



# 3<sup>rd</sup> G-I-N Conference 2005

5-7 December 2005 - Lyon, France

Abstract Book

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5-7 December 2005 – Lyon, France

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# PLENARY SESSIONS

## PLENARY 1: Context within guidelines

### A-01

#### Guidelines in context, context in guidelines

**Niek Klazinga**

Department of Social Medicine, Academic Medical Centre, University of Amsterdam, The Netherlands.

The methodologies to develop and implement Clinical Practice Guidelines (CPG's) have become more and more formalized over the years. After an initial period of consensus conferences in the early eighties of the past century, the systematic assessment and judgement of scientific evidence has become part and parcel of guideline development. This evidence-base is reflected in instruments such as AGREE that aim to establish the quality of CPG's. After twenty years of evidence based guidelines and implementation research the pendulum is swinging again in the direction of consensus approaches, based on the realization that the development and use of guidelines is also a social process with its own dynamics of perceptions, interests, ownership and change processes. This presentation will discuss the various context variables that can influence the evidence base of guidelines such as local epidemiological factors (i.e. gender, migrant groups) and factors related to the availability and use of specific technologies and services. Furthermore it will be discussed how these contextual factors can be reflected in the evidence-base, the development process and the implementation of CPG's. Central message is that guideline development is not a mere technical exercise linking scientific evidence and practice in medicine but an active social process that shapes opinions and practices.

### A-02

#### What happens inside guideline development groups and does it matter?

**Gene Feder**

Queen Mary University of London, UK.

Guideline development has evolved from an informal meeting of experts to a highly structured process with explicit rules. The process has been professionalized to varying degrees in different countries, with a new cadre of managers, reviewers and information scientists to support the process. Contemporary guideline developers portray previous guideline development methods as relying heavily on the opinions of selected experts with potentially biased application of research evidence and recommendations derived solely by consensus. Guideline developers and theorists describe current guidelines as evidence-based and (more) valid. There have been attempts to locate guidelines within a broader context, where their development is understood as more than the objective translation of evidence into recommendations. Guideline development can be understood as a process characterised by a series of indeterminate relationships between evidence, professional knowledge and social processes, potentially as complex as the implementation of research evidence in clinical practice.

In this presentation I will first review experimental studies on possible variation in recommendations from guideline development groups and then discuss qualitative research on the processes of guideline development and other evidence-based policy groups. The experimental evidence includes studies of panels developing guidelines on angina investigation with the same evidence base and formal consensus methods and a study of 16 nominal groups developing guidance on psychological interventions for chronic physical symptoms. The qualitative research includes studies of two national guideline development groups in the UK and of two committees advising on technology priority setting in Canada.

The main conclusion from the experimental studies is the instability of recommendations between similarly constituted groups. The qualitative studies show that guideline and health policy development is a complex social process, requiring judgement beyond the technical robustness of the research evidence into domains of usability and political acceptability. The importance of these other judgements is not a function of gaps in evidence; guideline development will always be a social, often adversarial, process no matter how much good quality evidence is available on interventions. Nor do formal consensus methods resolve the tension between different domains of judgement.

Embracing the full reality of guideline development is a sign of maturity not a cause for despair. Guidelines are still scientific documents but, like other scientific endeavours, reflect their surrounding socio-economic and institutional contexts. There is potential for greater transparency of the judgements involved and a better understanding of how external commercial, professional and political forces are refracted through development into the final guideline product.

## PLENARY 2: Globalise the evidence, localise the decision

A-03

### Guideline adaptation - the way forward?

**Béatrice Fervers, Ian Graham**

Fédération Nationale des Centres de Lutte contre le Cancer, Paris and Centre Léon Bérard, Lyon, France; University of Ottawa, School of Nursing, Canada.

**Background:** The development and updating of high-quality clinical practice guidelines requires substantial resources. A large number of organisations worldwide produce guidelines on the same topic and key methods for guidelines development have converged over the years. In addition, most organisations have limited resources and face pressure to speed up the guideline development process. In order to take advantage of existing documents and reduce duplication, guideline developers in different contexts may decide to adapt an existing guideline rather than develop a new guideline.

**Objective:** This presentation will discuss the principles of guideline adaptation and review two processes that have been developed to facilitate CPG adaptation.

**Content:** The cultural and organisational differences between countries can lead to legitimate variations in recommendations, even if the evidence base is the same. This means that guidelines produced in one setting may not necessarily be appropriate for another, without modification. The adaptation of guidelines produced in one setting for use in another, either as an alternative to de novo guideline development or in the context of implementation of an international or national guideline, has been designed as "trans-contextual adaptation". To provide assistance to people wishing to adapt existing guidelines, two groups independently developed a structured stepwise approach to guideline adaptation: The ADAPTE process and the Practice Guidelines Evaluation and Adaptation Cycle. The ADAPTE process was designed to create the conditions necessary to ensure the quality and validity of the resulting guideline and to foster adherence and ownership of professionals towards the adapted guideline and the Practice Guidelines Evaluation and Adaptation Cycle was designed to facilitate comparison of different guidelines and guideline recommendations on the same topic and offers a systematic way to evaluate guideline quality and clinical utility. The presentation will compare and contrast the two approaches.

**Conclusions:** Local adaptation of international and national guidelines is feasible. Trans-contextual guideline adaptation should ensure that the adapted guidelines answers specific clinical questions relevant for the context of use and that it meets the needs, priorities, legislation, policies and resources in the targeted setting, without threatening the validity of the guidelines. Guideline adaptation, just as the development of guidelines, requires multidisciplinary stakeholder involvement, methodological expertise and rigorous reporting. Further research is needed to assess the advantages of adaptation of guidelines, in comparison with de novo development.

A-04

### Sharing the work - the holy grail for guideline developers

**Jennifer Hill, Safia Qureshi**

National Collaborating Centre for Acute Care (NCC-AC); Scottish Intercollegiate Guidelines Network (SIGN), UK.

The UK has two government-funded national guideline development organisations. The National Institute for Health and Clinical Excellence (NICE) produces guidelines for the NHS in England and Wales. The Scottish Intercollegiate Guidelines Network (SIGN) develops guidelines for Scotland. Their agendas are set independently and as a consequence, SIGN and NICE have common topics on their guideline development programmes. The National Health Service in Scotland is devolved from the NHS in England. There are some differences in how the two health services are organised and run. There are also differences between how the two guideline developers work. NICE commissions systematic reviewers based at one of seven National Collaborating Centres to develop a guideline in collaboration with healthcare professionals. SIGN asks healthcare professionals to perform the systematic review. Recommendations made by NICE are based on clinical and cost effectiveness evidence. Recommendations made by SIGN are based on clinical effectiveness only, with a comment made on the resource implications of the clinical recommendations.

In 2000 SIGN were about to undertake a review of their lung cancer guideline, first published in 1998, whilst NICE were planning to develop a lung cancer guideline for England and Wales. This convergence of their programmes provided the organisations with an opportunity to explore the feasibility of closer collaboration, with the aims of sharing expertise, reducing repeated appraisals of the same evidence and minimising the costs of guideline development.

A methodology was developed to pilot a joint systematic review of the evidence, whilst protecting the principles important to each organisation. Given the differences between NICE and SIGN, it was agreed that the end product would not be a single guideline, but that each developer would still produce its own guideline. To achieve this, each organisation established its own guideline development group, working to a common timetable, with shared information resources. The groups shared critical appraisal of the evidence, developing and sharing evidence tables. The synthesis of recommendations was done separately, by each guideline development group. The presentation will discuss the pros and cons of this joint approach and any future collaboration.

## PLENARY 3: Programmes in context: capacity building

A-05

### The next frontier: clinical governance and knowledge trafficking in a client-centred world

George P Browman

Tom Baker Cancer Centre, Alberta Cancer Board. University of Calgary, Canada.

At what point does “information” from healthcare research become “knowledge” and at what point in knowledge generation & dissemination are decision makers compelled to act? These inter-related questions are the focus of current clinical/ policy dilemmas in an era of increased accountability and expectations, and the emergence of both “patient-centeredness”, and modern ICTs (information & communications technologies).

The dilemma of “knowledge trafficking” will be discussed in relation to decisions about the appropriate introduction of cancer care interventions following regulatory approvals – specifically, new technologies including drugs. The traditional pathway for managing research knowledge allows for internal due diligence to verify results – first, by the study’s investigators and sponsors, then by external reviewers, and finally by those who make the information public (e.g., journal editors). Such information is often embargoed until public release. This pathway is assumed to ensure that publicly released research information can be counted on, and *presumably acted upon*.

Those responsible for acting (clinical and health policy decision makers) also need to perform due diligence that considers the full body of evidence and ‘worthwhileness’ (financial and otherwise) in applying the results. At the regulatory stage, there is tight coordination between those producing research results and those responsible for approving new products. At the post-regulatory phase, the connection is looser. While those conducting internal due diligence experience the luxury of exploring data on an individual study behind closed doors, those expected to act are immediately thrust into the public eye, and expected to act quickly. The due diligence tool they need to make good decisions is akin to the evidence-based clinical practice guideline (CPG). Those engaged in CPG development also know the vulnerability of the assumptions associated with peer reviewed findings – that they may not represent the whole body of valid evidence because of publication bias.

The rigorous methodologies required for the evidence-based CPG further exacerbate the dilemma of the beleaguered decision maker who is often “shut out” of internal due diligence processes, but who is expected to complete a more complicated one within a short time period.

We need to examine more closely the pathways we use for knowledge generation and dissemination, so that decisions that are important to the public can be made in reasonable time. The presentation will explore the pathways of knowledge generation and dissemination (trafficking) for decision making, how they might be improved, and the implications for CPGs.

A-06

### Capacity building for clinical behaviour change: partnerships with healthcare professionals

Patrick Castel

ONCORA, Centre Léon Bérard, Lyon, France.

Our presentation intends to draw some (social) lessons from a review of the literature on standardization in the industry and on some empirical studies conducted on guidelines development and implementation in the healthcare system.

Firstly, actors have ambiguous attitudes towards guidelines development. On the one hand, people may fear that the development of guidelines could lead to an increased control over their practices. In the industry sector, for instance, sub-contractors perceive the threat that normalization may increase control by their client on their activity. In the healthcare context, physicians do not want that CPG allow hospitals managers and regulation bodies to weaken their professional autonomy and to intervene in the doctor-patient relationship. But, on the other hand, professionals may get involved in some normalization processes to acquire or to restore a collective or individual legitimacy, using these guidelines to justify their practices and to avoid discretionary control and sanctions. Then, two lessons can be drawn: i) organizations and physicians that take the lead of CPG development processes should have or acquire authority in the healthcare system in order to succeed in enrolling other physicians; ii) an agreement has to be found to evaluate how these guidelines turn into practice, since coercive strategies would certainly imply physicians’ resistance more than their involvement.

Secondly, the review of the literature in the industry sector as well as in the healthcare system shows evidence that no guidelines development process may succeed if these guidelines are not grounded on traditional and past practices. This does not mean that CPG are bound to ratify and justify all existing practices. It just means that the actors that lead the development process should i) identify the core logics of the management of peculiar diseases (for instance, the doctor-patient and peer-to-peer interactions – which may vary according to pathologies) and try to make guidelines compatible with them; ii) let some opportunity for local declination, adaptation and collective learning.

Lastly, besides a wish to improve their practices, physicians may get involved in a guidelines development and implementation process to improve their relationships with some of their peers. Indeed, if such a process is conceived as a real collective and participative process, it will represent an opportunity for interactions and dialogues between physicians, which is not so frequent in the medical world. Sometimes, as we are told by the literature, what matters in norms or guidelines development is not the written result but the relational process.

**A-07****Involving patients and carers in guideline development:  
the NICE experience****Marcia Kelson**

Patient and Public Involvement Programme, National Institute for Health and Clinical Excellence, UK.

The National Institute for Health and Clinical Excellence (NICE) produces national guidance on the promotion of good health and prevention of ill health.

NICE produces guidance in three areas of health:

- Health technologies - guidance on the use of new and existing medicines, treatments and procedures within the NHS in England, Wales and (for interventional procedures guidance only) Scotland
- Clinical guidelines (guidance on the appropriate treatment and care of people with specific diseases and conditions within the NHS in England and Wales)
- Public Health – guidance on the promotion of good health and prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector in England

NICE is committed to involving patients, carers and the public in the development of its guidance and has a dedicated Patient and Public Involvement Programme (PPIP) to develop and support that involvement. This presentation focuses on NICE clinical guidelines, and will describe

- the opportunities for patients and carers (both organisations and individuals) to contribute to the development of national clinical guidelines
- the role of the NICE Patient and Public Involvement Programme in developing and supporting opportunities for patient and carer input to the development of NICE guidelines
- a study designed to explore the experience of patient/carers membership of the first 20 NICE guideline development groups, from the perspectives of both the patient/carers members and the professional chairs

For more information about opportunities for patient, carer and public involvement in the production of NICE clinical guidelines, as well as technology appraisals, interventional procedures or public health guidance, please contact Marcia Kelson, Associate Director, NICE Patient and Public Involvement Programme, e-mail: [marcia.kelson@nice.org.uk](mailto:marcia.kelson@nice.org.uk)

## PLENARY 4: Guidelines in context: knowledge translation and implementation

A-08

### The science of changing clinical behaviour

Martin Eccles

University of Newcastle upon Tyne, UK.

The transfer of research findings into practice is unpredictable and can be a slow and haphazard process (AHRQ 2001). Studies suggest that about 30-40% of the patients do not receive care according to current scientific evidence and about 20-25% of care provided is not needed or potentially harmful (Shuster et al 1998; Grol 2001).

A systematic review of 235 studies reporting 309 different comparisons of rigorous evaluations of guideline dissemination and implementation strategies published up to 1998 (Grimshaw et al, 2004) concluded that the majority of interventions observed modest to moderate improvements in care. However, the overall quality of the studies was poor (for example, unit of analysis errors were present in around half of the studies), few studies provided any rationale for their choice of intervention and only limited descriptions of the interventions and contextual data. As a result, it is difficult to assess the likely generalisability of these findings.

If we want to understand how to produce behaviour *change* in a more or less *predictable* manner in a service setting where we will always be faced with a *limited budget* then we need to answer a series of questions.

1. What is the problem and are we sure that it is a problem?
2. What is/are the behaviour(s) that are of interest?
  - a. Specify the behaviour(s); characterise the behaviour(s) (simple/complex, one off/sequential)
3. What do we know of the actors who perform these behaviours?
  - a. Individual/team; role responsibilities.
4. What do we know of the mediators and moderators of the current patterns of the behaviour(s) of interest?
  - a. What importantly shapes the behaviour of the actors? Both internal (cognitive processes) and external (situational/organisational factors)
5. What are the implications of this for intervening?
  - a. Design an intervention with some explicit expectation of changing the behaviour(s) of interest.
6. If we intervene, what happens?
  - a. Measure the effect(s) and costs, using the most robust design possible as effects are likely to be relatively small and biases relatively large.
7. Was the intervention faithfully delivered or modified and if so how?
  - a. Measure the delivery and pre-defined important characteristics of the intervention
8. Did the intervention modify the targets that it was aimed at?
  - a. Measure the mediating variables
9. Did 7 & 8 illuminate 6?
  - a. Perform a multi-level model analysis incorporating the variables from 6 and 7.

