was developed and how it was used alongside 'clinical evidence' in the guideline development process will be presented and discussed.
Discussion: Initial indications are that the survey is a valuable addition to guideline development, particularly when making service recommendations, but cannot and should not be considered as evidence for recommendation generation.

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BARRIERS TO THE DELIVERY AND UPTAKE OF PRECONCEPTION CARE GUIDELINES

What is Important and what is Changeable?

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Systematically designed interventions that address barriers to evidence based practice are necessary to improve quality of care. Many barriers to periconceptional folate supplementation exist; both in the delivery of preconception care by general practitioners as well as to the uptake of the advice by women. Formulating and implementing an intervention that addresses all the barriers found in a barrier analysis is impossible. Researchers need to select the most appropriate barrier/s to focus on. One way of doing so is to determine the most important barrier/s and the one/s most open to change. We aimed to identify and select barriers to the delivery and uptake of preconception care according to the criteria of i*mportance* and *changeability*.
Multiple barriers were identified through focus groups with GPs and women. Focus group participants were sent a questionnaire asking them to rate the «importance» and «changeability» of each identified barrier on a 5-point Likert scale. Participants were also asked to identify the three most important and changeable barriers.
18 GPs (81.8%) and 12 women (70.6%) completed the questionnaire. For GPs there was little compatibility found between importance and changeability but the opposite was true for women. Differences also exist when comparing the perceptions of GPs and women in relation to the delivery and uptake of preconception care. For example, whilst women perceive that *GPs don't routinely provide preconception care*, the GP view is that *women don't present for preconception care* and *women who need preconception care, don't access it*.
Systematic intervention design is necessary to produce effective outcomes. Barrier analyses tend to identify multiple barriers. *Importance* and *changeability* are impor-

tant criteria to assist in the selection of barriers to target in intervention design. Consultation with professionals and patients is necessary to determine the relative significance of each barrier.

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EFFECTS OF CLINICAL DECISION SUPPORT SYSTEMS ON PRACTITIONER PERFORMANCE AND PATIENT OUTCOMES

A Synthesis of Systematic Review Findings

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Background: A promising intervention for the implementation of evidence is the use of clinical decision-support systems (CDSSs) and real-time patient-specific reminders at the point of care to help doctors make the best decisions. The clinical knowlegde incorporated in the CDSS can be based on available best evidence which is represented in guideline's recommendations. In the past years a large number of CDSSs have been developed and studied. These studies have been synthesized in several systematic reviews showing that CDSSs can improve guideline adherence. Despite the potential of these systems there are few CDSS implementations in use today in routine clinical practice and the factors that influence effective implementation are insufficiently known.

Purpose: We set out to provide a synthesis of systematic reviews findings examining Clinical Decision Support System (CDSS) interventions in a hospital setting. The objective is (a) to summarise their effects on practitioner performance and patient outcome, (b) to identify features of CDSSs that have a negative or positive effect on practitioners acceptance or performance and (c) to identify (sociotechnical) factors that negatively or positively influence the implementation of CDSSs in clinicial practice, and (d) to highlight areas where more research is needed.

Methods: Through a literature search of Medline, Embase, Inspec, Cinahl, and Cochrane/Dare potentially relevant systematic reviews were identified. Included are studies on CDSSs combining clinical knowledge with patient characteristics, including CPOE systems, decision support functionality and CDSSs for diagnostic performance aimed at healthcare professionals directly responsible for patient care in the hospital setting. Selection of studies, methodological quality assessment and data abstraction are performed by two independent reviewers.

Results and Discussion: Currently we are in the phase of screening the potentially relevant publications. We expect to finish the study this fall and therfore are able to present the results on the conference in Lisbon.

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COMPARISON OF THE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES ACCORDING TO SETTING

Stroke Units and Conventional Wards

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Background: Patients admitted to a stroke unit are more likely to survive and recover greater independence than those receiving care on a conventional ward.

Purpose: To determine whether there is a difference in clinical practice guideline implementation according to setting.

Methods: Audit criteria were derived from guidelines on the early management of stroke published in 2002 jointly by the French Neurovascular Society and ANAES (forerunner to the French National Authority for Health (HAS)). Eleven hospitals volunteered to take part in the audit which was part of a national HAS campaign on criteria validation on 101 topics. The criteria assessed care delivery in A&E and on the ward (stroke unit or conventional ward). Two rounds of the self-audit were carried out at a 1-year interval.

Results: Data for the first round showed that stroke unit care complied significantly better with guidelines than care in non-dedicated units. This applied to all aspects of acute stroke care: initial assessment, treatment, screening for and treatment of complications, multidisciplinary team coordination, and preparation for hospital discharge. Care in stroke units was more reproducible and more frequently used standard protocols. Risk prevention during the acute phase and overall coordination of care throughout the stay were also better in stroke units. The second round indicated increased quality of care in both stroke units and non-dedicated units. However, more items were improved in the non-dedicated units.

Discussion: Although we cannot exclude statistical bias, our results indicate that the implementation of guidelines is better in a dedicated setting (stroke units) and that the improvement is greater when initial compliance is low (non-dedicated units). We suggest that stricter audit criteria derived from updated guidelines and/or other quality improvement methods (e.g. risk management, quality indicators) be used in dedicated settings.

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TRANSLATION, LOCALISATION AND ADAPTION OF BRITISH MAP OF MEDICINE PATHWAYS TO DANISH CLINICAL PRACTICE

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Background: Language barrier is a major drawback of importing foreign knowledge systems. Moreover, differences of clinical tradition and culture warrant a localisation process in order to accommodate to clinical practice. In addition, experiences indicate that local editions are essential in order to ensure confidence and thus higher usage of knowledge systems.
Purpose: As part of the Danish National Board of Health (NBH) pilot test of Map of Medicine as the basis for a national web based knowledge system, a localisation process is investigated. The target of the localisation process is double. One goal is to test and evaluate the usability of the chosen procedure. Another goal is to make the guidelines available for clinical testing.
Methods: The localisation process is structured into different stages: translation, quality check, localisation, review and publishing. Afterwards an external review process is planned. In the localisation process three pathways (community acquired pneumonia, rheumatoid arthritis and valvular heart disease) were chosen to ensure a broad prospect of the localisation of pathways and to suit the subsequent process of testing in a clinical setting.
The translation is undertaken by a professional translation service in order to replicate future pathway localisation while minimizing the clinical burden of localising the pathways. Clinical expert teams of Danish clinicians subsequently localise the pathway to fit Danish clinical practice. The members of the clinical expert teams are specialists, general practitioners and nurses appointed by the Danish Royal Colleges. The groups are supported by NBH. The translation and localisation process was started in the beginning of February and is expected finished in august 2009.
Results and discussion: Evaluation of the process of adapting a foreign knowledge system will be presented and discussed including: usefulness of the chosen procedure, time and resource usage, translational difficulties and clinical differences e.g. diagnostic and antibiotic regimes.

P69
WHEN CAN RECOMMENDATIONS FOR DIAGNOSTIC PROCEDURES BE DERIVED FROM THE LINKING OF RESULTS FROM DIAGNOSTIC AND THERAPEUTIC TRIALS?

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Background: Only appropriate diagnosis can ensure meaningful, targeted disease management for patients. Nevertheless, diagnosis recommendations are often neglected in non-diagnosis specific clinical practice guidelines (CPGs). Recommendations on key diagnostic questions are often not provided or are based on inadequate methodology. One reason may be a frequently inadequate evidence base, especially as studies that investigate patient-relevant benefit must also be considered when examining diagnostic questions, but often only studies on diagnostic accuracy are available.
Purpose: To present the *linked evidence* (LE) method as an option for guideline developers to obtain the information required for meaningful diagnostic recommendations in CPGs.
Methods: If direct evidence from RCTs is not available for an algorithm comprising diagnosis and resulting consequence, it may be possible, using the LE method, to indirectly obtain information on the benefit of a diagnostic procedure by linking diagnostic and therapy studies. The examples of asthma diagnosis and osteodensitometry are used to present this method.
Results: The LE method is a structured approach to indirectly derive information on the benefit of a diagnostic measure. Applying the method without a reference standard presents particular difficulties (e.g. in asthma diagnosis); therefore, a modified approach was developed and used. Furthermore, some methodological issues were identified, which should generally be considered beforehand, e.g.: Population comparability criteria; Weighting of diagnostic accuracy criteria.
Conclusion: Diagnosis can set the direction for the further management of disease. It is essential that patients are allocated to the intervention or non-intervention from which they will probably benefit most. Guideline developers should therefore attach the same importance to diagnostic recommendations as, e.g. to pharmacotherapy ones. The required information (RCTs with patient-relevant outcomes) is frequently not available. The LE method offers the possibility of obtaining additional fundamental information which can be included in recommendations.