Models and frameworks offer a structure within which to think about these questions. However, the research effort is a multi-method, interdisciplinary one.

Agency for Health Research and Quality. Translating Research Into Practice (TRIP)-II. Washington, DC: Agency for Health Research and Quality, 2001

Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay C, Vale L, Whitty P, Eccles M, Matowe L, Shirren L, Wensing M, Dijkstra R, Donaldson C. Effectiveness and efficiency of guideline dissemination and implementation strategies. *Health Technol Assess* 2004; 8(6).

Grol R. Successes and failures in the implementation of evidence-based guidelines for clinical practice. *Med Care* 2001;39:1146-1154.

Schuster M, McGlynn E, Brook RH. How good is the quality of health care in the United States? *Milbank Quarterly* 1998;76:517-63.

## A-09

## Implementation - mission impossible or a great challenge?

Eeva Ketola

Current Care, Finnish Medical Society Duodecim, Helsinki, Finland.

There are several accepted and well documented ways to make evidence based guidelines. The real challenge is how to put evidence into action and into everyday practice. The topic is hard to examine because of the complexity of health care, its decision making, structures, health professionals and patients, and there are differences between countries. Implementation can be divided into the guideline development process, diffusion, dissemination and real implementation.

Several biases relate to research and gathering of evidence, such as treatment bias, selection bias, attrition bias. The guideline developers need to evaluate the directness and applicability for the current (patient) situation, values, resources and practice. The guideline has to be readable, understandable, visually stimulating, easy to access, and accompanying electronic tools that can enhance implementation.

The guideline itself without any formal activities can diffuse via dedicated professionals and electronic databases. Dissemination may include activities like marketing, education, targeting electronic availability by portals to health care professionals. Grimshaw and colleagues showed that traditional dissemination improves patient care by a median of 10%.

Implementing a guideline means that it is put in to real life reaching every day users and their common problems treating patients with multiple problems, making referrals to specialists, specialists using guidelines in their decisions, and health professionals planning common practice treatment paths or chains. Evidence is one basis, others are understanding the context (social, economical, organisational and political) and facilitation. Changes in subelements of them all are needed in the whole process. Understanding of the subelements might help the professionals to more effective strategies.

Understanding the psychology of change, knowing possible barriers, past history of projects, help of quality tools (like auditing and feedback, quality indicators, benchmarking), problem based learning (PBL), continuous medical development (CPD), electronic reminders (decision aids), teamwork, marketing, multifaceted and multiprofessional interventions, might lead for success. Yet we do not know which combinations are most effective. Mean while buy, steal and borrow all the ideas and report and exchange your experiences, because it's our best hope to improve the implementation processes!

## A-10

## Getting the message across

Susan Michie

Centre for Outcomes Research and Effectiveness, University College London, UK.

"Getting the message across" from guideline to behaviour requires people to be clear about what exactly they should do, be favourably disposed to the guidelines, understand potential barriers to implementation and have plans to avoid or overcome these barriers.. How guidelines are **worded**, **perceived** and **enacted** are key to their implementation.

**Guideline wording:** Psychological evidence suggests that recommendations are more likely to be implemented if formulated in concrete and specific terms (Michie and Johnston, 2004). Three empirical studies support this. A Dutch observational study (Grol et al, 1998) found guidelines were followed on 36% occasions when they were vague and non-specific and on 67% when concrete and precise. A US RCT found that doctors responded to vignettes about low back pain with appropriate ordering of tests more often when given guidelines with specific recommendations (Shekelle et al, 2000). A UK RCT investigated intention to follow a patient version of guidelines for the management of schizophrenia amongst 84 mental health users. Those with more specific recommendations had greater intention, more positive attitudes towards the guidelines and perceived greater control over their implementation (Michie and Lester, in press).

**Guideline perception and enactment:** Recognising the absence of psychological theory in implementation research, a consensus project of health psychologists and health service researchers produced a theoretical framework for understanding the processes involved in changing the behaviour of healthcare professionals (Michie et al, 2005). An interview schedule, based on this framework, has been used to investigate problems amongst UK GPs in implementing national guidelines to reach targets (Michie et al, 2004). Those who did not reach targets, compared to those who did, felt that the guidelines undermined their professional identity and role, especially their autonomy and sense of ownership of their work. They were more likely to perceive adverse consequences of implementing the guidelines, both for themselves and their patients.

**Conclusion:** Developing a theoretical understanding of problems in guideline implementation lays the basis for designing effective interventions to improve professional practice.

Michie and Johnston (2004) Changing clinical behaviour by making guidelines specific. *BMJ*, 328, 343-345.

Michie and Lester (in press) Words matter: Increasing the implementation of clinical guidelines *QSHC*.

Michie et al (2004) Evidence into practice: a theory based study of achieving national health targets in primary care. *Journal of Evaluation in Clinical Practice*, 10, 447-456.

Michie et al (2005) Making psychological theory useful for implementing evidence based practice: a consensus approach, *QSHC*, 14, 26-33.

## PLENARY 5: Guideline in context: evaluation

### A-11

#### Exporting the guideline development cycle: developing high quality evidence-based audit tools

**Melissa C Brouwers**

McMaster University and Cancer Care Ontario, Hamilton, Ontario, Canada.

Clinical practice guideline recommendations should reflect best care options based on the rigorous search, selection, synthesis and interpretation of evidence. Objective performance data on the effectiveness of the application of clinical practice guidelines enables healthcare care providers, administrators and policy makes to evaluate their practice, make changes to improve care, and demonstrate accountability to the health care system. Strategies to identify and choose among audit criteria should be as much based on evidence and application of sound methodological principles as are the guidelines and recommendations we are trying to measure. The goals of this session are four-fold.

1. Identify conceptual and empirical approaches for defining audit criteria. Issues that will be addressed include:

(i) differentiating between the labels audit criteria, quality indicators, quality outcomes, performance measures and benchmarks.  
(ii) reviewing the types of criteria that can be derived from clinical practice guidelines including structure, process and outcome measures.

2. Propose how the guidelines development cycle can be exported and used to identify audit criteria.

3. Discuss the challenges of implementing a high quality auditing process. Issues that will be addressed include:

(i) trade-offs between design a feasible versus ideal auditing strategy  
(ii) information systems as enablers and limiters to auditing processes

4. Reflect on the benefits and threats of introducing public reporting of audit criteria into a health care system.

The experiences of Cancer Care Ontario's Program in Evidence-based Care [http://www.cancercare.on.ca/index\\_practiceGuidelines.htm](http://www.cancercare.on.ca/index_practiceGuidelines.htm) and the Cancer Quality Council of Ontario <http://www.cancercare.on.ca/qualityindex/index.html> will be used to illustrate some initial efforts and progress in the auditing field.

### A-12

#### Monitoring the use and impact of guidelines-experience in the UK ambulance service

**Joanne Fisher**

Warwick Medical School, The University of Warwick, UK.

NO ABSTRACT AVAILABLE

## A-13

## Monitoring the use of guidelines in practice: a case study in France

Isabelle Ray-Coquard, Thierry Philip, Franck Chauvin  
Centre Léon Bérard, Lyon, France.

A cancer network of general or private hospitals of a French region was started in 1995 for improving quality of care and rationalizing medical prescriptions. The impact of implementing a clinical practice guidelines (CPG) project was assessed by evaluating conformity with the guidelines in medical practice; significant changes were observed within the network while no changes were observed in a control region without cancer network. Parallel to the medical audit, we evaluated the application of these CPGs in addition to the consequences of harmonizing clinical practices with respect to the distribution of resources by specifically analyzing the post therapeutic follow-up of patients with localized breast cancer. We observed in the follow-up of patients, a large decrease in costs along with the evolution of medical practices toward CPG compliance. In the same way, evaluation of the predictive factors to the use of CPGs or scientific evidence suggests the impact of patients' characteristics on the compliance to guidelines. Behind, we evaluated the persistence of conformity to guidelines through a new medical audit. In the experimental group, the compliance of medical decisions with CPG was significantly higher in 1999 than in 1996 for colon cancer and similar for the two periods for breast cancer: The conclusions of this new step was to consider the CPG program for cancer management able to produce persistent changes in medical practice in our cancer network in term of conformity with CPG. For more rarely tumors (as soft tissue sarcoma), without any regional program of implementation for national guidelines, we evaluated medical decisions to treated such kind of patients. Effectively, primary management of adult soft tissue sarcomas (STS) is characterized by heterogeneity across centers. Several previous studies suggest that it is improved when coordinated by specialized sarcoma centers. In our study, only 7% of the cases were reviewed by formal multidisciplinary committee before biopsy. Interestingly in multivariate analysis, pre-surgery multidisciplinary discussion, management in reference center, and management within cancer network independently predicted conformity to CPGs. In the same way, local relapse correlated to quality of resection, macroscopic extent of surgery, type of hospital; but also review of patient file by multidisciplinary committee or not before surgery; management in the cancer network or not; and conformity of radiotherapy to CPGs. For metastatic relapse, correlation was only found with histological grade, multidisciplinary committee decision after surgery, and management in the cancer network or not. These results were suggesting for the impact of care management, multidisciplinary approach and conformity to guidelines on the risk to relapse and death for the patients. All of these experiences, without systematically insurance of formal scientific evidence, hardly suggest the importance of the cancer organization management to predict benefice for patients and to ameliorate quality management and survival.

## A-14

## Guidelines in practice: a case study from Québec, Canada

Nicole Hébert-Croteau, with the collaboration of Jean Latreille, Linda Perron, Diane Major, Michèle Rivard, Caty Blanchette and Jacques Brisson  
Institut national de santé publique du Québec, Québec, Canada.

**Background:** Practice guidelines are based on the best clinical evidence currently available. Although patterns of care studies assessing compliance with these recommendations are frequent, their impact on outcomes of disease has not been systematically evaluated.

**Objectives:** The goal of this population-based research project was twofold. First, compliance with practice guidelines for treatment of early-stage breast cancer in Québec, Canada, was evaluated using a population-based approach. Second, the impact of compliance with guidelines on survival was assessed.

**Materials and Methods:** We selected three cohorts of patients newly diagnosed with node-negative invasive breast cancer in 1988/89, 1991/92 or 1993/94, among residents of five health regions from Québec, Canada, using as sampling frame the Québec tumour registry and the Québec hospital discharge database. Data on the patient, her disease, details of treatment received, characteristics of the source of care, including both the attending physician and hospital of treatment, as well as recurrences or death, were obtained by two successive reviews of medical charts supplemented by direct queries to physicians. Data analysis used multivariate logistic regression, Kaplan-Meier estimation and Cox proportional hazards models.

**Results:** The study population included 1,578 women with stage 1 or 2 breast cancer, of whom 1,541 had follow-up information to the end of 1999. Using the St-Gallen 1992 consensus recommendations for systemic adjuvant therapy of node-negative breast cancer as standard of care, compliance with guidelines was shown to increase substantially between 1988 and 1991 (63.7% and 75.7%), but not thereafter (75.9%). Most deviations from guidelines came from under-treatment, especially omission of chemotherapy among individuals for whom it was the minimal recommended systemic therapy. Seven-year survival was 88%, 84% and 74% in women at minimal, moderate or high risk of recurrence. Both risk category and compliance with guidelines were independent significant predictors of survival ( $p < 0.0005$ ). Data on patterns of care in specific subgroups of patients and results of treatment according to recommended delay will also be presented.

**Conclusions:** The sole publication of guidelines for treatment has little impact on medical practice. Because these recommendations have the potential to improve outcomes of breast cancer, effective dissemination strategies and continuous monitoring of compliance should be implemented.



# WORKSHOPS

## WORKSHOP-A01

### Ethics and guidelines: when do guidelines become an ethical commitment?

Jean Latreille, George Browman, Nicole Hébert-Croteau.

**Objective:** Explore and discuss the ethical issues surrounding the practice of evidence-based medicine, from knowledge of evidence to guideline development, dissemination, implementation and adoption.

**Contents:** Dr Hébert-Croteau wrote an article (J Clin Oncol. 2004 Sep 15;22[18]:3685-93) last year that confirmed that adherence to guidelines is associated with improved survival in women with node negative breast cancer. This article and others raise questions that we would like to discuss, along with the implications the answers might have on our practice. To what extent are we ethically obliged to promote and diffuse to all concerned the conclusions of systematic reviews or evidence-based guidelines? Some guidelines address questions of best treatments, others the utility of an investigational process. Our non-adherence to their conclusions could have a serious impact on our patients' lives or to the status of their financial wellbeing. When should institutions like medical corporations, colleges or even governments step in to make sure that physicians practice according to guidelines? Who should be informed of the conclusions of evidence based reviews: doctors, nurses, pharmacists, patients, and governments? Is publication on a www site sufficient? If one becomes aware that one is not practicing according to guidelines what should one do?

Very expensive new anti-cancer drugs and new investigation tools will be approved for commercial use in the next months, some will have at most a minimal benefit while others a very significant one. To what extent do we have an ethical obligation to be very efficient in our appraisal of this new information and rapidly produce evidence-based guidelines? Are we doing our job well? How can we help each other to do it better?

## WORKSHOP-A02

### Social marketing: a solution to change behaviours?

Alain Bérard, Christelle Nieraad.

The industrialists manage to sell what they want with no matter whom. Thanks to the techniques of marketing, it's possible to make change the behaviours: to pass from a position of neutrality compared to their products towards a behaviour of purchase. From where the idea to use the marketing plans in order to make change the behaviours of the individuals: to pass from a behaviour at the risk towards a neutral or preventive behaviour.

Social marketing was "born" as a discipline in the 1970s, when Philip Kotler and Gerald Zaltman realized that the same marketing principles that were being used to sell products to consumers could be used to "sell" ideas, attitudes and behaviours. Kotler and Andreasen define social marketing as "differing from other areas of marketing only with respect to the objectives of the marketer and his or her organization. Social marketing seeks to influence social behaviours not to benefit the marketer, but to benefit the target audience and the general society." Like commercial marketing, the primary focus is on the consumer--on learning what people want and need. Marketing talks to the consumer, not about the product. The planning process takes this consumer focus into account by addressing the elements of the "marketing mix." This refers to decisions about 1) the conception of a Product (positive health and social behaviours : using condoms, reduction in the consumption of tobacco...), 2) Price (effort required: physical effort, mental effort, financial effort...), 3) Place (distribution refers to decisions about the channels through which consumers are reached with information or training: television, radio, display panels, doctors' offices...) and 4) Promotion (integrated use of advertising, public relations, promotions, media advocacy, personal selling... The focus is on creating and sustaining demand for the product.).

Social marketing has been used extensively in international health programs by national or international health organizations (UNO AIDS, Atlanta CDC, U.S National Cancer Institute, Health Canada...). And about cancer?

**Objectives:**

- to know the various steps of a social marketing plan,
- to know to work out one or more messages to the attention of the target audience starting from the laid down medical objectives
- to differentiate the place from the professional of health of that of the specialist in the communication (advertising)

**Contents:**

- 45 minutes of theoretical presentation of the social marketing techniques
- 45 minutes of round table with the assistance around a concrete exercise.

## WORKSHOP-A03

### Modified delphi methods in guidelines development

Bernard Burnand, John-Paul Vader.