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A PROTOCOL FOR THE REVIEW AND ASSESSMENT OF GUIDELINE DOCUMENTS TO DETERMINE THEIR PRIORITY FOR UPDATING IN THE CONTEXT OF LIMITED RESOURCES

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Background: In order for guideline document developers to ensure the currency and relevance of their documents, each developer must have some process in place to regularly update these documents. This criterion is reflected in both the original AGREE and the AGREE II assessment instruments, and is represented in the guideline hand-

books and procedure manuals of many developers. However, updating a guideline can be time-consuming and unmotivating when new evidence is likely to agree with existing evidence. Further, balancing available resources (time, money, staff) between updating previous work and creating new work can be challenging.
Purpose: To develop a rigourous yet practical protocol that can assist a guideline document developer in determining which documents warrant updating and which do not. Implementation of the protocol should require limited resources for implementation, and it should be generally applicable to many types of guideline documents.
Methods: A draft protocol, including a priority algorithm and an assessment and review tool that can be used to determine when and how a guideline should be updated. This protocol outlines a set of decisions that a clinical expert in collaboration with a trained methodologist should make, and incorporates a systematic search of the recent literature. The protocol has four main outcomes for each document; endorsement, archival, removal, and/or prioritization for update. This protocol is being pilot tested with several guideline development groups.
Results: The experience of the groups in testing the protocol, including data regarding the outcomes of each review, and the final proposed protocol, will be presented. Implications for generalization to other guideline programs will be discussed.

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ARE BUILT-IN MEDLINE RCT FILTERS ENOUGH WHEN TRANSLATING EVIDENCE?

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Background: Search filters are search strategies that are designed to retrieve specific types of records, such as those of a particular methodological design.
There are many different search filters available for locating RCTs in Medline and it is often difficult to choose the best one for the clinical problem in question.
Purpose: To evaluate the performance of different search filters for RCTs in Medline (PubMed interface) when preparing systematic reviews or national guidelines. A sensitive filter is needed for these purposes.

- Cochrane Highly Sensitive Strategy, sensitivity-maximizing version
- Cochrane Highly Sensitive Strategy, sensitivity-and precision-maximizing version
- Clinical Evidence (produced by BMJ)
- Medline built-in search filter
- SIGN (Scottish Intercollegiate Guideline Network)

Methods: This is an analytical survey. The topic of the survey is tennis elbow.
Searches done by two information specialists in Medline using aforementioned search filters.
Evaluating the results against a golden standard formed with the help of two researchers (an occupational health physician and a physical therapist).
Comparison of the search results provided by different filters.
Results and discussion: We will describe the research process: formation of golden standard, search strategies, comparison of the search results with different filters. On the basis of the results, we will discuss whether Medline built-in filters are enough in preparing systematic reviews or national guidelines.

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A COLLABORATIVE INITIATIVE TO DEVELOP EVIDENCE BASED PRACTICE IN NURSING AND ALLIED HEALTH

The *BEST* Project

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In the last fifteen years, the interest in evidence based practice (EBP) increased exponentially in nursing and allied health. However, major barriers to the utilisation of research evidence have been identified, including a large number of research articles being published each year, the majority of articles being written in English, and a lack of time, knowledge and skills.
Conscious of the importance and of difficulties to implement EBP in the clinical area, three tertiary schools of nursing and health, and one teaching referral hospital in two cantons of Switzerland (Vaud and Fribourg) have collaborated to develop the *BEST* project (Bureau d'Echange des Savoirs pour des praTiques exemplaires de soins). The purpose of the BEST is to facilitate and promote EBP in nursing and allied health (midwifery, physiotherapy, and radiography). This initiative will assist practitioners in the EBP process, from identifying a clinical question, gathering of evidence, implementation of recommendations.
A two-year pilot study is conducted to test the feasibility of the different stages of the *BEST* project, to define the organisation, roles and responsibilities, and to detail the description of the approach. It also aims to identify and answer several clinical questions. This presentation offers insight into the BEST project, including processes and obstacles, and presents preliminary results.

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RANDOMIZED CONTROLLED TRIAL TO ASSESS STRATEGIES FOR IMPLEMENTATION OF A CLINICAL GUIDELINE IN A PRIMARY HEALTHCARE NURSING SETTING IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

A Research Protocol

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Background: There is some evidence that guidelines are effective in changing the process and outcomes of clinical care[1]. There is however insufficient evidence on which guideline dissemination and implementation strategies are likely to be more efficient under varied circumstances[2].

Purpose:

- Identify the best strategy for implementation of a Clinical Guideline in primary healthcare nursing consultation in patients with type 2 DM, by comparing a group of nurses with specific training and a group of nurses without training.
- Identify possible barriers to guidelines implementation process

Methods: This is a three-arm cluster randomised controlled trial. Eighteen Primary Healthcare Centers were randomised by clusters either to Arm 1 (nurses who will have a training module on the guideline application); Arm 2 (nurses who will receive the guidelines without any training); Arm 3 (usual care, control group).

Baseline data collection will be gathered by questionnaires with two parts: patients' health data; and records of the interventions made by nurses during consultations over 12 months (guideline adherence variables).

After 12 months, data will be collected through a second part of the questionnaire.

The Guideline that will be used was constructed based on Panel Delphi and recommendations by ADA, Clinical Practice Recommendations, 2008 and CDA 2008, (Clinical Practice Guidelines for Prevention and Management of diabetes).

Nurses' adherence to the guideline will be assessed by: percentage of patients to whom the nurses registers: Blood Pressure measurements in all consultations; HbA1C values at least one time; clinical exam of the feet at least once over 12 months; education for diabetes self-management, once over the 12 months.

Information about barriers to guidelines implementation will be assessed through focus groups.

The Project was approved by the Ethic Commission and by National Data Protection Commission.

References

1. THOMAS L, CULLUM N, MCCOLL E, ROUSSEAU N, SOUTTER J, STEEN N: Guidelines in professions allied to medicine. The Cochrane Collaboration, 2006. http://www.cocchrane.org/reviews/en/ab000349.html [cited 2006 Octo]

2. GRIMSHAW JM, THOMAS RE, MACLENNAN G et al: Effectiveness and efficiency of guideline dissemination and implementation strategies. Health Technol Assess 2004;8(6)

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DO WE NEED A COMPREHENSIVE EDUCATIONAL PROGRAMME FOCUSED ON CLINICAL PRACTICE GUIDELINES?

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Background: The Centre for Clinical Practice Guidelines of the Department of Social Medicine and Health Policy, Faculty of Medicine and Dentistry, Palacky University in Olomouc is concerned with issues of clinical practice guidelines (CPGs) as viewed from different perspectives. The main goal of the centre is to be an independent research and educational institution for anyone interested in the process of development, adaptation, implementation and evaluation of CPGs and their multidisciplinary aspects.

Purpose: A new comprehensive educational programme has been developed to disseminate information about CPGs.

Methods: We developed a comprehensive educational programme focused on various aspects of CPGs and many workshops and lectures have been held since 2008.

Results: Basic knowledge – workshops and lectures intended for undergraduate students and healthcare professionals with no experience with CPGs:

Introduction to CPGs – basic principles.

How to search and find CPGs?

Development and adaptation methodology – workshops intended for CPG developers and stakeholders:

Introduction to CPG development and adaptation methodology.

Guidelines for guidelines.
Adaptation of CPGs.
Development of CPGs in various countries (a series of lectures).
Implementation and evaluation – workshops focused on implementation and evaluation of CPGs intended for experienced healthcare professionals, CPG developers and advanced undergraduate students:
Patient and public involvement – lectures intended for health professionals, stakeholders and patient organisations.
Multidisciplinary aspects – lectures intended for CPG developers, stakeholders, experienced healthcare and other professionals:
Tutor training programme – intended for educators of the programme.
Discussion: As CPGs are an important part of clinical decision making, it is advisable to introduce them to undergraduate students and to extend the knowledge in postgraduate and lifelong education. There is also need for further education of guideline developers and stakeholders. This comprehensive education programme uses internationally transferable knowledge and skills and experience can be easily shared worldwide.

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DOSETTE BOXES TO MULTICOMPARTMENT MEDICINE SYSTEMS
HOW A PUBLIC CONSULTATION CAN INFLUENCE GUIDELINE RECOMMENDATIONS
An Example of Terminology Use

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Background: A dosette box is an example of a device which holds a patient's medicine and is labelled with periods of time. Although the term is derived from a particular brand of device it is widely used in routine clinical practice. Other terms less commonly used are: *nomad*, *manrax*, and *monitored dosage system* and *compliance aid*.
Purpose: To produce an evidence review for the clinical question: Does the use of dosette boxes increase adherence to medication?
Methods: Using the search terms suggested by the GDG we searched for evidence to update a Cochrane Review on *interventions for enhancing medication adherece*. We systematically reviewed randomised controlled trials published after the reviews' search cut-off. These findings were used to answer the clinical questions on interventions to increase adherence.
Results: No studies were found on the effect of dosette boxes on medication adherence both in the Cochrane Review and the update searches. The GDG did not challenge these findings in any way. During consultation, stakeholders brought to our attention that devices like dosette boxes may be classified in a variety of ways and that some researchers label them as *reminders* or as *packaging*, which were part of other clinical questions of the guideline.
Discussion: Stakeholder consultation of draft NICE guidance is a useful tool both in terms of transparency and quality assurance of the draft documents. In this example it helped to re-evaluate some of the assumptions made by the GDG and challenged the *comfort zone* the group had developed. The GDG had agreed their definition of what was a dosette box among themselves, but the consultation showed that our thinking towards classifying these devices had been incorrect. In the end, the GDG agreed to classify these devices as *multicompartment medicine systems*, which is a term that does not exist in the literature!

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UPDATING THE EPILEPSIES GUIDELINE ISSUES ARISING WITH SCOPING AND EVIDENCE REVIEW PLAN

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Background: Epilepsy is a common neurological disorder characterised by recurring seizures. It has been estimated to affect between 260,000 and 416,000 people in England and Wales. Incidence is estimated to be 50 per 100,000 per annum and the prevalence for active epilepsy in the UK is estimated to be 5-10 cases per 1,000. The original Epilepsies guideline was published in 2004, and recent advances in anti-epileptic drugs (AEDs) have warranted a partial update of the guideline (pharmacological management section).
Purpose: to discuss our experience of developing the scoping phase and evidence review plan of The Epilepsies guideline, commissioned by the National Institute for Health and Clinical Excellence (NICE and reflect on lessons learnt to help plan future updates.
Methods: The NICE methodology as set out by The Guidelines Manual has been used in terms of scoping, developing clinical questions and the evidence reviewing plan. Modified GRADE profiles will be used to present the evidence.
Results: As part of this partial update, we are required to update the guideline and the Technology appraisals on new AEDs. With the use of modified GRADE, all RCTS from the original documents need to be re-analysed, which is extremely time-consuming. There was also greater pressure from stakeholders to include other topics from the full guideline. However, we needed to keep the work manageable to enable meeting development timelines. A new scope which only covers pharmacological management and the use of ketogenic diet was developed.
Discussion: to discuss how this case is relevant to project

teams who will be involved in future guideline updates, while using GRADE. With the current aim to consistently use modified GRADE across the NICE program greater attention needs to be given when considering the overall plan and timelines for a guideline update.

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ADAPTATION AS METHOD FOR CLINICAL PRACTICE GUIDELINE DEVELOPMENT OR IMPLEMENTATION

A Systematic Review Update

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Background: Clinical practice guideline (CPG) development is useful strategy for healthcare quality improvement, although is logistically and financially demanding. There are important differences on resources between developed and developing countries. Has been advocated the use of adaptation to *de novo* CPG development or implementation. In 2005 ADAPTE collaboration created standards for CPG adaptation, to improve the quality of its application.
Purpose: This review describes the evolution of adaptation as an alternative to development or implementation of a CPG and evaluates the use of recommendations for adaptation in recently published literature.
Methods: Using and updating previous review standards (Fervers 2006), we conducted a systematic review of literature to identify and describe the use of adaptation in CPG development or implementation. We included descriptive, comparative and methodological reports describing the use of adaptation as method for development of CPG. Search will include following databases: MEDLINE (PubMed; April 2005 to January 2009), LILACS (January 1982 to January 2009). Search structure: (((((«Guidelines as Topic»[Mesh]) OR («Practice Guidelines as Topic»[Mesh])) OR («Guideline»[Publication Type])) OR («Practice Guideline»[Publication Type])) OR (guideline[Title/Abstract])) AND (adapt*[tw] OR tailor*[tw]). Terms were adapted for LILACS search. Description of searching and literature updating methods, quality and adaptability assessment, and format adaptation and implementation strategies were evaluated and qualified.
Results: From 1120 retrieved references (MEDLINE 956, LILACS 154), we selected 27. Eight references use adaptation as alternative for *de novo* development, twelve as part of implementation process from international level to a national level and seven from a country level to a regional or local context. Less than 15% of the published information of adaptation process covers requested standards.
Discussion: In spite of the dissemination and implementation of adaptation standards, there is not enough coverage of them in published literature.
*This information will be presented in Cochrane Colloquium 2009 in Singapore.

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MEDICATION & RATIONALITY

A Practical Example of Reasonable Pharmacotherapy and Co-Operation Among Various Stakeholders

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Medication & Rationality, a joint project of social insurance, pharmaceutical industry, Medical Chamber and Chamber of Pharmacists, was initiated in 1994 with the aim of ensuring state-of-the-art and evidence based patient care whilst at the same time taking limited resources into consideration. The key task of the initiative is the development of independent guidelines for general practitioners and respective patient brochures on widespread diseases. Independence is ensured by equally shared funding, the avoidance of brand names, a guideline for procedure and external quality assurance of the process. The initiative includes several bodies such as a steering committee, an expert group consisting of independent acknowledged experts and two representatives of each project party, an implementation group, an evaluation group and a project management. After the approval of the steering committee, a draft of the guideline is published on an internet platform, where stakeholders are allowed to state their comments provided that specified rules such as proving their claims by quoting references are fulfilled. In addition, a round table meeting is held to give patient organisations and other stakeholders the opportunity to discuss the draft with the experts.
The final version is published in print and online and is presented at a press conference. Simultaneously, a free guideline and patient brochure are dispatched to every general practitioner registered with the Medical Chamber, to respective medical specialists and hospital departments and to the members of the project parties. Patients may obtain their brochures from pharmacies and doctors' offices.
Although levels of evidence and recommendation are provided as well as bibliographical reference – the latter for lack of space only in the online version, it should be considered that the guidelines are primarily intended for practical use by general practitioners rather than for scientific audience.
Medication & Rationality is an attempt to provide independent national guidelines at a high scientific level.

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GUIDELINES IN THE ELECTRONIC AGE

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Background: There is growing interest in the presentation and implementation of guidelines in electronic formats. Electronic medical records (EMRs) and electronic health records (EHRs) in particular provide exciting opportunities for more effective implementation of guidelines.

Purpose: The purpose of this poster is to explore the challenges and potentials of incorporating guidelines into EMRs and EHRs.

Analysis: The development of EMRs and EHRs and the implementation of guidelines into these systems will have a number of potential impacts on guidelines and provide many opportunities for better implementation of guidelines.

1. Electronic guideline implementation. There is evidence that guidelines are most effective when they are integrated electronically into the physician's work flow. This can be done as reminders or alerts. Guidelines can also be integrated into EMRs and EHRs as part of computerized order entry systems with decision support or as structured clinical practice guidelines.
2. Guideline formats. In order to integrate guidelines most effectively into computerized systems guidelines have to be structured more clearly and precisely than is currently often the practice.
3. Advanced information technology techniques. Techniques such as data mining and artificial intelligence can be used to ensure more detailed and appropriate activation of guidelines to guide physicians.
4. Continuing medical education. Guidelines themselves are a form of continuing medical education, but their integration into EMRs and EHRs allows physicians to access immediately links to background information such as evidence for the guideline or more detailed information about patient management
5. Guideline development. Analysis of data from computerized order entry systems with decision support and electronically implemented clinical practice guidelines can be used to refine existing guidelines and to guide the development of new guidelines.

Discussion: The increasing deployment of EMRs and EHRs presents exciting possibilities for the more effective implementation of guidelines.

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HOW TO AVOID GENDER BIAS IN CLINICAL PRACTICE GUIDELINES

Applying the BIAS FREE Framework in the Preparation of Bias Free CPGs

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Clinical Practice Guidelines (CPG) are set out to help and improve healthcare. Their quality lies in the fact that their recommendations are based on the best scientific evidence available. Nevertheless, it must be remembered that scientific development is also subject to other interests and agendas.

The AGREE Instrument is designed to evaluate their methodological quality, transparency and absence of conflicts of interest. The questions put forward in this proposal intend to identify and avoid gender bias. It challenges the exclusive reliance on the biomedical model, which in turn can be a source of inequity and bias.

This proposal has been drawn up on the basis of the *BIAS FREE* Framework proposed by Margrit Eichler and Mary Anne Burke to avoid bias in health research. The *BIAS FREE* Framework is based on a human rights approach which upholds the dignity of all individuals and their right to be treated with respect. It is designed to draw attention to the structural factors that determine health, to identify biases in health research that derive from multiple social hierarchies, and to propose ways of avoiding these.

The GENDER-CPG questionnaire is organised in the form of questions posed during the main preparatory stages of a CPG. Together with the questions intended to identify gender bias in CPG, the underlying type of problem is highlighted, identified by the *BIAS FREE* Framework.