Modified Delphi methods have been present in efforts to evaluate and improve quality of care for several decades. The most used and studied of these is the RAND / UCLA appropriateness method. In defining appropriate care, it seeks to combine evidence from the literature with a systematic quantification of experience of recognized multidisciplinary clinical experts. The method is finding increasing application in areas other than merely developing criteria to assess the appropriateness of healthcare indications, for which it was originally developed.

**Objective:** Drawing from real examples and on the experience of the facilitators, this workshop will present, in a step-by-step manner, the RAND / UCLA appropriateness method as it applies to developing criteria for the appropriateness of healthcare interventions. Various enhancements and developments to the initial method will be presented, demonstrated and discussed: the step from defining appropriate care to defining necessary care, the ability for experts to vote in real time and receive feedback in real time, the ability to make available detailed appropriateness criteria on the web or at point-of care, and how to move from criteria for the appropriateness of care to clinical guidelines.

**Content:** Advantages and limits of the method will be discussed as will prospects for applying the method to other areas of guidelines development: including defining priorities and validating specific recommendations. Ample room for discussion and interaction during the workshop will be ensured.

## WORKSHOP-A04

### Guideline development matrix-how to improve the guideline process

Eeva Ketola, Minna Kaila, Jorma Komulainen, Pekka Jousilahti.

*Background:* Many guideline producers struggle with motivating the professionals working in guideline groups. In Finland the editorial work is paid, but the professionals are working on a voluntary basis.

The process is found quite long and time-consuming and it reveals many topics that the editors helping the guideline group should be aware and handle. It may also reveal gaps of the knowledge that should be improved. The main task for the employed editors is to make the guideline process as fluent as possible.

In this workshop we show in a practical way how to find the key elements of the work by using quality improvement methods and how to make consensus which tasks should be improved.

The workshop is divided into three phases described beneath in brief.

Type: interactive training for max 30 persons

**Objective:** To give tools for guideline producers to get even better guidelines

**Contents:** Phase I: A brainstorm in group with QI methods producing 7 most important issues /sectors in guideline work.

Phase II: What should be improved? This contains the former history and the tasks what should be done.

Phase III: A short example from Finland about guideline development is introduced

## WORKSHOP-A05

### Grading quality of evidence and strength of recommendations

Gordan Guyatt, Regina Kunz.

**Objectives:** To gain an understanding of the issues involved in grading the quality of evidence that underlie recommendations in management of patients and organization of health services and in determining the strength of those recommendations. Further, to gain familiarity with a particular approach, that of the GRADE working group.

**Content:** Users of clinical practice guidelines and other recommendations need to know how much confidence they can place in recommendations. Guideline developers currently use varying approaches to grading the quality of evidence and recommendations leading to confusion among guideline developers and users. Individuals from international organizations and academic institutions formed the Grading of Recommendations Assessment, Development and Evaluation (GRADE) working group and held 13 meetings and several workshops over a period of 4 years.

We will conduct two linked workshops. The first will involve a presentation of the issues involved in rating quality of evidence and strength of recommendations, a conceptual demonstration of the GRADE approach, and a demonstration of computer software that GRADE has developed. The presentation will encourage interaction between presenters and the audience. The second workshop will involve the participants working through the GRADE approach with a real-life example.

The second workshop will be limited to the first 20 registrants - the remainder can participate in the first workshop, and will be wait-listed for the second. Participation in the second workshop is contingent on participation in the first.

## WORKSHOP-A06

### Health economics in guidelines: case studies from NICE

Joanne Lord.

**Objectives:** It is now quite widely accepted that decisions about the use of new expensive health technologies should be based on their cost-effectiveness, as well as their clinical effectiveness. However, consideration of cost-effectiveness in clinical guidelines is still unusual. This is partly because of the traditional focus of guidelines on assisting individual patients and practitioners to make decisions about their use of health care. This differs from the perspective of a health care payer, whose objective is to maximise health gain across a population given limited resources.

The National Institute for Health and Clinical Excellence (NICE) develops clinical guidelines for the National Health Service in England and Wales. Unlike many guideline developers, NICE has an explicit remit from the government to take account of cost-effectiveness in its guidelines. However, this is not easy. The size of many guidelines means that systematic economic evaluation of every possible permutation of the diagnostic/treatment pathway is not possible. This then leaves difficult questions about how to select topics for economic evaluation and efficiently target the economists' time.

The purpose of this workshop is to explore some of the issues around the inclusion of economic considerations in clinical guidelines. In particular, we shall discuss:

- Why should clinical guidelines take account of cost-effectiveness?
- What are the barriers and facilitators to the use of economics in a guidelines programme?
- When should cost-effectiveness analysis be done and by whom?
- How can we assess the cost-effectiveness of individual recommendations?
- How can we compare the cost-effectiveness of alternative systems of care, or diagnostic/treatment algorithms?

**Contents:** The session will begin with a short introductory talk about the reasons for incorporating economics in guidelines, and about some of the challenges and potential solutions that have been suggested for doing so. Discussion about these issues will be encouraged.

Case studies from NICE guidelines will then be used to illustrate some of the potential solutions and pitfalls that we have experienced. Following a brief presentation of each case study, participants will be invited to comment and discuss examples from their own guidelines.

The material will be presented in a simple and non-technical way, so that participants without prior knowledge or experience of health economics can understand. However, the case studies will also include some more advanced material of interest to health economists.

## WORKSHOP-A07

### The AGREE instrument four years on: what do the users think?

Françoise Cluzeau, Melanie Chesnokov, Jako Burgers on behalf of the AGREE Research trust (ART).

**Objectives:** The AGREE (Appraisal of Guidelines Research and Evaluation) Instrument was developed to assess the methodological quality of clinical practice guidelines (CPGs). Since its publication in 2001 it has had a major international influence on the way CPGs are developed and appraised. It has been translated in twelve languages, including Russian and Chinese. It is used for the formal assessment of guidelines in many countries and forms a core component of evidence-based medicine educational programmes.

The widespread use of AGREE has generated numerous reports and feedback about its acceptability and applicability. Between 2002 and 2004 a series of dissemination events were held across some 20 European countries as part of the EU-funded AGREE Accompanying Measures (AGREE AM) Project. This included an evaluation of the perceived usefulness and face validity. In addition, there have been an increasing number of publications focusing on the internal validity of the Instrument, prompting further international research in this area.

The purpose of this workshop is to explore some of the issues around the use of the AGREE Instrument and its acceptability and applicability. This workshop links with the workshop: "AGREE Next Steps", which will discuss the reliability and validity of the AGREE Instrument.

Specifically we will discuss:

- What are the users perceptions of the value and relevance of AGREE?
- What is the main contribution of AGREE to CPGs?
- What are the major problems identified with the present version of the Instrument?
- What further improvements or developments could be made?

**Contents:** The session will begin with a presentation of the results from the AGREE AM dissemination Project, and with a summary of the issues raised in the published literature.

We will use some assessed guidelines as case studies to illustrate some of the potential problems with the Instrument, and areas for improvement. Participants will be invited to comment and discuss using examples from their own experience.

The discussions will assume that participants have prior knowledge or experience of the AGREE Instrument.

## WORKSHOP-A08

### Patient and public involvement in healthcare

Anne Bataillard, Julien Carretier, Marcia Kelson, Sally Gomersall.

**Objective:** Exchanges on the topic of public and patient involvement in clinical guidelines development and healthcare programs. One of the key challenges in clinical guidelines development is actively involving patients in a way that they can be invaluable assets. This roundtable is centred on sharing a diversity of approaches on the subject as will attest the variety of the organisations which will be represented.

**Contents:** Various representatives from different organisations will describe how they manage the articulation between experts and patients perspectives when producing a clinical guideline.

Participants include officials of:

- HAS (Haute Autorité de Santé) is the French National Authority for Health and as such is charged with improving quality of care, strengthening ties with professionals of the healthcare system, and ensuring transparency of medical information. The HAS also produces clinical guidelines with the involvement of patients.
- AFSSAPS (Agence Française de Sécurité Sanitaire des Produits de Santé) is entitled to ensure health safety standards remain optimum and wants to promote innovation when it is genuine and when it meets the important needs of patients. As such this agency produces guidelines for experts as well as for the general public.
- NICE (National Institute for Health and Clinical Excellence) is a direct emanation from the English NHS (National Health Security) and is responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health, it is a foremost authority when it comes to involving public and patients in guidelines development.
- LNCC (Ligue Nationale Contre le Cancer) is a public association concerned with the issue of cancer. It acts as a sponsor for researchers, diffuses cancer specific information and tries to help prevent this disease. Is also supports patients through information on treatments and other means.
- SOR (Standards, Options et Recommandations) is a national program from the French Federation of Comprehensive Cancer Centre which is aimed at producing cancer specific clinical guidelines (SOR Spécialistes) and evidence-based patient information (SOR SAVOIR Patient).

## WORKSHOP-A09

### Improving care through implementing guidelines

Jan Davies, Catherine Marshall.

**Objective:** The objective of this training course is to train participants in practical techniques for using guidelines to improve consumer care.

**Content:** The workshop will provide hands on training in quality improvement methodologies and how they can be applied to a guideline implementation project in clinical settings. Jan Davies and Catherine Marshall Workshop describe how two GIN Members (NZGG and NICS) are sharing their experiences in guideline development and quality improvement methodologies from each other and to create exciting opportunities to implement guidelines in clinical settings. The workshop will cover a brief background to the collaboration and then focus on the techniques and skills applied in both Australia and NZ. Workshop participants will learn:

- How to identify key guideline recommendations that will make real differences and enhance consumer care
- How to map the consumer journey through a care pathway and identify barriers to implementing the guidelines
- How to develop indicators that will assess improvements in health outcome and guideline application.

## WORKSHOP-A10

### Selecting medicines:

1. The development of the WHO model list of essential medicines
2. How to develop a national EML

Suzanne Hill, Hans Hogerzeil.

**Objective:** By the end of the session, participants will be able to:

1. Describe the process used by WHO to add or remove medicines from the Model List of the WHO
2. Describe and understand the basis of the decisions to include methadone on the list and not include tenofovir
3. Identify additional information that maybe needed to make decisions about these products at a national level
4. Describe additional information that may be needed to assess the cost-effectiveness of these products in different contexts.

**Content:** The concept of essential medicines is that a limited range of carefully selected essential medicines leads to better health care, better drug management, and lower costs. The definition of essential medicines is: "Essential medicines are those that satisfy the priority health care needs of the population". The first International Model list of essential medicines was published in 1977, and included approximately 200 active substances and the list is revised every two years by WHO Expert Committee. The most recent list revised this year contains 306 active substances.

The processes used for selecting medicines for inclusion on the International Model List have been revised and updated to take account of current practice and standards for assessing clinical evidence. In these two sessions, we shall:

- Review the processes and methods used to add/subtract medicines from the international model list of essential medicines
- Review two recent examples of drugs that were considered by the Expert Committee in April 2005, methadone (for the management of opioid dependence) and tenofovir, an additional antiretroviral for the treatment of HIV. The Committee approved methadone but did not approve the addition of tenofovir. We will therefore review a summary of the evidence presented for each product see how the final committee decision related to the evidence, considering the scientific data as well as political issues.

The International Model List can be used by countries as the basis for developing their own model lists. Although international cost-effectiveness comparisons are challenging, at the national level, cost-effectiveness can become an important consideration in choosing medicines for supply or reimbursement on insurance schemes. In the second part of the workshop we will therefore consider what additional information might be required to develop an EML using cost-effectiveness criteria in addition to quality, efficacy and safety.

## WORKSHOP-A11

### Diagnostic guidelines:

### what makes them different from therapeutic recommendations?

Rita Horvath, Joseph Watine.

**Objectives:** There is increasing concern about the quality and reliability of practice guidelines, especially in the field of laboratory medicine, as most recommendations are developed by clinical specialty societies, often without involving laboratory professionals.

It is clear that the methodological quality of current guidelines must be improved in laboratory medicine as well as in other areas of medicine. It is not clear however if better methodological quality in guidelines would necessarily result in more valid recommendations, ie, those that are supported with consistent research evidence, or, when evidence is conflicting or lacking, with sufficient consensus among the guideline development team. The purpose of this workshop is to explore some of the issues around methodological quality and validity of recommendations in practice guidelines for the use of laboratory investigations in the care of specific diseases. In particular, we shall discuss:

- Why diagnostic recommendations are different from therapeutic ones
- Do we need different methods for developing evidence-based diagnostic guidelines?
- Do we need reporting standards for (diagnostic) guidelines?

**Contents:** The session will begin with a 25-30 minute talk describing the assessment of the methodological quality of 28 widely used guidelines for the diagnosis and monitoring of diabetes mellitus. Then in another 25-30 minute talk we shall see if there is a link between methodological quality and validity of recommendations in 11 practice guidelines providing advice for the use of laboratory tests in the management of non-small cell lung cancer patients.

Following these 2 talks, at least 30 minutes will be dedicated to a round-table discussion about these issues, as summarized above (see 3 points in the "objectives").

The material will be presented in a simple way, so that participants without prior knowledge or experience of these issues can understand and participate in the discussion.

## WORKSHOP-B12

### Selecting medicines:

1. The development of the WHO model list of essential medicines
2. How to develop a national EML

Suzanne Hill, Hans Hogerzeil.

See abstract for workshop-A10

## WORKSHOP-B13

### Are evidence-based guidelines really evidence-based?

Jos Kleijnen.

**Objective:** Nowadays, many guidelines are claimed to be "evidence-based". However, among guidelines, there is great variation in the proportion and number of recommendations that are supported by an up-to-date systematic review of the evidence. This workshop will address the tension between the aim of being evidence-based, and the constraints of time, monetary and human resources of a guideline development process.

**Contents:** Many guidelines have a broad scope and might easily contain 50-100 questions and recommendations. If guidelines are to be truly evidence-based, all recommendations should be supported by an up-to-date systematic review of the best available evidence.

However, assuming an average full systematic review for a guideline question costs € 75,000 and takes 9 months to prepare, it is immediately clear that few truly evidence-based guidelines exist.

This workshop will start with a description of a sample of guidelines, giving a taste of the range of (non) coverage of recommendations by up-to-date systematic reviews. This will be followed by discussions about what are the major barriers in the process of producing systematic evidence reviews for guidelines. Subsequently, we will address ways in which such barriers might be dealt with in a practical and pragmatic manner. This workshop will be most useful if participants are prepared and willing to engage in discussions and to share experiences.

## WORKSHOP-B14

### Guideline adaptation: the way forward?

Jako Burgers, Bernard Burnand, Najoua Mlika-Cabanne, Louise Paquet.

**Objectives:** Present and discuss an explicit approach to guideline adaptation.

**Contents:** Guideline adaptation can be defined as the use of high-quality guidelines developed in a distinct setting as an alternative to de novo guideline development.

The process of guideline adaptation should ensure the production of relevant, applicable and up-to-date guidelines without unnecessary duplication of effort.

We will present a stepwise approach, including the following steps:

1. Define guideline topic;
2. Search for existing guidelines;
3. Assess guideline quality and applicability;
4. Update literature;
5. Adapt recommendations to target setting;
6. External review;
7. Implementation.

Essential in this process is that the clinical questions of interest should be specifically described, taking into account Patient population, Intervention(s), target Professionals, Outcomes and Healthcare setting (PIPOH). These questions should be covered by the guideline(s) used for adaptation.

Guideline adaptation is a challenge for guideline developing organisations to improve understanding on how culture and organisational factors and values influence the translation of evidence into recommendations for clinical practice in different settings. A manual will be available explaining the process and different steps in detail.

International validation of the adaptation process is under way in the context of the development of guidelines in oncology and other topics.

The participants will be invited to comment on this approach to guideline adaptation and to share their experiences.

## WORKSHOP-B15

### Pushing forward guidelines culture in Latin-American, Portuguese and Spanish environments

Rodrigo Pardo Turriago, Ignacio Marin.

**Objectives:** To facilitate a closer contact between ibero-americans in order to raise cooperative and partnership initiatives. Specifically by two objectives:

To move from the step of developing guidelines to the implementation one, by sharing implementation experiences.

To build a cooperative help network to increase the quality of the guidelines development process, putting methodological tools available.

Format: The workshop is divided in two parts:

a) With a duration of 60 minutes, would be a round-table type.

b) With a duration of 30 minutes, would be a discussion type workshop

**Contents:** a) Panel on Lessons learned from CPG Local Adaptation and Implementation Experiences. Four speakers will make 10 minutes presentations of real experiences in Latin American or Spain settings of adaptation or implementation of guidelines, trying to answer three questions: What kind of things you would not repeat anymore? What tools that you used, could be available to others? What is the main lesson that you learned from your experiences? There would be a 20 minutes period for discussion. Assistants can expect real life wrongs and success examples.

b) How to build a CPG- tools ibero-american translation group? One speaker will introduce for 15 minutes a previously discussed proposal from RED IBEROAMERICANA-GPC to gather a group with a common methodology an approach for the translation into Portuguese and Spanish of well-accepted tools in the field of Clinical Practice Guidelines (i.e., GRADE system, Balance sheets, etc). Assistant will have the opportunity to clarify whether they are interested and conditions to participate in this joint adventure.

## WORKSHOP-B16

### Guideline activities in the countries of German language - state of the art and opportunities for collaboration

["Leitlinien-Aktivitäten in den deutschsprachigen Ländern" - Bestandsaufnahme und Kooperationsmöglichkeiten - in German only]

Günter Ollenschläger, Ina Kopp.

**Objectives:** Guideline experts of German language have been playing an active role in the development of the Guidelines International Network since 2001. In September 2005, 9 institutions from Austria (1), Germany (7), and the German language part of Switzerland (1) are organisational G-I-N members; a total of 228 individuals have direct access to the International Guideline Library. About 10% of the abstracts accepted for the Lyon conference are of German language origin.

Against this background, the workshop is intended as an informal open discussion forum for Austrian, German, Swiss and other interested participants of the Lyon, and intended to be to be another step towards international collaboration in the guideline community.

**Contents:** The facilitators will give a short overview on the presentations from German language countries displayed during the G-I-N conference and on guideline projects of nation wide interest in Germany (e.g. the new German Checklist for Guideline Appraisal DELBI, the Programm for National Disease Management Guidelines NVL, and patient participation in guideline development and implementation. The authors of the accepted abstracts are welcomed to give short presentations on the backgrounds and consequences of their results presented in Lyon.

By means of a structured open discussion, topics and opportunities for regional, national and international collaboration will be identified. The results of the workshop will be published in the German Journal for Evidence and Quality in Healthcare (ZaeFQ) and on the G-I-N website.

## WORKSHOP-B17

### Nordic workshop at the GIN-meeting in Lyon

Frode Forland, Håkon Lund.

**Objective:** There is established an informal Nordic network under the GIN umbrella for institutions and people from the Nordic countries who are working on developing and implementing guidelines to the health services.

The aim of this workshop is to gather people from the Nordic countries to share knowledge and information about what guideline processes are ongoing in the different Nordic countries, and to discuss the format and the content of establishing a Nordic language branch of the GIN Guideline Database.

**Content:** When it comes to Health Service Systems, the Nordic Countries are historically very much alike. There is a high degree of public services both in primary care and secondary care. Health services are basically paid by taxes and there seem to be a common attitude about prioritisation, indicating that seriousness, effect and cost/effectiveness are valid criteria for the distribution of services.

People from three of the Nordic countries understand each others languages (Norway, Denmark and Sweden) and many people from Island and Finland are also able to understand, read and write one of the other Nordic languages.

These two prerequisites, culture and language, indicate that we could share more and add value to our knowledge base and guideline databases by a more practical cooperation on building a Nordic language version of the GIN database. We would like to share information about the first steps taken from Norway to establish such a Nordic Guideline Database by a presentation from Håkon Lund:

There are some issues that need to be discussed:

- Who should be responsible for the running of the Database
- How can we assure the quality of the content
- Is there a need for separate Nordic language versions for each of the Nordic countries?
- Is there a need to establish a more formal steering body for such an initiative
- How does such a Db interfere with other national initiatives, such as The Norwegian Electronic Library, The Danish Sundhedsportal or the Finnish Current guidelines Db?

## WORKSHOP-B18

### Grading quality of evidence and strength of recommendations

Gordan Guyatt, Regina Kunz.

See abstract for workshop-A05

## WORKSHOP-B19

### Evaluation des pratiques et référentiels en cancérologie

Xavier Rebillard.

#### Objectifs :

- Comprendre comment les agences nationales en Santé (HAS, INCa) envisagent l'évaluation des pratiques et des référentiels en cancérologie.
- Débattre, à partir d'expérimentations concrètes, des moyens de résoudre les contraintes de mise en œuvre des référentiels en pratique quotidienne et à l'évaluation de leur application.
- Préciser l'apport des technologies innovantes issues de la recherche en informatique dans la résolution des problèmes médicaux liés à l'usage au quotidien des référentiels et à l'évaluation des pratiques
- Mesurer par la pratique médicale l'impact des référentiels et leurs nécessités d'adaptation

**Contenu :** L'évaluation des pratiques médicale et l'amélioration de la qualité des soins sont des thèmes communs aux projets de la Haute Autorité en Santé (évaluation des pratiques professionnelles, accréditation des équipes, certification V2) et de l'Institut National du Cancer (mesures du plan cancer sur l'organisation des soins).

Evaluer et améliorer les pratiques médicales : Au delà de la rédaction, la diffusion et l'implémentation des recommandations, l'un des points essentiels est de mesurer collectivement en quoi la mise à disposition de référentiels validés impacte la pratique des intervenants, médicaux ou soignants, et quels sont les modes d'organisation à favoriser pour renforcer cet impact.

Les attentes de la HAS et de l'INCa et le rôle des sociétés savantes et des SOR seront précisés par leurs acteurs ainsi que les projets et axes de travail proposés pour répondre à ces objectifs.

Plusieurs exemples concrets d'organisation seront présentés, provenant de réseaux de cancérologie (recueil structuré des données cliniques et facilitation de consultation des référentiels) ou mis en place directement par une agence régionale de l'hospitalisation (Franche Comté) au travers de systèmes informatiques communicants.

L'introduction dans nos systèmes informatiques de principes innovants de gestion des contraintes, issus de la recherche en informatique (Normind), apporte une aide remarquable qui permet de confronter en temps réel la pratique saisie aux référentiels sélectionnés et de conditionner diverses actions sur le devenir du dossier du patient. Aucune obligation n'est faite à l'utilisateur de se conformer à une solution pré déterminée ; le principe informatique n'est pas bloquant à la différence des systèmes experts habituels.

Il autorise la transgression des règles (en incitant à en préciser la raison) et repère les épisodes de soins ou dossiers "hors consensus".

Cette action constitue une procédure d'auto-contrôle efficace pour signaler les dossiers incomplets, hors consensus, ou pour lequel les règles du référentiel sont transgressées, l'adéquation de sa pratique aux recommandations ou la nécessité de discussion en réunion de concertation pluridisciplinaire de certains épisodes de soins (et à l'inverse valide l'archivage direct de certains autres).

Evaluer les référentiels médicaux : Ces principes d'intelligence informatique permettent également d'évaluer et qualifier les référentiels eux mêmes (adéquation à leur usage, degré d'utilisation), de les redéfinir (en proposant des règles dans les situations répétitives) ou de les critiquer (identification de propositions non suivies pouvant faire l'objet d'ajustement des recommandations existantes). L'application de tels principes informatiques est possible sur l'ensemble des systèmes informatiques construisant des bases de données et à tous les référentiels.

## WORKSHOP-B20

### Board game for teaching guideline methods

Marjukka Mäkelä, Minna Kaila, Eeva Ketola.

The Finnish programme for producing evidence-based guidelines Current Care (CC) celebrated its 10th anniversary in 2004.

To mark the occasion, the three successive chief editors of CC planned a board game for teaching guideline methodology and implementation. The game has been published and distributed to the guideline production teams, hospital districts, and other guideline actors for use.

**Objectives:** To experience a problem-based learning method that also is fun and builds team spirit. To discuss how guideline teams can be trained to produce high-quality guidelines.

**Contents:** In the session, we will play a demonstration game. Materials will be available in English. The game set includes a board, the AGREE instrument, the CC handbook, and a handbook for guideline implementation, all in Finnish. The board pictures an old tree and is divided into two parts: Guideline implementation and development. Development takes place among leaves and implementation among roots of a tree. In addition, there are action cards describing specific situations that may occur, eg. conflicts of interest, television interviews or problems with publication.

The aim of the game is to write a new evidence-based guideline or to implement a new guideline in practice. The game is suitable for training those who produce guidelines or implement them, but also entertaining for anyone interested in guidelines.

Players first select a topic on which to produce or implement a guideline. They also agree on the game area: They can proceed through the top of the tree (making a guideline), the shortcut in the top (guideline update) only, implementation (roots) or both the top and the roots in succession. The idea of the game is to discuss the phases described in the squares or the action cards. Discussing about these steps in guideline work happens best when everyone contributes their ideas and experiences.

## WORKSHOP-B21

### How to create effective patient involvement within guideline development

Sally Gomersall, Marcia Kelson.

**Objectives:**

- To explain, from a patient representative's perspective, how the National Institute for Clinical Excellence has involved lay patients, families and carers, in the development process of the guideline The Epilepsies: Diagnosis and Management in Adults and Children in Primary and Secondary Care
- To learn who the patient representatives were, how they were identified and how the patient representatives enthusiastically pursued this initiative throughout the epilepsies guidelines production process
- To learn how patient, family and carer involvement led to the production of an empowering guideline for individuals with epilepsy and their families and carers
- To hear about some of the specific patient centred issues that the patient representatives considered important: enabling patients, families and carers to participate as partners in all decisions about their healthcare; promoting individualised treatment strategies and comprehensive care plans that are agreed between the individuals with epilepsy, their family or carer as appropriate, and the primary and secondary care providers; highlighting the need for timely information in a format suitable for the individual with epilepsy, their family or carer, including ways to reduce risk of sudden unexpected death in epilepsy.
- Recognise the support patients and carers require to provide a valuable contribution to the guideline process
- Establish the diverse benefits of involving patients and carers, not only in the development process but also to secure ongoing patient organisation support for dissemination and implementation of the guideline

**Content:** This workshop will describe how the National Institute for Clinical Excellence's National Audit of Epilepsy Related Deaths led to the Government's action plan on epilepsy in England & Wales and subsequent development of a clinical guideline for the diagnosis, management and treatment of epilepsy.

Sally Gomersall, a patient member on the epilepsies guideline, will describe how the development group was convened and the patient members recruited; the expectations, experiences and diverse backgrounds of the patient members; the role of the chairman; how relationships developed between the patient members and with the medical professionals: how the patients and carers influenced the key clinical questions, terminology, language and the Information for the Public document.

Sally will explain the support she received from: other guideline group members; NICE; the National Society for Epilepsy; and other sources that enabled Sally to be an effective patient representative.

Marcia Kelson, (NICE) will be on hand to help facilitate group work and answer questions about NICE guideline development processes.

## WORKSHOP-B22

### Computer implementation of guidelines

Sharon Smart, Ian Purves.

**Objectives:** The production of guidance appropriately considers the production process and its quality but rarely has a target implementation method in mind.

**Contents:** The authors intend through demonstration and discussion to highlight the following issues:

- for guideline developers about representation of their narrative in form that enables implementation
- for implementers about successful knowledge management programmes and the role of computers within them.

## WORKSHOP-C23

### From guidelines to indicators

Catherine Grenier-Sennelier, Philippe Michel.

**Objectives:** Present and discuss several initiatives (France and UK), propose some key advices and recommendations to develop clinical indicators from CPGs and implement them.

**Contents:** This workshop will first, present the principles or experiences of different institutions on the topic:

- Principles of the Haute Autorité de Santé (French National Authority for Health) for developing clinical indicators.
- Some examples from the French COMPAQH (Coordination for Measuring Performance and Ameliorate Quality in Hospitals) project.
- The NICE experience.

Second, focus the discussion on:

1 - What are the different objectives of the measure of the clinical activity quality:

- Must indicators be different depending on the objective of the measure?  
(Quality improvement, financial incitation, reporting for users or stakeholders)
- How to avoid perverse effects?

2 - A stepwise approach for developing indicators, including different steps such as : choice of clinical condition, search for existing guidelines, assess guidelines quality, applicability of guidelines criteria (evidence level, literature updating, relevance, feasibility), building of the measure, implementation.

The clinical indicators development should involve medical and methodological expertise, ensure the existence of valuable data or its potential development and explicit the indicator specifications.

The participants will be invited to comment on this approach to indicators development / use and to share their experiences.

## WORKSHOP-C24

### Exchanging search strategies and filters for guidelines

Rikie Deurenberg, Sylvie Guillo, Anne-Gaëlle Guy.

**Objectives:** The aim of this workshop it to discuss possibilities and modalities of exchanging search strategies and filters between guideline organisations, which should improve the quality of literature searches and avoid duplication of efforts.

**Contents:** Methodology of developing filters will be presented for specific clinical questions. Existing search strategies for diagnosis and treatment on a few topics will be reviewed and compared as an example. An existing database with common filters will be demonstrated. We will discuss the following questions/issues:

- To what level of detail should the questions be formulated? How useful is the PICO method in the context of guideline development [P =patient, I = intervention, C = control, O = outcome]?
- What is a search filter, what types of filters are relevant and what should be the minimum and maximum number of terms for one filter?
- How should search filters be validated and evaluated?
- Are search strategies and filters exchangeable or context-specific?
- How to balance sensitivity and specificity in literature searching?
- How could information specialists collaborate internationally in order to increase the efficiency of their work?
- Would it be useful to develop an electronic centralised database to facilitate the exchange of filters between guideline developing organizations? Could this be integrated on the G-I-N website?

## WORKSHOP-C25

### AGREE next steps. Continuous quality improvement in the evaluation of clinical practice guidelines

Melissa Brouwers on behalf of the AGREE II team.

#### Objectives:

*Background:* The AGREE (Appraisal of Guidelines Research and Evaluation) instrument has significantly advanced the science of clinical practice guideline (CPG) appraisal and development. However, as with any new measurement tool, there is considerable room for growth and improvement. Validity, utility, and reliability are typical attributes by which we judge the properties of measurement tools. In the case of the AGREE instrument, further development to strengthen and establish these properties is necessary. AGREE II is a recently funded project aimed to facilitate the next iteration of the AGREE instrument by conducting research to improve these features. The specific research objectives are:

- To introduce a new scaling system for the instrument and to establish its reliability with the new scale.
- To test the instrument's capacity to discriminate across guidelines of known varying quality.
- To test the relationship between the instrument's quality domain scores and various global scores of quality.
- To evaluate users' perceptions of the value, helpfulness and relevance of AGREE instrument items on the decisions users' make.
- To evaluate; users' assessments of the usability of the AGREE tool and the feasibility of its application to the work they do.