P81

DEVELOPING A PROCESS GUIDELINE IN THE REHABILITATION OF PATIENTS WITH DEPRESSION IN GERMANY

Data Analysis Based on the Classification of Therapeutic Procedures (KTL)

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In recent years, the importance of guidelines increased continuously. This development also occured in the field of rehabilitative healthcare in Germany, where processes guidelines currently are being designed for various indication groups to ensure quality standards and improvements. As an initiative of the German Pension Insurance (DRV), a process guideline is currently also being developed for the rehabilitation of patients with depressive disorders. In pre-

liminary literature research, 17 evidence based treatment elements (ETM) could be identified. Data based on the German Classification of Therapeutic Procedures (KTL) were then analyzed for 21927 patients treated in the year 2007. The purpose of the analysis was to determine to which degree procedures included in the 17 ETM are actually coded in routine rehabilitative care for this patient group.
Each of the 17 ETM found in preliminary literature research can be considered relevant due to the frequency of its corresponding KTL-procedures which are coded. The mean quantity and duration of the procedures coded varies strongly between the 17 ETM. Procedures pertaining to the ETM *Psychotherapy* and *Exercise-therapy* are coded with the highest quantity and longest duration. On the other hand, procedures pertaining to the ETM *Social competence improvement*, *Vocational integration support, Social and legal counselling*, *Psychoeducation*, *Aftercare-organisation* and *Family-oriented interventions* are coded very rarely and with short durations. The comparison of establishments revealed a large variance between clinics regarding both the quantity and duration of procedures coded per ETM and the amount of different ETM which were coded per patient during his inpatient stay as an indicator of the multimodality of treatment. The ETM *Psychotherapy*, *Exercise-therapy*, *Relaxation training* and *Information and Motivation* were coded relatively comprehensively over all clinics. Only few clinics coded the ETM *Family-oriented interventions*. The range of different ETM coded per patient during his inpatient stay reaches from 6 to 12 on average over clinics.
Due to KTL-analyses, it was possible to gain insight into current status of coded therapeutic procedures in the area of rehabilitation of persons with depressive disorders. It became explicit that all evidence based ETM are relevant for and incorporated into the current healthcare situation. Nevertheless, there are substantial differences between clinics in regard to quantity, duration and multimodality of coded procedures. A process guideline for depressive disorders in rehabilitation thus seems necessary, as it could facilitate the normalisation of quality standards over different establishments.

P82
TRANSLATION OF EVIDENCE ACROSS COUNTRIES AND SETTINGS
Benefits and Challenges
Experiences from a Pilot Test of Map of Medicine in Denmark
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Background: Clinical guidelines are based on a systematic approach for identifying, selecting and appraising the scientific evidence. This is a time-consuming process requiring significant resources for developing and updating the guidelines.
Purpose: As part of a pilot test of Map of Medicine in Denmark, the following aspects regarding searching and appraisal of the scientific evidence into the Danish healthcare setting are included
- Difference in the literature search processes, e.g. selection of information sources, search strategies, inclusion and exclusion criteria etc.
- Transparency of processes regarding inclusion and exclusion of evidence
- Use of grading of evidence

Methods: As part of several work streams of the pilot project, the aspects above have been discussed in relation to
- methods for developing national clinical guidelines in Denmark and for developing pathways in Map of Medicine
- methods for updating guidelines, within the existing concept as well as within Map of Medicine

Information has been collected via literature studies, surveys, and (focus group) interviews of clinical experts.
Results: Some differences in the processes have been identified, e.g. in relation to selection of information resources, inclusion and exclusion criteria such as e.g. language, and in relation to frequency of updating the guidelines.
Discussion: Evaluation of the impact of the different approaches will be discussed, focusing on: How can the different approaches for searching and appraising the evidence be handled to ensure a systematic approach and at the same time meet the demand for timely and updated evidence?

P83
EVIDENCE FROM QUALITATIVE STUDIES IN CLINICAL PRACTICE GUIDELINES
The experience from a CPG for Autistic Spectrum Disorders Including Parent's Views
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Background: The development of a quality CPG implies the inclusion of patient's views, and the approach could be through qualitative research (looking for evidence from primary and secondary studies, or carrying out a research with qualitative methodology). Qualitative studies could offer the involvement of other «publics» such as parents/carers and family.
The present guideline focuses on early detection of children with ASD in primary healthcare. It considers the evidence for how multidisciplinary working can best address in this primary care level (paediatricians, nurses, general practitioners, educational and social services, parent/carers groups) and the process of referral to specialised level.
Purpose: To present our experience in the process of searching, evaluating and incorporating evidence from qualitative studies in a CPG for ASD to take into account

parent's perspective.
Methods: Different studies were identified as matching the terms of coping mechanism, children, parents/parenting styles, autism/autistic, diagnosis and satisfaction. All identified studies deemed to meet inclusion criteria were assessed for methodological quality.
Results: We focussed the inclusion of qualitative evidence to elaborate recommendations in the complex process where the professionals provide information about ASD, addressing parent's perspective.
Guideline development group only included evidence from studies that had good level of relevance and applicability of the results to the key questions. The group graded recommendations with a *Q* when based on these qualitative studies.
Discussion: The experience presented is the minimum approach that should always be adopted to take into account qualitative evidence in CPG as a first step to consider parent's views. In spite of our experience including qualitative evidence in the recommendations, the process of grading and combining qualitative and quantitative evidence to get recommendations it is not really solved yet. The current methods of evidence based practice should develop a whole evidence classification which takes into account qualitative studies

P84

MONITORING THE USE OF CLINICAL GUIDELINES IN BRAZIL

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W.B.: Associação Médica Brasileira. São Paulo. Brazil

Background: there is much difficulty involving the development and implementation of Clinical Guidelines in the Health System. But none of these are comparable to the complexity involving the follow-up of every day recommendations to the patient's healthcare, eather identifying benefits or damages, analysing reasons for adhesions or rejections, or even using data obtained within the process of modulating Guidelines.
Purpose: to describe the monitoring of the use of Clinical Guidelines elaborated within the partnership between the Brazilian Medical Association's Guideline Project and Federal Medical Council, and the Brazilian National Supplementary Health Agency.
Methods: it will be selected Services for Attention to Hospital Healthcare, from secondary or/even tertiary levels, with national representative assistential characteristics, without previous experience in Clinical Guidelines. After the definition of subjects, as well as the contempt (full or partial) of Guidelines that will be utilized, indicators will be selected to be extracted and monitored. During six months these indicators will be systematically collected and registered in the Services previously monitored, and after the posterior Guideline implementation. Besides the clinical and financial outcomes, the level of commitment of healthcare professionals to the recommendations will be analysed. After the analysis of the outcomes strategies will be suggested to promote the use and comprehension of the recommendations contempt, correcting possible diversions.
Results: incentive for changes in local assistance conditions, healthcare indicators improvement, reflecting improvement in the quality follow-up, and identifying obstacles and boundaries for Guideline adoptions.
Discussion: even with difficulties inherent to the process of Guidelines' implementation, we estimate that the monitoring of its use, demonstrating benefits and boundaries, will help to understand the real role of Clinical Guidelines in the Brazilian Health System

P85

IMPROVING THE QUALITY OF HEALTHCARE Using National Collaboration to Development of Guidelines Strategies in Brazilian Supplementary Healthcare System

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Background: A wide variation of quality problems are found in healthcare services: the under and overuse of some services, and also the misuse of others. Improve the quality of healthcare and reduce medical errors are priorities of the National Supplementary Health Agency.
Purpose: The decision making process in policy making can improve actions on promotion, preventive, screening, treatment and rehabilitation in health. A national group of guideline experts initiated the development of a project aimed at promotion of systematic guidelines development and implementation. The ANS sign a collaboration term with the AMB – Brazilian Medical Association – and we coordinated a technical group of experts in the National Healthcare System.
Methods: The National Group shall have the following objectives: to promote the systematic development, dissemination, implementation and evaluation of clinical practice guidelines. And to promote national collaboration in guideline activities to avoid duplication of effort and to facilitate information-sharing, education and knowledge transfer.
Results: Our priorities were some subjects in the clinical specialty for development the guidelines, like: immunology, cardiology, endocrinology, gastroenterology, geriatrics, internal medicine, medical genetics, obstetrics and

gynecology, oncology (breast, colon and rectal, female genital tract), ophthalmology, pediatrics and psychiatry. As a result, efforts have been unnecessarily duplicated and opportunities for harmonization lost. We elaborated a list with 80 guidelines and the collaboration will support the development and implementation of them.
Discussion: The new process improves transparency on the development and implementation of the guidelines and seeks to improve the quality of healthcare by promoting systematic development of clinical practice guidelines and their application into practice. To ensure that future guidelines on healthcare problems are useful, it is imperative that policy makers take the problem definitions of potencial users for the National Healthcare System.