*Purpose and Objectives of the GIN Session:* The objectives of this session are to:

- Present the rationale for the AGREE II project
- Review the objectives of the project
- Discuss and debate the methodologies proposed to meet the project objectives
- Explore opportunities for collaboration

**Contents:** The participants in this session can expect to receive a short paper copy version of the proposal and engage in lively discourse about the purpose, direction and methodologies we propose to take to meet our project objectives.

## WORKSHOP-C26

### Developing consumer information and assessing its reliability

Leonie Brunt, Catherine Marshall, Sylvia Sanger.

**Objectives:** The aim is to help participants:

- consider formats and language when developing consumer information.
- assess the reliability and effectiveness of health information for consumers
- find potential sources of reliable information

**Methods:** With the burgeoning of health information both on- and off-line, the question is often asked, 'How do I know what to trust?' This presentation aims to increase awareness of criteria that may be usefully applied to health information to determine whether it is reliable. Suggested criteria for assessing health information will be drawn from information taken from Producing Patient Information (Mark Duman), DISCERN, consumer testing and lessons learned from developing three evidence-based consumer resources. Potential sources of reliable information for consumers will also be suggested.

As well as suggesting criteria for assessing reliability, the session will discuss how messages can be conveyed effectively through consideration of formats and language.

**Conclusions:** There are useful criteria to apply to health information that can assist practitioners and consumers in determining its quality and reliability.

**Authors:** Leonie Brunt, Catherine Marshall, New Zealand Guidelines Group, Wellington, New Zealand, lbrunt@nzgg.org.nz and Sylvia Sanger, Agency for Quality in Medicine, Germany

**Contents:** This session will offer criteria for those looking for trusted consumer health information. It will also consider some of the issues associated with delivering evidence-based resources for consumers, highlighting three recently published evidence-based consumer resources. These resources were developed by the New Zealand Guidelines group for:

- people at risk of suicide
- people at increased risk of bowel cancer
- men checking for prostate cancer.

## WORKSHOP-C27

### Engaging the nurse and allied health professions in guideline development and implementation

Ian Bullock, Maggie Westby, Craig Lockwood, Alan Pearson.

**Objectives:** Our objectives for the workshop are to

- Promote multi disciplinary evidence based guideline development
- Develop multidisciplinary guideline groups that work through available evidence, in order to produce recommendations for practice, using globally accepted methodology, framed around AGREE principles
- Actively engage nurses and allied health care professionals in contributing to the global guideline community by training groups in evidence review and utilisation of Cochrane methodology
- Enable nurses and allied health professionals to engage in evidence translation and utilisation through stakeholder involvement, development and implementation activity

**Content:** The importance of evidence based guidance within a multi professional context of health care delivery is becoming increasingly important. How evidence is synthesised and formatted into pragmatic recommendations is a growing feature in both decisions relating to clinical governance and patient safety. To date this has been predominately led within many countries by the medical profession. Both the Royal College of Nursing and Joanna Briggs Institute have developed significant experience in guideline development and implementation activity, and offer principles of working to ensure that nursing and the allied health professions are fully engaged within this important field within the global evidence based community. Together we are keen to expand the involvement of these two major health care providers in actively engaging in guideline programs and where appropriate taking the lead responsibility for developing multi disciplinary guidelines that are developed to globally accepted standards

This workshop is a timely opportunity to realise GIN's desire to have more involvement from nursing and allied health professionals. Growing a strong multi professional base across the five continents would contribute to the achievement of the network's mission as a global facilitator in guideline development. Opportunities for collaborative bids for funding to source this development are strengthened through effective collaboration, ensuring that finance is not prohibitive to involvement, particularly in the developing countries.

## WORKSHOP-C28

### Addressing inequities in SRs, HTAs, CPGs and policy briefs

Andy Oxman.

**Objectives:** We will discuss a series of issues that should be considered in systematic reviews, health technology assessments, clinical practice guidelines and policy briefs. For each issue we will discuss possible guidance for those undertaking this work. For each issue we will begin by summarising the conclusions of a workshop that addressed these issues September 2005 in Oslo.

**Contents:** The following issues will be discussed:

1. What is inequity?
2. When and how should inequities be addressed in systematic reviews?
3. If there are plausible reasons for anticipating differential effects, what additional evidence should be included in a review?
4. How should evidence of inequities be analysed?
5. What should be addressed in the discussion section of a review?
6. What additional information is needed to apply the evidence from systematic reviews in a specific context?
7. How should inequities be addressed in recommendations?
8. How might group composition and processes help to ensure that inequities are addressed?
9. How should inequities be addressed in policy briefs?

## WORKSHOP-C29

### Evidence tables - sharing the burden

Sara Twaddle.

**Objectives:** GIN aims to 'facilitate information sharing, education and knowledge transfer, and collaborative working between guideline programmes to promote best practice and avoid duplication of effort'. If GIN is to achieve the aim of reduced duplication of effort then sharing of evidence tables is one of the simplest ways to achieve this.

**Contents:** This workshop will present the work so far of the Evidence Tables Working Group (ETWG). It will present the results of a number of different activities, including:

- work on defining an evidence table
- a literature search on evidence tables
- the survey of current evidence tables used by GIN members.

Based on the results of the survey, the ETWG will propose a minimum data set to be included in all evidence tables.

The workshop will inform participants about the work of the group and the current state of play in evidence tables, but most importantly will allow discussion about the way forward in this key area of GIN's work. It will be of most interest to those who develop guidelines and those who wish to adapt other's work.

## WORKSHOP-C30

### Confusing clinicians: avoidable and systematic distortions in the translation of the evidence-base into clinical practice

Tim Kendall, Steve Pilling, Craig Whittington, Rachel Burbeck.

**Objectives:** This workshop will deal with examples of the different ways in which the translation of evidence into everyday clinical practice regarding the efficacy and safety of drug treatments can be distorted – from assumptions and assertions about the clinical and statistical significance of trial outcomes through to the confusing and contradictory advice that may exist around the use of off-license medication.

Although there are numerous points at which the translation of evidence into guidance and clinical practice can be distorted, we have chosen just three such points that have become recurrent issues in the production of national clinical practice guidelines for NICE in England and Wales.

**Content:** The following three areas will be selected for particular attention.

1. Selected publishing by pharmaceutical companies – focusing on the Lancet paper of the year 2004, '*Selective serotonin reuptake inhibitors in childhood depression: systematic review of published versus unpublished data.*'
2. Statistical significance and clinical significance are not the same – focusing on the erroneous acceptance of statistically significant outcomes as being clinically significant (important) in pharmaceutical trials with the example of venlafaxine in the treatment of adult depression and SSRI's in the treatment of childhood depression.
3. A confusion of tongues: the growing variation in guidance regarding the off license use of medication and the case of flumazenil – focusing on the potential for inadequate or conflicting advice within the 'advisory-regulatory' (NICE-MHRA) medicines framework.

## WORKSHOP-C31

### Oncoline, an easy-to-use website for consultation of cancer clinical practice guidelines

Sonja Kersten, Joep Paulides, Joke van den Bogert.

**Objectives:** Oncoline was developed to provide health professionals in cancer care with an easy-to-use online database of up-to-date cancer clinical practice guidelines and care practice guidelines.

**Contents:** During an online demonstration of Oncoline ([www.oncoline.nl](http://www.oncoline.nl)), all benefits of the database will be presented. Health professionals working in cancer care are invited to consult the cancer practice guidelines and experience the working of the database for themselves.

The database is developed by the Dutch Association of Comprehensive Cancer Centres (ACCC). Presently, it contains both up-to-date clinical practice guidelines for the diagnosis and treatment of cancer, and practice guidelines for palliative care, nursing care and for dietary care. Oncoline is equipped with an easy-to-use navigation system and search engine. References in the guidelines in Oncoline are directly linked to the online articles or to the summary of the article in Medline. Cross-links allow professionals to switch between clinical practice guidelines and care practice guidelines. Also, guidelines are linked to available patient information material of the Dutch Cancer Society. All cancer guidelines can be printed, saved, or directly sent by e-mail. Moreover, (parts of) the guidelines may be downloaded for consultation through Personal Digital Assistants (PDAs).

Lastly, Oncoline facilitates the tumour working groups of the Dutch Comprehensive Cancer Centres in the online development of cancer guidelines.

**Results:** Oncoline provides access to 83 clinical practice guidelines and 23 care practice guidelines. From January until August 2005, the database has been consulted over 105,000 times (an average of 385 unique visitors per day).

**Conclusions:** Oncoline proves to be valuable in facilitating health professionals up-to-date cancer clinical practice guidelines and care practice guidelines. In addition, other health care organisations in the Netherlands have shown interest in a copy of the application.

## WORKSHOP-C32

### Emergency guidelines: how can we conciliate quality and rapid production of guidelines?

Jako Burgers, Fadila Farsi.

**Objectives:** Present and discuss how to develop evidence-based guidelines more efficiently and in shorter time period as usual.

**Contents:** To ensure high quality, guidelines should be based on the findings of systematic literature review and discussion among experts, considering the pros and cons of different options for management. The development process demands sufficient resources and is often time and labour consuming. This may conflict with the need for rapid answers on the added value of innovations in medicine and their potential integration in clinical practice.

In this workshop we will present the different steps of evidence based guideline development and will discuss how each step could be run more efficiently. We will also consider certain cutoffs in the process without losing quality.

This workshop is interesting for anyone who is interested in the trade off of rigor and efficiency in the world of increasing demands for "faster and better" products.

## WORKSHOP-C33

### AHRQ and their effective health programme

Jean Slutsky.

**Objectives:** This Workshop will explore not only the methodological issues surrounding effectiveness research but will cover the importance of user (stakeholder) involvement and making the resulting information understandable and useable for policy makers, clinicians, and patients.

**Contents:** Patients, providers, and policymakers share an interest in making informed decisions about health care to promote good outcomes. One of the greatest challenges is finding reliable and practical data that can inform these decisions. The Agency for Healthcare Research and Quality's Effective Health Care Program originates from Section 1013 of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003. Section 1013 authorizes AHRQ to conduct and support research with a focus on outcomes, comparative clinical effectiveness, and appropriateness of pharmaceuticals, devices, and health care services. Research will be informed by the needs of the Medicare, Medicaid, and State Children's Health Insurance Program (SCHIP). Research may include strategies for how these items and services are organized, managed, and delivered.

The AHRQ Effective Health Care Program has three approaches to research on the comparative effectiveness of different treatments and clinical practices:

- Review and synthesize knowledge. The Evidence-based Practice Centers systematically review published and unpublished scientific evidence.
- Promote and generate knowledge. The DEcIDE Research Network studies new scientific evidence and analytic tools in an accelerated and practical format.
- Compile the findings and translate knowledge. The Clinical Decisions and Communications Science Center compiles the research results into a variety of useful formats for stakeholders.





# ORALS

## 0-1.1

# Outcome measures for assessing practice change in health care professionals

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There are increasing numbers of randomised trials and systematic reviews researching the efficacy of interventions designed to change in clinical practice. The findings of this research are being used to guide strategies to increase the uptake of guidelines into clinical practice. Knowledge of the outcomes measured by these trials is vital not only for the interpretation and application of the work done to date, but also to inform future research.

**Objective:** To identify methods used to measure change in the clinical practices of health professionals following an intervention aimed at increasing the uptake of evidence (including clinical practice guidelines) into practice.

**Methods:** All published trials included in a Health Technology Assessment of interventions to change clinical practice (n = 215) formed the sample for this study. Using a standardized data extraction form, we extracted the following information from the methods and/or results sections of the retrieved papers:

- measure(s) of practice change used
- details of how the outcome measure was developed
- timing of outcome measurement

Outcome measures were then categorized into five distinct categories:

### A. Patient level

A1: Measures of actual change in health status of the patient e.g. pain, mortality, quality of life

A2: Surrogate measures of A1, e.g. patient compliance, length of stay, patient attitudes

### B. Health practitioner

B1: Measurements of actual change in practice e.g. compliance with guidelines, changes in prescribing rates

B2: Surrogate measures of B1, e.g. health practitioner knowledge and attitudes

### C. Organizational

Measurements of change in the health system e.g. waiting lists, change in policy

**Results:** Measures of a change of health practitioner behavior (B1) were the most common with 88.8% of studies using this as an outcome measure. Measures that assessed change at a patient level, either an actual measure of change (A1) or a surrogate measure of change (A2) were used 28.8% and 36.7% of studies (respectively). Health practitioners' knowledge and attitudes (B2) were assessed in 22.8% of the studies and changes at an organizational level (C) were assessed in 17.6%.

**Conclusion:** Most trials of interventions aimed at changing practice measure the effect of the intervention at the level of the practitioner, i.e. did the practitioner change what they do, or has their knowledge of and/or attitude to that practice changed? Less than half of the trials measured whether or not any change in practice resulted in a change in the ultimate end point of patient health status.

## 0-1.2

### Strategic exploration and development of implementation plans for integrated care; COPD guideline in between occupational health and specialist care

**M Valk, L van den Broek, T van Barneveld, F van Rooy, J Rooijackers.**

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**Objectives:** The aim of this project was to describe the opportunities and threats of implementation following the recently developed Netherlands guidelines on COPD, specifically the chapter COPD and WORK. The recommendations of the guideline focus on integrated care for working people with COPD. Pulmonologists and occupational physicians should collaborate and exploit mutual expertise regarding screening, diagnosis, prevention and treatment. The current pilot project will serve as a basis for subsequent national implementation.

**Methods:** In September 2004 two regions, one urban region (Utrecht) and one rural region (Apeldoorn Deventer, Zutphen), were selected for pilot implementation representative for other regions in the Netherlands. Semi-structured interviews, professional training sessions, audit and feedback and site visits were carried out. The pivotal stakeholders, i.e., pulmonologists, occupational physicians and occupational technicians were first subjected to semi-structured interviews to identify sources of suboptimal collaboration. Next, in both regions professional training sessions were organized to standardise and improve lung function testing and interpretation as conducted in occupational health settings. Subsequently, the operating lung function test procedures and interpretation were evaluated using audit and feedback which was the main implementation strategy. Finally, a one-day multidisciplinary course on occupational health and hygiene was held, including a visit to a construction site where workers are at risk for silica exposure.

**Results:** Thus far the interviews revealed that pulmonologists have difficulty in consulting and contacting professionals in occupational health. Also, thus far 50 lung function tests were screened. With regard to pulmonary disorder and risk management professionals in occupational health appear not to be responsive or sufficiently competent to provide adequate service.

Both pulmonologists and the professionals in occupational health themselves recognise these shortcomings. Only since 2004 can occupational physicians refer clients directly to specialists. Logistics and bureaucratic barriers still limit efficient health care.

These results have yielded insight and mutual recognition of the true potential of collaboration. Also, these results provide a solid basis for the remainder of the project, which will be reported on as soon as additional results become available.

**Conclusions:** Bottlenecks and shortcomings have been recognised and stressed by all participants thus paving the way for success and implementation. A sense of urgency and ownership of the problem was generated, which is expected to result in an action plan for development and adaptation of guidelines and nation-wide implementation.

## 0-1.3

### Provision of cost impact assessment tools to encourage implementation of clinical guidelines in England

**J Field, I Saunders, B Bennett, G Leng, A Sutcliffe.**

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**Objectives:** Lack of information about costs and access to funds are often seen as barriers for implementing NICE guidance, particularly for clinical guidelines that may have a broad scope. As part of its implementation strategy Nice has established a costing unit to estimate the cost impact of its clinical guidelines. The unit has developed a methodology for costing the guidelines with the aim of supporting implementation at a local level.

**Methods:** Guideline developers are consulted to identify key cost drivers, gather information, and develop a model that estimates the change in costs arising from implementation. A national cost impact assessment report and an interactive spreadsheet template that enables local cost impact to be estimated are produced for each guideline. Cost impact comprises both increases and reduction in costs as determined by the guideline recommendations. The report and template is then peer reviewed and subject to a limited consultation before being posted on NICE's website.

**Results:** Reports and templates are available for all clinical guidelines produced from January 2005. The first two guidelines costed in 2005 have been 'diagnosis and treatment of lung cancer' and 'the short term management of disturbed / violent behaviour in adult inpatient psychiatric settings and emergency departments'. The lack of detailed information about service provision at a national level was found to impact on the ability to prepare a complex costing model. To overcome this other means of estimating potential impact of guidelines had to be established.

**Conclusions:** To our knowledge this is the first time a cost impact and local cost template have been produced in the context of a national guidelines programme. Early feedback from users of the tool has been positive, however, it is unclear how widespread the use of this tool is. Further work on assessing the usability and utility of the products in encouraging implementation is required.

## 0-1.4

## Tailored interventions to overcome identified barriers to change: effects on professional practice and health care outcomes

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**Background:** Strategies to implement change in health professional performance have variable impact. For example, although strategies to disseminate and implement clinical practice guidelines can promote compliance with recommendations, effectiveness varies not only between different strategies but also when the same strategy is used on different occasions. Change may be more likely if strategies were specifically chosen to address identified barriers. Barriers can be related to the individual (knowledge, skills), to the social context of care provision, or to the organisation (resources, culture, structures).

**Objective:** To undertake a Cochrane systematic review to assess the effectiveness of delivering interventions tailored to address specific, prospectively identified barriers to change.

We considered the following comparisons:

1. An intervention tailored to address identified barriers to change compared to no intervention or an intervention(s) not tailored to barriers.
2. An intervention targeted at both individual and social or organisational barriers compared with interventions targeted at only individual barriers.

**Methods:** We searched the Cochrane Effective Practice and Organisation of Care Group specialised register and pending files until end of December 2002. English language articles only were included.

Randomised controlled trials were included that reported objectively measured professional practice or healthcare outcomes in which at least one group received an intervention designed to address prospectively identified barriers to change. Two reviewers independently extracted data and assessed quality. We also contacted study authors. Quantitative and qualitative analyses were undertaken.

**Results:** We included 15 studies. For Comparison 1, there was no consistency in the results and effect sizes varied both across and within studies. A meta-regression of a subset of included studies, using a Bayesian approach estimated a combined OR of 2.27 (95% Credible Interval: 0.92, 4.75). We were not able to undertake a statistical analysis for the second comparison because of lack of data. In view of the small number of studies, limited to a small number of organisational settings, it is not possible to determine whether interventions targeted to include organisational barriers are more effective than interventions that exclude targeting of organisational barriers.

**Conclusions:** Interventions tailored to prospectively identified barriers may improve care and patient outcomes. However, from the included studies, we could not determine whether barriers were valid, which were the most important barriers, whether all barriers were identified and if they had been addressed by the intervention. Based on evidence in this review, the effectiveness of tailored interventions remains uncertain and more rigorous trials are needed.

## 0-1.5

## Development of a computerized guideline implementability appraisal system

**S Codish, G Michel, A Hsiao, R N Shiffman.**

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**Objectives:** The Guidelines Implementability Appraisal (GLIA) instrument was developed to identify obstacles to guideline implementation and to provide feedback to guideline authors suggesting possible remedies. We describe the development of a web-based version of GLIA that facilitates: (1) distributed appraisal of guideline implementability by a geographically dispersed team; (2) analysis of appraisals; and (3) generation of a summary report.

**Methods:** The system automates the paper-based GLIA instrument. Use cases were created and refined that reflect workflow using the paper-based instrument. Scenarios for the fulfillment of each use case were identified. The system was developed as a Web-based application with server-side programming in PHP and client-side scripting in JavaScript. Data are stored in a central secure MySQL database. Testers familiar with paper-based GLIA assessed the usability and usefulness of the web-based tool and their suggestions for the computerized version were iteratively incorporated.

**Results:** Development of the system was based on 4 use cases: (1) entry of a guideline or draft for appraisal; (2) appraisal of guideline implementability by team members; (3) computerized analysis of the appraisers' data to prioritize items for discussion; and (4) facilitated generation of a concise report that can identify barriers to successful implementation and suggest ways to address them.

The computerized version of GLIA enabled efficient manipulation and presentation of the large data set created during an appraisal (the number of individual items for the appraisal of a test guideline was 1,475 items). The system presented customized views of this large data set, designed for the individual appraisers, the guideline administrator, and the guideline authors. Testers of the computerized system found it to be superior in usability to the paper-based instrument.

**Conclusion:** Distributed appraisal of guideline implementability is facilitated by a web-based system based on the GLIA instrument. Analysis of large data sets to prioritize controversial items for group discussion and the generation of a concise report to guideline authors are particularly useful features of the computerized system.

The system is freely available at: <http://gem.med.yale.edu/glia>.

## 0-1.6

### Validation of a social-cognitive model of physicians' intentions to use clinical practice guidelines in cancer care

**S Hanna, M Brouwers, D Cameron.**

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**Objectives:** We developed and validated a multivariate model of the social-cognitive processes related to physicians' endorsement and intentions to use the recommendations in evidence-based clinical practice guidelines (CPG's) for cancer care.

**Methods:** We conducted secondary analysis of two large, representative surveys of cancer care physicians in the Province of Ontario Canada, regarding their perceptions and use of CPG's produced for the Ontario cancer-care system. After record linkage, the total sample consisted of 726 physicians, who provided 1946 ratings of 46 CPG's. We used multilevel structural equation modelling to estimate and evaluate a model that considered physicians' beliefs, attitudes, and perceptions of organizational norms regarding CPG's. The multilevel model estimated physicians' general tendencies toward CPG's separately from their perceptions of specific CPG's.

**Results:** The model fit the data well (CFI = 0.95). The model predicted more of the variance in physicians' general tendencies to intend to use CPG's (78%) than their intentions to use specific CPG's (37%). Intentions to use CPG's were strongly predicted by attitudes toward the specific CPG's and CPG's in general, which in turn were predicted by a variety of beliefs about the quality, applicability, acceptability and comparative value of the guidelines. Perceived organizational norms predicted the intention to use specific CPG's, but CPG's in general.

**Conclusions:** A simple model involving the measurement of physicians' beliefs and attitudes is effective in predicting their subsequent intentions to use CPG recommendations. However, the findings highlight the importance of assessing physician characteristics and general tendencies regarding CPG's, rather than focusing exclusively on the features of specific CPG's. It also supports the usefulness of assessing physician's perceptions, rather than striving for "objective" measures of CPG quality. Research is currently underway to evaluate the model for predicting actual prescribing behaviour.

## 0-2.1

### Integrating formal methods in the development process of clinical guidelines and protocols

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**Objectives:** Support guidelines developers in the health-care profession in the construction and maintenance of high-quality evidence-based and up-to-date living guidelines and protocols.

**Methods:** A European Union funded project called Protocure II, has been set up to investigate how formal software engineering methods can be used during the development process of clinical guidelines to improve the guideline quality and reduce anomalies like inconsistencies, ambiguities and incomplete advice that is not explicitly described but relies on user interpretation.

The Dutch guideline on Breast Cancer treatment has been chosen as reference guideline to be used throughout the project.

The approach of the project:

Starting with natural (informal) language, the project applies a stepwise approach to a formal representation of the guideline content on which software verification techniques can be applied. To facilitate the communication between medical professionals/ guideline developers and computer scientists during this transformation process, an intermediate representation language and associated software tools have been developed. The final formal representation will be tested by software verification tools, to identify possible anomalies.

As a result of the Protocure II work to date, we have identified recurrent patterns that are present in medical guidelines, and are now investigating whether a standardised solution can be re-used. All tools and techniques developed during the Protocure II project are intended to be integrated in the process of guideline development. With this purpose, a new process-model of guideline development has been elaborated.

**Results:**

- A detailed model of the current guideline development process of CBO, including the living guideline concept, has been elaborated.
- A new process model visualising how Protocure II tools and techniques can be used in guideline development has been proposed.
- An intermediate representation language for guidelines and associated software tools has been developed.
- A set of software tools which supports the guideline development process with formal methods is under development.
- A library of guideline components, in the form of re-usable patterns has been created
- A demonstration guideline (breast cancer treatment), which has been formalised and verified using the above expected results

**Conclusions:** The use of software tools and techniques in guideline development is promising. Especially with the living guideline concept in mind. A close collaboration between computer scientists and medical professionals/ guideline developers is essential to achieve further progress in this field.

**Partners in the Protocure II project** (grant nr. IST-FP6-508794): Universitat Jaume I, Castellón, Spain. Fundació Biblioteca Josep Laporte, Barcelona, Spain. Radboud Universiteit Nijmegen, Nijmegen, The Netherlands. Vienna University of Technology, Vienna, Austria. University of Augsburg, Augsburg, Germany. Vrije Universiteit Amsterdam, Amsterdam, The Netherlands. Dutch Institute for Healthcare Improvement CBO, Utrecht, The Netherlands.

## 0-2.2

## Development of the clinical practice guidelines for asthma in the autonomous community of the Basque country by means of a mixed method of adaptation-development

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**Objectives:** The aim of this study is to evaluate the application of a mixed adaptation-development-updating methodology in the development process of a CPG on Asthma.

**Methods:** The steps taken were as follows:

1. Creation of a multidisciplinary development team.
2. Formulation of the key questions of the Guideline, using the Patient/Problem, Intervention, Outcome/Result and Study Type procedure.
3. Search of CPG, evaluation with AGREE Instrument and selection of reference CPGs and Cochrane reviews on asthma.
4. Analysis of the clinical contents of the selected guides, focusing on the key questions presented in Evidence Tables.
5. Application of guideline allocation criteria (7) to the key questions formulated. Selection of the strategy for each question: De Novo, Partial or Adaptation of recommendations. In the case of partial or "de novo" elaboration, a search, evaluation and evidence classification following SINGN methodology has been done.
6. Descriptive analysis of the application of the guideline allocation criteria to the questions and of the strategy followed in accordance with the section to which they belong. The differences were analysed by means of the chi-square test, using the SPSS programme version 12.0.

**Results:** Twenty-nine key questions were formulated. We applied the AGREE to 12 guidelines. From these, 7 were selected with standardised scores of over 60 in most of the domains. 52 of 227 Cochrane reviews relating to asthma were selected.

Of the 29 key questions, 25 are dealt with thoroughly in the guidelines, 3 are partially dealt with and only one was not included in any of the original guidelines. A Cochrane review was found for 11 of the 29 questions (37.9%). Consistency was high in 53.6% of the questions, partial in 21.4%, poor in 7.1% and was not applicable in the rest. Updating was considered to be necessary in 75% of the questions. The grading of the evidence was firm in 46.4% of the questions and consensual in 39.3%. The formulation of the recommendation was considered to be clear and applicable for 85.7% of the questions.

Many of the new recommendations reach a higher level than in the original guidelines. The questions in the education section maintain the initial level.

**Conclusions:** The development of this guideline by means of a mixed methodology of adaptation-de novo development-updating has entailed a great deal of work in the search for, evaluation and synthesis of information. Nevertheless, this has allowed us to identify the strengths and weaknesses of the guideline adaptation method as well as the steps that can be easily simplified for future adaptation work. A novel aspect of our adaptation method has been to approach this on the basis of structured clinical questions.

## 0-2.3

### Elaboration and sharing of generic search strategy modules in the development of oncology evidence-based clinical practice guidelines

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**Background:** The effective search for data is primordial for the development of evidence-based clinical practice guidelines. In the setting of the French Federation of Comprehensive Cancer Centres' guidelines programme (SOR) a series of generic search strategies have been elaborated to facilitate this aspect of guideline development. Clinical problems can be formulated using the PICO model (Population, Intervention, Control and Outcome) for facilitating the elaboration of a search strategy.

**Objectives:** To optimise literature searching in the guidelines development process by providing search strategy modules for MEDLINE, EMBASE, and the Cochrane Controlled Trials Database. The main aims are to provide a more systematic and homogenous literature searching step within the guidelines programme, and to avoid unnecessary duplication of effort between working groups.

**Methods:** Standardised search strategies were elaborated and tested for the different biomedical databases. These had a modular structure, based on the PICO model, which enabled the different modules to be combined to define a specific search strategy. As outcomes are rarely indexed as keywords in biomedical databases, this module was not taken into account. However, a module corresponding to the methodological aspects was elaborated.

**Results:** Modules defining 'population' (disease site + disease stage + patient's characteristics), 'intervention' (management step(s) + intervention(s) evaluated) and 'methodology' (study design relevant to the question + other methodological aspects) have been elaborated and tested. These modules are stored in a database which can be accessed when a literature search needs to be run. These tools are progressively created according to the literature search needs. When a module is improved or a new module is elaborated, the database is updated.

**Conclusion:** The development of evidence-based guidelines is an ideal setting for this modular approach to literature searching. The storage of the modules in a central database facilitates access by the guidelines working groups for elaborating specific search strategies, building on previous work. This approach avoids unnecessary duplication of effort and provides a useful tool for supporting the work of guidelines working groups and leads to more systematic, homogeneous search strategies for the guidelines produced within our guideline programme.

## 0-2.4

### Is the evidence cited in evidence-based guidelines constructive and sufficient for the development of adapted guidelines?

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**Background:** One task of GIN is to facilitate information sharing and knowledge transfer to promote best practice and avoid duplication of effort. Adaptation of guidelines is one way to reduce the workload of guideline development. However, the evidence used in several guidelines on the same topic might be quite different.

**Objective:** To compare the body of evidence cited in a recently updated Cochrane Review with the body of evidence cited in published guidelines.

**Methods:** We included guidelines for the use of epoetin in oncology patients published or updated between 2000 and 2005. Further inclusion criteria are a minimum of 50% score of the AGREE Instrument and an adequate method-chapter reporting evidence searching. We compared the cited randomized control trials (RCT) with the studies cited in the recently updated Cochrane Review "Erythropoietin in malignant disease". The body of evidence in the latter review includes 57 RCTs and was set as the gold standard. For comparison of used evidence source, we apply only that time period, which reported in the method-chapter of guideline. Based on this selection we compare the results of meta-analysis, which can be done on that basis and the recommendations given in the guidelines.

**Results:** Five of seven identified published guidelines fulfilled our inclusion criteria and were further evaluated. In comparison with the RCTs included in the Cochrane update the guidelines evaluated cited a maximum of 63% (14/21) RCTs published during the reported search period and a minimum of 39% (22/57) RCTs. Not all guidelines evaluated other guidelines or reviews systematically. Over all guidelines a period of systematic search between 1966-2005 was reported. 74% (42/57) of all RCTs included the Cochrane Review can be identified by merging the evidence of all published guidelines. The different outcomes of the meta-analyses based on the different evidence included will be presented.