P86
ORPHAN DRUGS IN THE MANAGEMENT OF PULMONARY ARTERIAL HYPERTENSION IN HUNGARY

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Background: Pulmonary arterial hypertension (PAH) is a rare (annual incidence is about 1-2 patients per one million inhabitants), but fatal disease, caused by the occlusion of the pulmonary arteries, leading to blood-pressure exceeding 25 mmHg at rest, and 30 mmHg with exercise. Treatment of PAH has been an unsolved problem until recently, but in the past decade new treatment options have evolved.
Purpose: Our institute aimed to evaluate the medical and pharmacoeconomical consequences of reimbursing orphan drugs for PAH in Hungary and on the basis of this activity to develop proposals concerning the role of these agents in therapeutic practice.
Methods: There are three medicinal classes – namely analogues of prostacyclines, endothelin-1 (ET-1) receptor antagonists and Type 5 phosphodiesterase (PDE-5) inhibitors – that can be used effectively and safely, and guidelines consider pharmacoeconomical aspects on recommending them. Our institute has evaluated 4 different substances so far belonging to 3 of these classes: iloprost (Ventavis®), sildenafil (Revatio®), bosentan (Tracleer®) and ambrisentan (Volibris®).
Results: The pharmacoeconomic evaluations of medicinal products used in the treatment of PAH are partly cost-minimizing evaluations or they are supported by mainly medical reasons, so the applications do not contain relevant ICER or QALY values. Up to now the latter three medicinal products are being reimbursed by the Hungarian Health Insurance Fund by 100%. In 2008 the number of patients taking Revatio® and Tracleer® was about 90, the related amount reimbursed exceeded 120 million HUF. Volibris® was not reimbursed in that financing category in 2008.
Discussion: Compared to several other orphan drugs reimbursed in Hungary, considering the annual therapeutic costs, specific medicinal products used for the treatment of PAH are in the relatively low price category, without significant budget impact. However the national recommendations concerning the choice of the appropriate therapeutic agent are substantially influenced by the price of it.

P87
DEVELOPING A COMMON FRAMEWORK FOR EFFECTIVE DRUG PREVENTION IN THE EUROPEAN UNION

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While standards and guidelines for drug prevention interventions are available in some Member States of the European Union, a common framework on how to plan and deliver effective evidence based drug prevention practice is currently missing.
The existing national and international guidance varies in terms of its content, methodological rigour and its applicability to the wider European context. This project aims to improve drug prevention practice by creating a reference framework bridging the gaps between science, policy and practice. It has been observed that adherence to minimal technical standards improves design and outcomes of prevention interventions.
The project therefore suggests a distinction between quality standards and practice recommendations. Quality standards focus on formal aspects of general quality assurance, while guidelines give content recommendations for specific circumstances. This distinction allows: (1) transference of knowledge and evidence between different countries, and (2) to establish common ground in public health, where guidelines are rarely as specific as clinical guidance. The project proceeds in two stages.
Available national and international drug prevention standards and guidelines are collated and reviewed using an adapted version of the AGREE tool. The diverse standards are further synthesised using content analysis. In the second phase, Delphi survey and expert focus groups are conducted in six European countries. Drug professionals and policy makers rate the concrete standards according to their relevance and cultural applicability.
The expected outcome of the project is a set of commonly agreed evidence based drug prevention standards for use in the European Union.
This will allow Member States to adopt national policy to reflect the evidence base, and to assess intervention programmes against defined criteria. In broader terms, the project will show how standards can integrate cultural diversity.

P88

A LARGE-SCALE INITIATIVE TO ENCOURAGE ASSESSMENT OF GUIDELINE IMPLEMENTATION
A CD-Rom for Targeted Clinical Audits

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Background: Physicians in France have to enrol in Continuing Professional Development (CPD) schemes focussing on practice improvement (5-yearly certification) and assess their practice using defined quality criteria and a choice of assessment methods and tools.
Purpose: To step up the adoption of clinical practice guidelines (CPGs) by the widespread distribution of CD-Roms for performing «targeted clinical audits» (TCAs).
Methods: A *TCA* is a 2-round audit with 1 to 4 quality and safety improvement objectives, fewer than 10 criteria, and takes under 6 months. The method, developed by and with health practitioners, was tested in 200 healthcare organisations in 2004 and 2006 using 101 sets of criteria covering 29 different topics concerning 14 specialties. These criteria were derived from 12 CPGs produced by ANAES/HAS, 9 good practice guides, 2 consensus conferences, 2 legal requirements, and 3 miscellaneous documents.
Results: All the information collected was compiled on a CD-Rom intended for physicians in public hospitals and private clinics. The CD-Rom gives step-by-step descriptions of the TCA method, assessment grids, sources (CPGs, regulations, published guidance), test results, and data for benchmarking. Over 25 000 copies of the CD-Roms have been distributed in healthcare organisations, at congresses, and during student training (doctors, midwives, physiotherapists, etc). Uptake has been enthusiastic.
Discussion: This educational initiative for securing a high standard of professional performance was welcomed by hospital physicians as it provides an effortless way of meeting practice improvement requirements. In view of its success, a second CD-Rom has been prepared for primary care physicians, which includes an additional user-friendly introduction to several assessment methods as well as links to validated websites. The CD-Roms will require updating as new and updated CPGs become available. Greater capacity storage methods (DVDs, memory sticks) allowing downloading of updated information directly from the Internet could be envisaged.


Guidelines
International
Network

WORKSHOPS

WS01

EVIDENCE TABLES:

How to Make the Data Shareable?

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K.H.: Stroke Foundation. Melbourne. Australia
H.D.B.: Dutch Association of Nursing-home Specialists. Utrecht. Netherlands

Workshop type: round table.

Background: The first step in undertaking systematic reviews to inform health professionals and decision-makers about interventions or actions that affect health is to identify and critically appraise the existing literature.

Systematic reviews require capacity and resources, and are time consuming. To reduce duplication of effort, existing reviews should therefore be used whenever possible and updated if necessary. A standard format for summarising the appraised literature would be the easiest way to achieve this.

The aims of the workshop are to promote the concept of information sharing and usability of a minimum dataset for summarizing the appraised literature, using templates developed by the Evidence Tables Working Group (ETWG), and to set up a database. The templates identify the minimum data abstracted from a single study in order to allow consistent comparison across studies and to inform a group process in evidence synthesis.

Short description of the workshop:

- 10 minute presentation of the ETWG templates for summarising studies addressing interventions and diagnostic questions.
- 30 minute group work. The attendees will be split into two groups:
    - group 1 will summarise an intervention study using the template and instructions
    - group 2 will complete the template on diagnostic questions.
- 20 minute round table discussion about the usefulness of the templates and the difficulties encountered in completing them.
- 15 minute discussion (with presentation support) on the usefulness of developing a user-friendly database that will include the summaries – prepared using ETWG templates – of articles reviewed by G-I-N members.
- 15 minute round table discussion to define database requirements that will meet the needs of literature reviewers.

Target groups: This workshop will be of most interest to those who deal with literature reviews (i.e. guideline or HTA developers, researchers,...) and those who wish to adapt work done by others.

Main goals of the workshop:

- To train the attendees in using the templates and to obtain feedback on template clarity and ease of use.
- To discuss the proposal of setting up a database and obtain attendee feedback.
- To pursue the work on defining the final database structure and requirements (i.e. agreeing on minimum requirements that should be considered).

WS02

IMPROVING PARTICIPATION OF ALLIED HEALTH PROFESSIONALS AND NURSES IN GUIDELINE DEVELOPMENT

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M.A.S.: Portuguese Order of Nursing. Lisbon. Portugal
E.P.: Netherlands Centre of Excellence in Nursing. Utrecht. Netherlands
D.D.: Netherlands organisation for health research and development. Den Haag. Netherlands
J.G.: Royal College of Nursing. Oxford. United Kingdom

Objective: How to improve participation of allied health professionals and nurses in multidisciplinary guideline development?

Outline of the workshop: The workshop is a follow-up on a previous discussion in G-I-N about participation of allied health professionals and nurses in multidisciplinary guideline development. The objective of G-I-N is to be a platform for all relevant professions for clinical guidelines. However, guidelines were traditionally focused on medical care, and mainly medical doctors were involved in the development process. In addressing the issue of participation of the non-medical professions, G-I-N has organized discussions to enhance this participation, and several members of G-I-N with nursing or allied health background are involved in this discussion. Although awareness of the issue has been raised and is added to the strategic agenda of G-I-N, it is now time to make the next step and look at ways to further improve participation of allied health professionals and nurses to participate in guideline development. Recent experiences from multidisciplinary guideline development groups will be used to formulate recommendations for improved participation of allied health professionals and nurses.

The authors of the abstract will collaborate in presenting

and moderating the workshop. The authors will also contact allied health professionals, nurses and guideline developers within G-I-N to actively participate in the workshop and invite them to present and discuss their experiences.
Program:

1. Opening and introduction (5 minutes)
2. Participation of allied health professionals and nurses (30 minutes)
- Four examples are presented about involvement of allied health professionals and nurses in guideline development, including experiences with aspects that went well and aspects that did not go well.
3. Experiences are discussed with participants of the workshop (30 minutes)
4. Recommendations for improved participation of allied health professionals and nurses are formulated (15 minutes)
5. Conclusion and closing (10 minutes).

WS03
SEARCH FILTER TESTING
Achievements Thus Far and Next Steps for the Future
Rikie DEURENBERG, Kitty ROSENBRAND, Michele HILTON-BOON
R.D., K.R., M.H-B.: The SEARCH Working Group. Glasgow. United Kingdom
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M.H-B.: Scottish Intercollegiate Guidelines Network. Glasgow. United Kingdom

Type of workshop: Round table with small group discussions and evaluation.
Target group: Information professionals, clinicians and other healthcare staff involved in literature searching.
Main goal of the workshop: To improve search filters and get more standardisation of literature searching among different organisations.
Search filters or hedges are important to retrieve the best available evidence in the context of evidence based guidelines. More knowledge of filter characteristics (precision and recall) can be obtained by analyzing, comparing and testing of filters. This knowledge can be used for improvement of filters and/or for choosing an optimal filter for a specific search topic. We will give a short presentation about the work that until now is realized by the SEARCH working group concerning definitions and building of a *comparison database* for the validation of search filters in our *filter project*.
This workshop will begin with a group discussion to share knowledge of filter characteristics (precision and recall) and to identify problems related to filter quality.
Examples of search strategies for systematic reviews, RCT's and observational studies used by several guideline organisations (CBO, SIGN, NICE) will be compared and discussed by participants.
Then we will give an introduction to the future use of the classified references to measure recall and precision of already available search filters in different organizations.
Next step for discussion in the workshop will be testing of filters in real life for validation. Validation of filters with a reference set of papers identified by a «specific» search (= for a limited topic in a limited time period) in Medline (methodology described in Sampson 2006, Moerman et al. 2009). Focus is: How to construct a manageable reference set pro topic.
Finally, participants will draft a proposal for a future work programme for filter testing in their own organization and exchange of tested search filters with other organizations.

WS04
EVIDENCE CAN CROSS BORDERS
Can Guidelines Do the Same?
Susanne RABADY, Ilkka KUNNAMO
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I.K.: Medical University. Helsinki. Finland
I.K.: Duodecim Medical Publications LTD. Helsinki. Finland

Type of workshop: Round table discussion after introductory presentations.
Target group: Guideline developers interested in adapting existing guidelines.
Length: 90 minutes.
Speakers: S. Rabady (AUT), I. Kunnamo (FI).
Background and main Topics: The «Evidence based Medicine Guidelines» have been developed in Finland for rapid online information in GP decision making. The first adaptation to a different health system was published in Austria, and disseminated also in Germany and Switzerland both in print and on-line versions. The practical organization and resource implications of guideline adaptation will be presented. A comparative analysis of usage data shows important differences in the relative use rates of different guideline topics, and user surveys identify differences in acceptance and attitudes in different countries.
The workshop participants will evaluate and discuss the adaptation methodology, the causes and solutions of problems, and the methods of assessing the success of adaptation.
Main goals: (1) Identify essential tasks in guideline adaptation, (2) Explore the role of log files in assessing user needs and behaviour, (3) Promote international collaboration in developing methods of guideline adaptation.
Expected results: Establish a network of guideline developers interested in adaptation.

WS05
ENGAGING WITH CONSUMERS AROUND THE WORLD
Learning from the Challenges and Achievements of the Cochrane Collaboration Consumer Network
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A.B.: Postgraduate Programmes in Evidence based Healthcare. University of Oxford. Oxford. United Kingdom

Type of workshop: Round table discussion.
Target group: Researchers and healthcare providers interested in working with consumers in the development and implementation of evidence based guidelines.
Main goals of the workshop: To identify key requirements for working effectively with consumers, patients, and carers in the development of guidelines on evidence based clinical best practice models of care.
Background: Consumers, patients and carers have contributed to the work of The Cochrane Collaboration since 1993. The Consumer Network became a formal entity of the Collaboration in 1995. Its purpose was to support consumer involvement in the prioritisation, preparation and dissemination of Cochrane systematic reviews of best evidence. Use of the Cochrane infrastructure is an important enabler but is not the only one. The core functions of the Consumer Network members are to provide consumer input into protocols and reviews that are under development, to increase their relevance in shared decision making; disseminate information from Cochrane reviews, promoted through the lead role in development of plain language summaries; and to promote evidence based healthcare. A review of consumer involvement and the roles of the Consumer Network in working with Cochrane Review Groups will be completed by the time of the workshop and will play a large part in the development of lead questions for the discussions. Approaches to training will also be debated.

WS06
A TRAINING INTRODUCTION TO AGREE II

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F.C.: St. George's Hospital Medical School. London. United Kingdom.
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G.F.: University of Bristol. Bristol. United Kingdom
B.F.: Centre Leon Berard. Lyon. France
I.D.G.: University of Ottawa. Ottawa. Ontario. Canada
J.G.: Ottawa Health Research Institute. Ottawa. Ontario. Canada
P.L.: National Institute for Health and Clinical Excellence. London. United Kingdom
L.Z.: Canadian Partnership Against Cancer. Ottawa. Ontario. Canada

The AGREE II is the new international standard for the development, reporting, and evaluation of practice guidelines. It replaces the original AGREE Instrument and supporting documentation as the Instrument of choice. AGREE II is comprised of 23 items reflecting six quality domains and a new User's Manual. Key changes from the original AGREE Instrument include a new 7-point scale, changes to approximately half of the original 23 items, and a significant restructuring of the supporting documentation. The new User's Manual includes for each item: descriptions and specific examples, where to find the information in the guideline document, and guidance for how to rate the item including 'criteria' and 'considerations'. The Manual is prefaced with information regarding considerations for undertaking the appraisal using AGREE II.
Given the AGREE's extensive use and potential impacts, communication regarding the new AGREE II, its difference from the original Instrument, instruction on how to capitalize on the User's Manual, and instruction on facilitating its optimum use are warranted. This is a training workshop.

WORKSHOP A:
Training goals:
There are two key goals of this workshop.

- To introduce the AGREE II to members of the guideline community.
  - what's new
  - how AGREE II differs from the original Instrument
- To offer training on the new AGREE II through interactive exercises using problem-based learning strategies.

Targets: This workshop would appeal to anyone interested in learning about and practicing with the AGREE II. We will be able to accommodate up to 25 participants. This workshop may be of particular interest to students and trainees.
What to expect: Individuals participating in Workshop A will be asked to arrive having read a pre-assigned guideline. We will communicate, through the G-I-N community and the AGREE Research Trust Web Site (www.agreeretrust.org) the required reading. After a brief overview of the AGREE II by the presenters, a facilitated process of evaluating the pre-assigned guideline will take place. Group discussion and feedback will be used to conclude the meeting. Table 1 provides a complete agenda of the session.
Anticipated Outcomes: Individuals participating in this workshop are expected to:

- Understand the differences between the original AGREE Instrument and the new AGREE II, and
- Develop skills to apply the AGREE II appropriately and effectively

AGENDA

Item for Presentation	Objective	Presentation Modality and Action
Welcome Outline of workshop & objectives Anticipated outcomes of workshop	*To establish a framework for the attendees for what they can expect to receive and achieve through the workshop.*	Round table. Power point presentation.
Journey from original AGREE Instrument to new AGREE II	*To outline AGREE Enterprise History.* *To present work of original AGREE Collaboration.* *To present work of AGREE Next Steps Collaboration.*	Power point presentation.
Introducing AGREE II	*To introduce the new AGREE II.* *What is new and different?* *How to use the AGREE II User's Manual?*	Walk through of AGREE II. Power point presentation.
Using the AGREE II	*To have the participants actively apply the AGREE II to a practice guideline.*	Small group facilitated breakout sessions. Each group will work with one of the AGREE II domains and apply it to the practice guideline. Feedback and direction by facilitator. Round table discussion – what was easy and what was challenging.
AGREE II Tools	*To introduce the goal of an AGREE II on-line interactive training platform.* *To introduce the ART Web Site and AGREE II resources available.*	Power point presentation. Web site presentation of ART Web Site.
Next Steps	*To review future plans for the AGREE II.Evaluation.*	Power point presentation. Open discussion. Complete session evaluation.

WS07
AGREE II TRAIN THE TRAINER

Melissa BROUWERS, Julie MAKARSKI, George P. BROWMAN, Jako S. BURGERS, Françoise CLUZEAU, Dave DAVIS, Gene FEDER, Beatrice FERVERS, Ian D. GRAHAM, Jeremy GRIMSHAW, Steven E. HANNA, Michelle E. KHO, Peter LITTLEJOHNS, Tom OLIVER, Louise ZITZELSBERGER

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P.L.: National Institute for Health and Clinical Excellence. London. United Kingdom
L.Z.: Canadian Partnership Against Cancer. Ottawa. Ontario Canada

The AGREE II is the new international standard for the development, reporting, and evaluation of practice guidelines. It replaces the original AGREE Instrument and supporting documentation as the Instrument of choice. AGREE II is comprised of 23 items reflecting six quality domains and a new User's Manual. Key changes from the original AGREE Instrument include a new 7-point scale, changes to approximately half of the original 23 items, and a significant restructuring of the supporting documentation. The new User's Manual includes for each item: descriptions and specific examples, where to find the information in the guideline document, and guidance for how to rate the item including 'criteria' and 'considerations'. The Manual is prefaced with information regarding considerations for undertaking the appraisal using AGREE II.

Given the AGREE's extensive use and potential impacts, communication regarding the new AGREE II, its difference from the original Instrument, instruction on how to capitalize on the User's Manual, and instruction on facilitating its optimum use are warranted. This is a training workshop.