**Conclusion:** The evidence pool can be easily raised up by merging collected evidence of different working groups in and outside GIN. There is a not yet explainable lack of available evidence in "high quality" guidelines. Different objectives and inclusion criteria of the compared guidelines might be one cause of our findings. The instruments of methodological appraisal may be helpful for selecting guidelines used in a shared evidence-pool. For making evidence based recommendations in adapted guidelines an independent quality assessment of content seems necessary before using these evidence-pool as data source.

## 0-2.5

### Complementary and alternative medicine (CAM) in evidence-based guidelines

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Complementary and alternative medicine (CAM), including over-the-counter products, dietary supplements and therapies such as acupuncture and massage, is widely used by New Zealanders: one recent study showed that 100% of people attending their general practice used some form of CAM in addition to the treatment prescribed by their GP. Use of CAM has implications for both effectiveness and safety of mainstream management of many health conditions, and therefore the policy of the New Zealand Guidelines Group is to address all therapeutic approaches, including those which may not be part of mainstream treatment, to the topic of each evidence-based guideline they develop.

This presentation will outline the rationale for inclusion of CAM in evidence-based guideline development, where to find and how to appraise appropriate evidence, and what information should be reported in the guidelines. Details of evidence-based sources of CAM information will be given, and examples shown of CAM reporting in NZGG evidence-based guidelines.

Unpublished data: The Mental Health and General Practice Investigation (MaGPIe). The MaGPIe Research Group, University of Otago at Wellington School of Medicine and Health Sciences

## 0-2.6

### Diversity in guideline development by the Dutch College of General Practitioners

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**Background:** The Dutch College of General Practitioners (DCGP) has published over 80 practice guidelines specific for the general practitioner. These guidelines are widely appreciated and accepted both by general practitioners and other professionals in the health care system. However, guidelines were criticized because of lack of attention for diversity aspects like gender specificity and ethnicity. Attention for diversity is relevant because the applicability of recommendations may be different for different groups.

Different influences like scientific research on guidelines urged us to focus on diversity in our guideline development program. After internal discussion it was agreed that diversity should get more attention in DCGP policy in general. Diversity in practice guidelines is just one aspect of this policy.

**Objective:** Diversity should have more attention in our guidelines. So we put effort in developing methods to incorporate diversity more systematically.

**Methods:** After discussion about diversity in DCGP policy, two working groups were formed to comment on two aspects of diversity, ethnicity and ageing. These groups wrote recommendations, most concrete, short term and easy to implement. Furthermore they will prepare a statement on diversity including aspects as attitude and education.

A selection of the staff was trained on gender specificity in guideline development.

**Results:** Only in the epidemiology paragraph we systematically pay attention to gender specificity, but hardly to ethnicity. So, there was room for improvement. The working group made a flow chart with points of attention in every step in the guideline development. Examples are:

- The advisory board gives advise at the start of the guideline development with diversity as a point of attention. In the commentary phase there is a check what is done with this advise.
- In the search strategy special filters for several aspects of diversity are used.
- In the commentary phase specialists on ethnicity and gender specificity are consulted.

A selection of the staff had a training on gender specificity in guideline development. They can consult a specialist on the topic of gender specificity. When evaluated positive, the training will be offered to all staff members.

**Conclusions and Implications:** Some aspects of diversity are well taken into account in the DCGP practice guideline program. Diversity will be anchored in the guideline development by a systematic approach with focus on diversity in every step of development.

### 0-3.1

## Facilitating as a tool for implementing guidelines for targeting recourses for high risk patients - The Helsinki Prevention Programme

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**Objectives:** It is well known that guidelines are a tool to improve quality of health care but the implementation remains as a corner stone. In Finland evidence based guidelines (Current care) like hypertension and dyslipidemia emphasise the evaluation of both total risk and fatal cardiovascular diseases. It is possible to change behaviour, but this change usually requires comprehensive approaches at different levels. We wanted to study the effect of facilitating in implementation in a prevention programme.

**Methods:** A two-year (2002-2003) prevention programme based on guideline implementation and facilitators was introduced to improve patient care and to share tasks properly in high volume lifestyle diseases in primary care in thirty-one municipal health stations in Helsinki city. Pairs of doctor-nurse facilitators were recruited. Programme was educational and used multiple methods for implementing evidence-based guidelines and other working methods. The change was measured by audits. Outcome measures were divided in to professional opinion change and surrogate end points for measuring process (blood pressure, serum lipid and HbA1C levels and the rate of measurements or patients).

**Results:** At baseline 17% of the blood pressure measurements were at poor control ( $\geq 160/95$  mmHg) at nurses' appointments. 31% of diabetics had an Hb-A1C above 7.5% and 71% of patients with dyslipidemia visiting a doctor were insufficiently treated according to accepted guidelines. In follow up when more high risk patients were found the corresponding figures were 22% of the blood pressure measurements, 34% for diabetic patients and 64% for dyslipidemia, respectively. In 2002 health visitor nurse used almost 12 per cent of the workday on blood pressure recording and counselling. After intervention, the corresponding figure was 6.3, respectively.

**Conclusions:** In this study it is shown that intrinsic facilitator system is a successful way to implement guidelines, especially in important, high-volume diseases involving primary health care. With help of an this system and a multifactorial educational intervention implementing guidelines it was possible to 1) target the preventive actions to high risk patients, 2) to share the duties more efficiently and 3) to change working practices according to guidelines and 4) to considerably decrease the workload of health centre's personnel.

### 0-3.2

## The Dutch Association of Comprehensive Cancer Centres (ACCC): network for the development, implementation and evaluation of oncology clinical practice guidelines in The Netherlands

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**Objective:** The Dutch Association of Comprehensive Cancer Centres (ACCC) provides a model for the development, implementation and evaluation of cancer clinical practice guidelines within a national and regional network in The Netherlands.

**Methods:** The ongoing development, implementation and evaluation of cancer clinical practice guidelines represent a cycle of "plan-do-check-act"-processes for the quality of cancer care. The good use of cancer guidelines demands for an integration of these processes within a network of healthcare professionals. In The Netherlands, the multidisciplinary network of oncology professionals is well organised by the Dutch Association of Comprehensive Cancer Centres (ACCC). This network includes the regional tumour working groups, which are organised around the nine Comprehensive Cancer Centres, and fifteen national tumour working groups, which consist of delegates of the 80 regional working groups who are mandated by their Scientific Societies. The working groups are supported by process coordinators of the Cancer Centres. The regional and scientific basis of the ACCC-network allows for the conceptualisation of national guideline implementation and guideline evaluation from the start of the guideline development process. In the "plan-do"-phase, guideline implementation runs parallel with guideline development. In the "check-act"-phase, guideline evaluation is carried out on both the national and regional level using data from the Netherlands Cancer Registry (NCR), which is hosted by the ACCC and receives input from the Regional Cancer Registries (RCR). The main evaluation takes place by way of regional documentation projects by the Cancer Centres and regional working groups. These methods provide information for the next round of the "plan-do-check-act"-cycle to improve the quality of cancer care.

**Results:** The ACCC-program provides a conceptual and practical model for effective cancer guidelines development, -implementation and -evaluation. By June 2005, 83 clinical practice guidelines and 23 care practice guidelines may be consulted through the Oncoline-database ([www.oncoline.nl](http://www.oncoline.nl)). The evaluation of cancer guidelines has taken place by information from the NCR and 75 regional documentation projects.

**Conclusions:** The number of guidelines developed and the number of guideline consultations through Oncoline establish the ACCC-program as a model for effective development, implementation and evaluation of cancer care practice guidelines. We also expect that the evaluation of guidelines through the NCR and the documentation projects provide an example in how guidelines should be evaluated, as evaluation remains a relatively unexplored territory of quality care.

### 0-3.3

## Protocol-based care development programme

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**Objective:** To create and deliver a cost-effective training and support package for Trust staff seeking to develop local clinical guidelines and care pathways.

**Setting:** United Bristol Healthcare NHS Trust is a large Acute Teaching Trust comprising of seven hospitals within central Bristol. With approximately 1100 beds and 7000 staff, implementing 'protocol-based care' is a keen challenge, especially with no relevant training locally available.

**Methods:** The programme is closely modelled on the 12-step framework for Protocol-Based Care, promoted jointly by NICE and the NHS Modernisation Agency in late 2002. We delivered a session on each step linked to a milestone in guideline development, dissemination and implementation, using the MA materials as a starting point. The sessions were spread over six months, mapped to avoid known bottlenecks such as school half terms and holidays. Each session was a mixture of presentation, whole and small group work. Some sessions included hands-on computer resources. Local examples were used wherever possible. Without a central guideline development department, the programme was delivered by a team of facilitators with expertise and experience in key specialist areas, drawn from across the Trust. We encouraged peer-to-peer support through a chat facility on a dedicated intranet website with further materials. Staff on the pilot intake had to take through a project as they went, learning about each step in the process before performing it for real. Where staff missed any particular session, we offered 1:1 catch-up sessions.

**Results:** The pilot intake consisted of 14 staff, and ran from January through July 2004. The majority were nurses. The group split evenly between those developing guidelines and those developing pathways. Their projects topics ranged from the very large (implementing NICE Antenatal Care Guidelines) to the small but significant (developing local guidelines on Status Epilepticus). Satisfaction with the programme has been exceptionally high.

**Conclusions:** The MA materials were only a starting point – a framework upon which we could hang a tailored package. We made each session of equal length (2 hours). In retrospect, we acknowledge we should have been more flexible. We are currently developing an e-learning package to complement the programme. The second and third intakes are now finishing their protocols, after programme delivery over 3 months, with adjusted contact time. As a by-product to this initiative, the Trust has tightened up its procedures for developing protocol-based care, introducing a number of custom GuidePoint templates to assist staff.

### 0-3.4

## Using and updating guidelines about PET-scan in the Aquitaine regional cancer network

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**Objectives:** Positron Emission Tomography (PET-scan) is a new very useful tool in oncology but not always of the same value, depending of the tumour site and the conditions. Few machines are installed in France and we have to optimize their use for giving more chances to patients to improve their quality of life and survival. In the French Standard, Options, and Recommendations national program (SOR) guidelines about use of PET-scan in oncology has been written by most of the nuclear physicians working in France helped by SOR methodologists. Aquitaine is a region in south west of France with 3 million inhabitants and only one PET-scan is functioning at the moment. We had to organize the access to this unique machine. Also, our objectives were 1) to implement the national guidelines in the Aquitaine regional cancer network permitting equal access of the cancer patients to this technique. 2) to make easier the update of French guidelines by deep implication of the practising nuclear physicians.

**Material and Methods:** We created in the Aquitaine Regional Cancer network (RCA) a working group of nuclear physicians and we defined their principal missions: 1) Management of access to PET-scan according to French SOR national guidelines; 2) Teaching literature searching and how to read a paper. We worked by creating sub-groups dedicated to different tumor sites. Every group must describe open questions not covered by national document; make priority for choice. The results were put into tables to summarize literature data.

**Results:** National SOR guidelines have been used for validation of the PET-scan requests. When it is a Standard indication request is directly accepted. If it is an Option we ask for a multi-disciplinary meeting before accepting to perform the PET-scan. Searching literature Pubmed equations have been posted on the regional cancer network website and using MyNCBI facility nuclear physicians can receive by e-mail the new references on their chosen subject. Like this, they can continuously update their references tables on each topic. An example for uterine cervix neoplasm will be shown.

**Conclusions:** Our next step will be to use these results for writing regional guidelines. After then, we will propose an evaluation of the PET-scan practice and utility. Developing, implementation and updating guidelines is a very hard task and the influence of practicing oncologists "in-the-field" has been emphasized.

## 0-3.5

### Guideline development in Romania by general practitioners; a means of empowerment

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**Introduction:** Since 1992 the Dutch Foundation for Improvement of the Quality of Romanian family medicine, funded by the Dutch Government, has realised a succession of post-academic training programs in order to improve the work of Romanian general practitioners (GPs). Romanian GPs proved to be eager to professionalise their work as GPs by introducing evidence based guidelines and in great need to improve their position in Romanian health care, which is dominated by medical specialists and authority based medicine. Many GPs work under unfavourable conditions: minimal equipment and support, lots of bureaucracy, low income and a lack of confidence in their professional skills both from patients and specialists. In 2002 a new training program started for the development of clinical guidelines. The aim of this project was to develop 5 clinical guidelines + 5 implementation plans. The Dutch College of General Practitioners (NHG) was invited to provide this training program because of their expertise. Differences in health care organisation and in tasks, powers and position of Romanian GPs in comparison to the Dutch situation made it clear that a simple translation of guidelines developed elsewhere would not be suitable for the Romanian GP.

**Methods:** We started by setting out the global time frame and the steps to be taken, both organisational and related to guideline topics. 7 main steps had to be worked out to reach the final goal:

1. Topic selection: longlist → 5 topics (according to selection criteria to set priorities)
2. Guideline group formation, division of tasks
3. Defining the topic and drawing up of basic plans (clinical questions → PICO-questions)
4. Literature search (orientation and systematic), selection, critical assessment → translation into recommendations
5. Writing of guidelines based on evidence and consensus; making decisions on presentation and additional products (e.g. patient leaflets)
6. Formulation of key-messages and abstracts
7. Implementation plans

This process took 3 years, with 35 Romanian GPs, a Romanian coordinator and 4 Dutch coaches. These coaches provided examples (of pitfalls) and tools for decision making at certain stages and acted as watchful and critical supporters of the process, principally based on learning by doing.

**Results:** Presentation of 5 GP-guidelines + patient leaflets at a GP-conference (Bucharest, May 2005)

**Future:** Evaluation of the use of the guidelines and patient leaflets is initiated.

It will be a challenge to find possibilities (financial resources/support) for updating these guidelines, developing new ones and enhancing implementation.

## 0-3.6

### Clinical Practice Guidelines (CPGs) in the Spanish national health system: "GuíaSalud (Health Guide) Project"

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**Objectives:** 1. To establish a partnership network amongst the 17 Autonomous Communities (CCAA) to promote CPGs in the Spanish National Health System. 2. To develop and implement a Spanish CPGs catalog. 3 to support and facilitate the access to these guidelines by making them available via the Internet.

**Methods:** Several strategies have been developed to achieve these aims: 1. Conducting a survey of the 17 CCAA's to know their starting point in terms of Guidelines elaboration, diffusion, and implementation. Setting up itinerant seminars throughout Spain. 2. Designing the CPGs catalog, including a collaborative and shared definition of inclusion and exclusion criteria. Searching for guidelines in any organization that potentially could have been involved in the developing process. Appraising the documents gathered and incorporation of those documents that followed the inclusion criteria to the catalog. 3. Designing a free access professional CPGs web page.