WORKSHOP B:

Training goals:

The key goals of this workshop are:

- To introduce the AGREE II.
- To build capacity that will enable participants to train

AGENDA

Item for Presentation	Objective	Presentation Modality and Action
Welcome Outline of workshop & objectives Anticipated outcomes of workshop	*To establish a framework for the attendees for what they can expect to receive and achieve through the workshop.*	Round table. Power point presentation.
What we have learned from stakeholders about the AGREE II	*To review the qualitative work of AGREE Next Steps Consortium as it relates to facilitating the use of the tool by stakeholders.*	Power point presentation.
AGREE II Instruction	*To have participants review and apply the training materials to evaluate the practice guideline.*	Power point presentation. Use of training materials. Round table discussions.
Feedback	*To understand the training materials that were useful and less useful (qualitative feedback and quantitative feedback).* *To brainstorm on other strategies to facilitate appropriate use of the tool.*	Round table discussion. What worked and what did not work. Recommendations for improving strategy. Completion of training material evaluation forms.
AGREE II Tools	*To introduce the goal of an AGREE II on-line interactive training platform.* *To introduce the ART Web Site and AGREE II resources available.*	Power point presentation. Web site presentation of ART Web Site.
Next Steps	*To review future plans for the AGREE II. Proposal: Establishing a Community of Practice of Trainers.* *Evaluation*	Power point presentation. Open discussion. Complete session evaluation.

colleagues and stakeholders in their communities and contexts to use the AGREE II appropriately and effectively.

• To profile and test some of AGREE II training tools and aids.

• To explore the options of creating a community of practice of AGREE II trainers.

Targets: This workshop is intended for individuals with experience with the original AGREE Instrument or the AGREE II. We will be able to accommodate up to 25 participants. Workshop A is a prerequisite for those who are novices to the AGREE enterprise.

What to expect: Individuals participating in Workshop B will be asked to arrive having read a pre-assigned guideline. We will communicate, through the G-I-N community and the AGREE Research Trust Web Site (www.agreetrust.org), the required reading. After a brief introduction to the AGREE II, participants will engage in interactive activities aimed to profile, use and refine training resources; apply the AGREE II and the resources and evaluate the pre-assigned guideline; and discuss how we can sustain skills and develop a critical mass of training experts with the AGREE II.

Anticipated Outcomes: Individuals participating in this workshop are expected to:

• Understand the differences between the original AGREE Instrument and the new AGREE II,

• Develop skills to apply the AGREE II appropriately and effectively, and

• Develop skills to train others on the appropriate and effective use of the AGREE II.

WS08

IMPLEMENTATION OF SHARED DECISION MAKING. INTEGRATING PATIENT PREFERENCES IN CLINICAL PRACTICE GUIDELINES

Thou shalt or *you choose*: Evidence Based Medicine Meets Preference-Sensitive Care

Trudy van der WEIJDEN, Marije KOELEWIJN, Antoine BOIVIN, France LÉGARÉ, Jako BURGERS, Haske van VEENENDAAL, Loes KNAAPEN, Anne STIGGELBOUT, Arwen PIETERSE, Glyn ELWYN

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A.B.: Radboud University. Nijmegen. Netherlands
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J.B., H.V.V.: CBO Institute. Utrecht. Netherlands
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G.E.: Cardiff University. Cardiff. United Kingdom

Both evidence based medicine and shared decision making models agree on the importance of integrating medical evidence and patient values. Some clinical practice guidelines organizations have developed structured patient and

public involvement programs and/or have developed patient versions of the guideline or patient decision aids as concurrent stand-alone products. Nevertheless, implementation of guideline recommendations does not currently appear to foster patient involvement in decision making. Ideas on how clinical practice guidelines can effectively facilitate the process of incorporating patients' values and preferences during decision making in clinical practice will be explored. We seek for feasible and effective ways of enhancing shared decision making by adapting guideline development procedures or by combining or cross-fertilising guidelines and strategies for patient involvement such as patient decision aids.

Description of the workshop:

- 10-min presentation: Introduction on shared decision making (including IPDAS). Is engaging in shared decision making with patients compatible with adhering to clincial practice guidelines?
- 10-min presentation: Ideas on integrating patient preferences in clinical practice guidelines.
- 30-min task: Discussion in subgroups (working materials: guideline depression or breast cancer). How could guideline documents and patient decision support strategies or technology best be linked? What does this mean for the guideline development procedure?
- 30-min debate: Plenary feedback and discussion, wrap up by workshop leaders.
- A summary will be produced by the workshop organizers and sent to workshop participants.

Learning objectives to be covered in workshop:

- Awareness of quality criteria for patient decision aids.
- Reflection on consequences for clinical practice of formally encouraging incorporating patient preferences in clinical practice guidelines.
- Reflection on practical issues in linking strategies for patient involvement such as patient decision aids to clinical practice guidelines.

WS09
USING THE GRADE APPROACH IN OSTEOPOROSIS GUIDELINE DEVELOPMENT
Application and Interpretation of Indirectness

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H.S.: Department of Clinical Epidemiology & Biostatistics. McMaster University Health Sciences Centre. Hamilton. Ontario. Canada

S.L.: Institute for Quality and Efficiency in Healthcare. Cologne. Germany

N.M.: Centre for the Evaluation of the Effectiveness of Healthcare. WHO Collaborating Centre on evidence based research synthesis and guideline development. Modena. Italy

The GRADE approach has emerged as a useful method for grading evidence and recommendations in guideline development and it has been adopted by many organizations, including the WHO. However, other organizations still have questions about is usefulness and about practical aspects. The aim of this workshop is to achieve better understanding of the GRADE methodology by using vivid examples on osteoporosis and to provide insight into the practical aspects of using GRADE in guideline development. The target group of the workshop are guideline developers considering using GRADE as well as guideline developers who already have some experience with using GRADE for grading the evidence while developing guidelines.

The Dutch Institute for Healthcare Improvement CBO has recently started a pilot using the GRADE approach for grading the evidence for updating an osteoporosis guideline.

In this workshop, we will present our experiences and will invite discussion about the challenges we encountered and solutions we applied. In addition, we will guide the participants of the workshop trough the process of grading, with discussions in small groups about the decisions which are necessary to make in every step of the GRADEing process. In particular, we will discuss the decisions to be made in relation to the item 'indirectness', because the evidence on osteoporosis frequently requires judgments regarding indirectness, for example about the use of surrogate outcomes (bone mineral density; non-clinical vertebral fractures) and applicability of the evidence to other populations than postmenopausal women. For instance, we will deal with the question of whether the studies are generalisable to men, young women or very old women.

WS10
WHAT TOOLS IN THE TOOLBOX?
Supporting Effective Patient and Public Involvement in Guidelines

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C.P.: Ministère de la Santé et des Services Sociaux du Québec. Québec. Canada

Background: As guideline organizations are experimenting with ways to involve stakeholders, there is a need to support the development of structured patient and public involvement programs (PPIP). An international consultation exercise carried among guideline developers in 2008 to identify research and practice priorities in the field highlighted the need to synthesize existing evidence on PPIP and translate it into a practical toolkit to support the development of effective patient and public involvement programs. We carried a review of the published and unpub-

lished literature, complemented with interviews of key informants (guideline developers and patients) to describe the principal components and activities of existing PPIP, the resources needed, the contexts in which PPIP were developed and tested, and the assumptions underlying PPIP.
Main goals of the workshop: 1) Validate the results and implications of a knowledge synthesis on patient and public involvement in guidelines; 2) Discuss how existing evidence could be translated in a practical toolkit to support the development of effective PPIP.
Type of workshop: Presentation followed by facilitated small group discussions.
Target group: Guideline developers, patient/public representatives, and researchers interested in patient involvement.

WS11
INTEGRATING EVIDENCE AND RECOMMENDATIONS RELATED TO ALLIED HEALTH PROFESSIONALS AND NURSES IN MULTIDISCIPLINARY CLINICAL GUIDELINES

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E.P.: Netherlands Centre of Excellence in Nursing. Utrecht. Netherlands
D.D.: Netherlands Organisation for Health Research and Develoment. Den Haag. Netherlands
Maastricht University. Caphri Research Institute. Maastricht. Netherlands
UMC St. Radboud. IQ healthcare. Nijmegen. Netherlands
J.G.: Royal College of Nursing. Oxford. United Kingdom

Target group: Allied health professionals, nurses and guideline developers.
Type: Round table/discussion.
Objective: How to improve integration of evidence and recommendations related to allied health professionals/nurses in multidisciplinary guideline development?
Outline of the workshop: Clinical guidelines are more and more shifting from medically oriented guidelines describing optimal medical care, towards full multidisciplinary guidelines including nursing and allied health, and the patients' perspective. Especially guidelines for chronic diseases should focus on collaborative care that can be implemented in disease management programs. This shift in guideline development requires more than *adding* recommendations from the non-medical professions to clinical guidelines. There is also a need to integrate all recommendations in clinical pathways for an optimal multidisciplinary care process. The workshop aims to find ways to improve the integration of recommendations from the non-medical professions, and to develop clinical pathways to stimulate optimal disease management.
The authors of the abstract will collaborate in presenting and moderating the workshop. The authors will also contact allied health professionals, nurses and guideline developers within G-I-N to actively participate in the workshop and invite them to present and discuss their experiences.
Program

1. Opening and introduction (10 minutes)
2. Integration of evidence and recommendations (30 minutes)
   Three presentations from guideline developers about specific requirements to improve the integration of recommendations from the non-medical professions, and how to use the outcomes for the development of clinical pathways.
3. Discussion with participants to share experiences and discuss the consequences for the optimal development process (40 minutes)
4. Conclusion and closing (10 minutes)

WS12
A QUALITY-DRIVEN, PRAGMATIC APPROACH TO CRAFTING GUIDELINE ACTION STATEMENTS AND EVIDENCE PROFILES

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Workshop Content: Key action statements, also called recommendations, differentiate guidelines from clinical reviews. This interactive workshop outlines a quality-driven, pragmatic approach to crafting guideline action statements using tested methodology that has produced five national clinical practice guidelines within 12 months from conception to publication. Despite the importance of key action statements, guideline panels often struggle in developing clear guidance that can be implemented and assessed. We will illustrate successful methods for developing actionable statements using a brief presentation followed by engagement of attendees as a mock guideline development panel.
The panel (attendees) will create a mini-guideline on *Presenting a G-I-N Workshop* by identifying quality improvement opportunities, drafting a topic list, prioritizing the topics, drafting key action statements from the topics, and assigning fictitious evidence profiles that will be used in determining recommendation strength for each statement. Attendees will receive a complete Guideline Development

Manual, which thoroughly describes and illustrates principles developed in the workshop, plus a sample clinical practice guideline that was created using the suggested approach.
Target Group: Guideline developers, staff supporting guideline development, clinicians and consumers with an interest in clinical practice guidelines.
Main Goals:

1. Learn how key action statements and evidence profiles can be used to develop transparent, pragmatic guidelines that can be implemented for quality improvement.
2. Develop skills in prioritizing a topic list for quality improvement, drafting action statements, and using evidence profiles to determine recommendation strength.
3. Create a mock *Guideline on Presenting at G-I-N Workshops* to illustrate principles and to engage attendees in an interactive learning environment.

WS13
INDICATORS: THE POWER OF MEASURING
Scaring or Caring?

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Type of workshop: An interactive workshop, small groups and short presentations.
Target group: Guideline developers, guideline implementers and decision makers.
Aim: To gather experiences on guideline indicators: what kind of indicators exist, how are the indicators used and what are the effects and benefits?
To understand the characteristics of a good guideline indicator and how to create one.
To have ideas how to enhance the use of indicators as an implementation tool.
Background: The national evidence based Current Care guideline work started in Finland 15 years ago. The aim was to help healthcare professionals in decision making. Now there are 93 guidelines available. Yearly some new guidelines are under development and about 30 are being updated.
There is both national and international increasing interest to indicators for guideline implementation and a need to show effectiveness of guidelines. Still, the quality of indicators and their use in implementation are heterogeneous and dependent on local interests. Clinicians and guideline groups are often interested in clinical endpoints. However, it is important to understand that the guidelines can potentially change clinical practices of healthcare professionals. And in best cases in the long run these changes improve also patients' clinical endpoints. Therefore the measuring should be targeted to the performance of the professionals rather than clinical endpoints. In some cases, the indicator should be a combination of both process and clinical endpoint indicator of a certain disease.
Topics:

1. What kind of guideline indicators exist in your country and how they are used?
2. What do different users (the healthcare professional/ organisations/political decision-makers) expect from a guideline indicator?
3. How should the results of the indicators be presented to patients, professionals, organisations and political decision-makers (in general and in case of an example indicator)?

WS14
PROACTIVE CLINICAL GUIDELINE DEVELOPMENT USING SYSTEMS APPROACH

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Background: Looking from knowledge management perspective, guideline production is a process of changing explicit to tactical knowledge. Existing guideline production methodologies have far advances in interpretation of explicit knowledge, while tactical knowledge production does not have a defined methodology. Guidelines provide an in-detail description of evidences produced and their interpretation; Meanwhile, gaps in evidence production are not always addressed and applicability of recommendations may not be clear.
Most of the guidelines are focused on specific interventions or disease states while the care provider opposed to a series of clinical events over time needs to build a dynamic multidimensional care process. Systems thinking are a framework based on the belief that the component parts of a system can best be understood in the context of relationships with each other and with other systems, rather than in isolation. In this workshop, we use systems approach for methodological formulation of tactical knowledge in guideline production.
Workshop Objectives:

- Introducing system thinking as a new paradigm in formulating guidelines
- Using disease and care process as a reference for planning optimal care
- Designing guidelines based on an understanding of variations in care pattern
- Proactive planning of evidence production and implementation of guidelines

Workshop Description: Case studies from implementation projects shall be used to introduce interactive exercises. Participants shall take part in a modeling experience that

	Modeling Phase	Expected Result
A.	build up a disease process map	Defining clear goals and objectives for the care process reassuring optimal outcome
B.	Model a coordinated care process	Build up clinical guideline scope using a system approach
C.	Map and Formulate Variations in Care -Localize the Care Process in the care providing units -Regionalize the Care Process/Find other sources of variation	Define clinical guideline topics and questions based on care process variations
D.	Propose Optimal Care Packages appropriate to the Care Setting	Formulate recommendations providing clear tactics.
E.	Proactive Design of Research and Implementation Plan	A systemic plan for evidence production, implementation and evaluation of guidelines

help them building flexible guidelines based on an in-depth understanding of disease and care process, where the patient receives care (care providing unit and regional health system). Continuous improvement of the guideline development process shall be guaranteed by a proactive design of research and implementation plan (see table).
Target Audience: Guideline Developers (people with active clinical assignments are specifically invited).
Type of the Workshop: Round Table Discussion.

WS15
TOWARDS MORE EFFICIENT GUIDELINE DEVELOPMENT AND IMPLEMENTATION
Experiences with the Use of the ADAPTE Process
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J.B., B.F., B.B., M.B., G.B., R.E., I.G., M.H., J.L., N.M-C., L.P., J.V., L.Z..: ADAPTE Collaboration, International

Description of the workshop: Development and updating of high-quality guidelines requires substantial time and resources. In an effort to enhance efficiency of guideline production and improve implementation, the ADAPTE process takes advantage of existing high-quality guidelines as an alternative to *de novo* guideline development and for tailoring guidelines to the local context in the implementation process. Since the launch of the ADAPTE website (www.adapte.org) in 2006, organizations from more than 30 countries all over the world have been registred. Seventy percent of them intend to use the ADAPTE framework in developing guidelines. The workshop is a follow-up of the ADAPTE workshop at the G-I-N conference in Helsinki. We will shortly outline the ADAPTE process and present preliminary findings of the evaluation study assessing its use, acceptability and benefit to different users groups. In addition, new practical examples of using the ADAPTE process in different contexts and settings will be presented.
Target group: Individuals and organisations with various degrees of experience in guideline development and/or adaptation (guidelines agencies and novices), with varying levels of resources available, interested in gaining knowledge of a systematic approach to guideline adaptation.
Main goal: The workshop provides an opportunity for national and international collaboration among organisations to share experiences with guideline adaptation and to investigate more efficient ways to develop and implement guidelines.

WS16
DESIGNING AND TESTING A PROGRAMME FOR MULTIDISCIPLINARY GUIDELINE DEVELOPMENT
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D.D.: ZonMw. The Hague. Netherlands
J.B.: IQ Healthcare. Nijmegen. Netherlands
J.V.E.: Raad Kwaliteit van Zorg. The Hague. Netherlands

Main goal of workshop: To define the principles for designing a guideline development programme, including topic selection, resources needed, methodology, and stakeholder involvement.
Description of the workshop (open space): After an introductory presentation (15 minutes), the participants can select topics for discussion in subgroups (e.g. topic prioritizing and selection, stakeholder involvement, resources needed, external review process, implementation, evaluation). The subgroup discussions will be chaired by one of our team and will take 45-50 minutes. There are designated people who take notes and who will report back the main findings and conclusions on the discussed subject matter (25-30 minutes).
Target group: Guideline developers, patient representa-

tives, policy makers, healthcare managers and payers.
Background: In 2006 a innovative program for development of multidisciplinary guidelines (KKCZ) started in the Netherlands. In the Netherlands, health professional organisations (appr. 30) are responsible for developing clinical practice guidelines (CPGs). This result in different sets and types of guidelines, which could even contain contradicting recommendations. The KKCZ program aims to develop multidisciplinary guidelines, to facilitate collaboration between professional groups, and to enhance patient participation, and to avoid duplication of efforts on a national level.
Delegates: The workshop will be organized by ZonMw, CBO and IQ-healthcare (possibly Trimbos Institute).