**Results:** 1. Development of the cooperation network including the management structure of the project with the participation of the 17 CCAA. 2 Establishment of a CPGs catalog. 328 documents have been assessed and only 20 (6,1%) complied with the inclusion criteria. These documents were developed by the CCAA (167-51%), Scientific Societies (151-56%), Health Technology Assessment Agencies (7-2%) and "others" (3-1%). 3. Launching a professional CPGs web page last April 5th ([www.guiasalud.es](http://www.guiasalud.es))

**Conclusions:** 1. GuíaSalud is the first initiative in Spain with the active participation of the whole health System (17 CCAA). 2. There is a great amount of CPGs in our country, but they lack quality mostly in terms of methodology. The producers of these documents are also very heterogeneous. The creation of the web page fosters the dissemination of the CPGs and supports all the processes related to the production and implementation of a guideline. It also offers quality resources and formats for ongoing communication, being the first step to keep working in the development of a national GPCs program.

## 0-4.1

# Usefulness of patient-oriented evidence-based clinical decision support tools at the point of care

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**Objectives:** What evidence of value and usefulness characteristics exist for decision support tools that can be used by women and women's health providers at the point of care to effectively incorporate best evidence and patient values and preferences?

**Methods:** 1) A systematic review of randomized controlled trials of clinical decision support tools used at the point of care for a women's health decision. 2) A search of the literature and the Internet to identify examples of types of decision support tools that can be used at the point of care.

Search sources: Cochrane Database of Reviews, MEDLINE (1996 to Nov 2005), hand-searching references, hand-searching tables of contents of target publications, Internet search for electronic decision support tools.

Decision support tools are interventions designed to help people make specific and deliberative choices among options by providing evidence-based information about the options and outcomes relevant to a person's health status. The tool may include: information; balance of benefits and risks; costs; probabilities of outcomes customized to personal health risk factors; an explicit values clarification exercise; information on others' opinions and decisions; and coaching in the steps of decision making and communicating. Numerous presentation formats are evaluated and presented.

To assess impact and outcomes of decision support tools a broad range of positive or negative effects on the process of decision making and the outcomes of decisions are measured: ability to meet the needs of the patient/population; willingness of provider to use the decision tool; knowledge and understanding of the probable outcomes of options; communication; clarity of personal values and preferences; experience and feelings of support, inclusion, participation, motivation, realistic expectations, emotional distress, decisional conflict; efficiency, time and resource utilization; effectiveness, agreement between personal values for outcomes and choice; satisfaction with the decision; adherence to the chosen option.

Women's health decisions include: menopause management, osteoporosis management, prenatal screening, VBAC, treatment of abnormal uterine bleeding, and choice of contraceptive.

**Results:** An inventory of available decision support tools for use at the point of care by women and women's health providers to effectively incorporate best evidence and patient values and preferences to aid with healthcare decisions that involve patient preference will be presented. A systematic review of the evidence of value and usefulness characteristics that exist for these decision support tools will be presented. Inclusion of these tools in provider and consumer evidence-based guidelines will be discussed.

**Conclusions:** Optimal strategies for implementation will be explored.

## 0-4.2

# EBM and patients perspective or why and how to involve patients in guideline-development

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**Objectives:** Shared decision making describes a way of involving patients into the planning and management of their individual healing process. Doing this effectively seems to be quite a challenge for both - physician and patient. The mutual transfer of information appears to be one of the main steps of this process. Medical patient-information or patients-guidelines can help to explain complex medical processes in a non-specialist way and thus improve communication and self-management. In order to develop an "evidence-based asthma patients-guideline" we tried to focus on both: evidence-based recommendations and patients perspectives. Patients were asked about their individual needs and knowledge. And they took part in the subsequent review.

**Methods:** In order to explore patients' perspectives and needs we implemented 3 additional steps to our existing concept of guideline-development:

1. A questionnaire for asthma-patients with 10 items dealing with patients knowledge about asthma and a personal grading of 25 "asthma-questions".
2. Working out what most patients want to know and do not know about asthma and asthma-therapy.
3. Patients joined the actual review-panel of the guideline.

**Results:** Evaluating the results of the questionnaire we discovered a gap between what patients consider to be interesting/important and medical and health-political necessity: Although the patients were very interested in an autonomous approach of living with asthma (Important items: "what can I do by myself" 68%, "how can I prevent an asthma-attack" 86%, "how can I live better with asthma" 77%) they were less interested in topics that would give them more autonomy ("structured education-programmes" 41%, "how to use inhaler-devices" 64% or "peak-flow-measurement" 36%). Patients taking part in the review panel emphasized the need for more or better information concerning: pollution (i.e. ozone), complementary/alternative methods and the administration of cortisone during the asthma-attack - topics that were not mentioned in the physicians' guideline.

**Conclusions:** To acquire an "implementable" evidence-based patients-guideline it is not sufficient to "translate" existing asthma-guidelines into non-professional language. We should focus on the needs of individual asthma-patients and their everyday problems living with asthma. Therefore patients should be asked what they want to know and what they do not know. And they should review the results and include their points of view into the guideline. We applied this concept for the above mentioned evidence-based patients-guideline and received:

1. A thematically ranking focused on patients daily needs and
  2. A to-do-list of topics that need increased attention (like Peak-flow-measurement and structured education programmes)
- The patients' perspective changed our perspective on our patients-guideline more than expected.

### 0-4.3

## The development of consumer versions of national multi disciplinary evidence based guidelines in order to promote evidence based patient choice

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**Objectives:** The aim of this project was to develop consumer versions of the multidisciplinary evidence based guidelines 'Anxiety Disorders' and 'Depression', published in 2004 and 2005 in the Netherlands. The key functions of consumer versions of guidelines are: providing objective information about diagnosis and treatment (effects, risks, alternatives), supporting decision making processes, empowering consumers, enhancement of communication with the professional and stimulating the acceptance and effectiveness of interventions. We also believe that the development of consumer versions of guidelines may improve the complex implementation process among professionals.

**Methods:** The developmental process was a bottom up approach in which we closely followed the rules of guideline development. First, we formed a working group, mainly consisting of representatives of consumer organisations and some professionals. Second, we decided on the issues that should be addressed in the consumer versions. Third, we gathered the information needs and preferences of consumers, carers and professionals. We organised focus groups (consumers, carers and professionals), searched the literature and the internet and checked the professional guidelines. Fourth, we formulated and discussed the chapters. The drafts were discussed in the working group and a feedback panel. Finally, comment was given by a large public. The project took 12 months.

**Results:** This project resulted in two consumer versions of the multidisciplinary evidence based guidelines 'Depression' and 'Anxiety Disorders'. Each booklet contains about 40 pages. Digital versions of the booklets are also available on the internet.

**Conclusions:** This was an unique developmental and learning process. It took several versions of the booklets, before we managed to get the necessary information in a way and form that responded to consumers and carers' information needs. We faced the problem of restricting the broad need for information to readable and essential proportions. Still, the final product is much more than merely a flyer or a translation of the professional guideline. We consider it to be a guideline for patients that informs about the disorders depression and anxiety, the effective interventions known by professionals and the major advantages and disadvantages of different treatment options. We believe the booklets can support Dutch patients and professionals in their discussions about the best treatment plan and to enhance the position of the patient in the decision making process.

### 0-4.4

## Do guidelines include relevant information to support communications among patients, care givers and physicians? : a content analysis of clinical practice guidelines developed in Japan

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**Objectives:** In Japan, the official movement to develop evidence-based clinical practice guidelines began in 1999 with the financial support of the Ministry of Health and Welfare (presently, the Ministry of Health, Labour and Welfare). Since then, practice guidelines in various fields have been developed or are now under development and developmental methods using the principles of evidence-based medicine are becoming popular. Although practice guidelines are expected to assist decision making by physicians, patients and care givers as well as to facilitate communications among them, the contents of practice guidelines have not been fully examined concerning whether or not they include relevant information for these purposes. The present study aimed to analyze the contents of practice guidelines in terms of including relevant information to support communications among patients, care givers and physicians.

**Methods:** Both electronic and manual search were conducted to retrieve existing practice guidelines developed in Japan. Reports, academic literature and books were searched. Out of the retrieved guidelines, 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 practice guidelines that were identified accordingly were analyzed for their contents in terms of patients' preferences, informed consent, patients' quality of life (QOL).

**Results:** Three hundred and sixty nine clinical practice guidelines that were developed and available in Japan were found (February 2005). Among these guidelines, 23 guidelines, such as pain control for cancer patients (2000), asthma (2001), acute myocardial infarction (2001), met the criteria for the present analysis. Out of them, only guidelines for pain control for cancer patients explicitly included description considering patient preferences. Concerning informed consent, only three guidelines for breast cancer, cerebral infarction and cataract included relevant information. Eleven guidelines did not include any description about patients' QOL. On the other hand, only guidelines for asthma dedicated a chapter specific to this subject.

**Conclusions:** This study revealed that there are few Japanese guidelines that include relevant information to support communications among patients, care givers and physicians. In setting clinical questions to be addressed in the guidelines, concerns and questions in terms of patients and care givers should be considered appropriately.

## 0-4.5

# Evidence-based patient guidelines - more than the simple translation of the expert language of evidence-based clinical guidelines into a consumer language

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**Objectives:** In 2003 AQuMed has started to develop evidence-based guidelines for numerous diseases - the so-called National Disease Management Guidelines - in a cooperative endeavour with its funding agencies and partners as well as multidisciplinary expert groups. Since April 2005 patients have also been involved in this process. Their task is to (1) comment on clinical guidelines during the development process and (2) to develop patient guidelines on the basis of these evidence-based guidelines, and thus contribute to the practical implementation of guidelines. Against the background of the special views and requirements of the patients concerned and the national disease management guideline existing for a particular disease, a methodology for the development of patient guidelines is to be designed and tested.

**Methods:** Each patient version of a disease management guideline is to be developed by six patient representatives, three of whom must themselves be affected by the particular disease addressed in the guideline. The process for developing the patient version of a national disease management guideline includes the following steps: (1) selecting the topic, (2) recruiting appropriate patient representatives, (3) determining the content of the patient guideline on the basis of specifications outlined in the guideline and by considering topics of particular interest to the patients affected, which are not part of the clinical guideline (so-called "key questions"), (4) adjusting the content of the patient version to both the underlying national disease management guideline and to already existing patient information, (5) formulating a first draft, (6) obtaining comments from patient representatives and experts, (7) reaching a consensus, (8) producing the final version, (9) pilot testing, (10) publication, and (11) update management.

**Results:** First results will be available as soon as December. There are already indications that as far as content and scientific facts are concerned there will be redundancies between the patient version and its underlying clinical guideline, but for the rest, design and structure can be totally different from a clinical guideline.

**Conclusions:** A guideline for patients which has been developed on the basis of a clinical guideline must be rather more than just a "translation" of expert into consumer-friendly language. In future, experience and knowledge gained from the development of patient versions of clinical guidelines may contribute to both reassessing the structure and content of clinical guidelines and - apart from attaining scientific rigour and 'evidence-basedness' - also to enhancing "consumer orientation". The answer to the question whether this will have any positive impact on the implementation of clinical guidelines or not must be left to future investigations.

## 0-4.6

## The systematic development of "Patient-Guidelines" an approach to support shared decision making with evidence-based health-information for patients

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**Objectives:** To take more responsibility for the planning and management of their individual healing process patients demand objective and comprehensible information. Most patient-informations are neither objective nor easy to understand, thus not an appropriate basis for shared decision making. Evidence based medicine provides a systematic approach to appraise the scientific basis of medical procedures and transforms these findings into practice guidelines for professionals. Although the number of guidelines is increasing constantly, patients often do not benefit from them. The "Medical knowledge network evidence.de" of the Medical Faculty at Witten/Herdecke University developed a systematic approach to adapt professional guidelines and transform them into "patient-guidelines".

**Methods:** The systematic development process includes the following steps:

1. Selection of a condition/ disease. Criteria: High incidence and importance. Known quality deficits.
2. Research of existing medical guidelines, Cochrane reviews and literature for this disease.
3. Critical appraisal of researched sources. Criteria corresponding to guideline-clearing process of the Agency for Quality in Medicine (AEZQ).
4. Design of table of content in a fixed scheme. Criteria: Patients questions and views, Discern-criteria and known areas of inappropriate care.
5. Selection of guideline author. Criteria: Medical profession, practical experience with selected disease and journalistic expertise.
6. Submission of Table of content and researched sources to the author. Discussion of main topics, key messages and areas of uncertainty.
7. First discussion of draft of patient-guideline.
8. Peer review with experts and patients.
9. Publication of reviewed patient-guideline at [www.Patientenleitlinien.de](http://www.Patientenleitlinien.de) and as printed folders. Dissemination via medical practices of the Medical Faculty.
10. Evaluation of single patient-guidelines in clinical trials.
11. Consumers' feedback via email.

**Results:** Thirteen patient-guidelines were developed and published since the year 2000. The described process was implemented continuously so the quality of the documents improved with every new condition/ publication. Consumers and physicians feedback is encouraging. The website is top-ranked and visited about 40.000 times per month.

**Conclusions:** Although the patient-guidelines are well accepted by the target group and a systematic and routine guideline development process has been established the resources for writing and updating patient-guidelines can hardly be overestimated. Further research is necessary to evaluate the effect of patient-guidelines on the motivation and ability of patients to take responsibility for their individual healing process.





# POSTERS

## P-01

## Can we produce clinical practice guidelines and health technology assessment in the same agency without confusing our users?

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**Objectives:** To analyse the consequences for the development of clinical practice guidelines (CPG) and health technology assessment (HTA) in view of the new organisational setup with CPG-development in the product-portfolio of the Danish Center for Evaluation and HTA (DACEHTA).

**Methods:** In Denmark, there has been a focus on integrating the "supply chains" behind decision making tools based on systematic search and review of evidence. CPGs are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. HTA is systematic research-based policy analysis providing input to decision making, mainly at the level of planning and overall management. Early on in the promotion of CPG in Denmark emphasis was put on a broad evidence basis for CPG stressing also non-clinical aspects such as organisation, staffing, and economics when appropriate. The Danish Secretariat for Clinical Guidelines (DSCG) was established in 2000 under the auspices of the Danish Medical Society (an umbrella organisation for all specialty societies) based on a contract with the DACEHTA. In January 2004, DSCG became part of DACEHTA in the National Board of Health.

**Results:** The integration of the development of CPGs into DACEHTA has put focus on a number of methodological and communicative challenges, e.g.:

- To set up a coordinated system for collecting and prioritising subjects, and as part of this to define a consistent mechanism for choosing which subjects should be addressed with HTA and which in the form of CPG.
- By the Danish definition both HTA and CPG should address the four elements: The technology (e.g. an intervention), the patient, the organisation and the economy. However, taking the end user in mind, how much emphasis should be put on the non-clinical aspects when the channel is CPG?
- HTA is policy analysis, and CPG is advice. Which consequences do this important difference in objective have for the handling of evidence from reviews into the final document?
- Could a situation where the same group of experts at the same time developed an HTA and a CPG be possible?

**Conclusions:** As the development of clinical guidelines is now an integrated part of DACEHTA in the National Board of Health the development and publication of CPGs must be reassessed in this new context. International input to such reassessment is invited.

## P-02

## Revision of the Standards, Options and Recommendation guideline development methods

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**Objectives:** The "Standards, Options and Recommendation" (SOR) project started in 1993 and lead to more than 60 clinical practice guidelines (CPG) being published. To optimise and facilitate the guideline development process, we decided to revise our methodology.

**Methods:** An overview of international and national guideline development methods was performed. The stages, the roles of actors (clinicians, systematic reviewers, stakeholders) and the development time of each steps and tasks were revised and formalized using MS project software.

**Results:** Six stages were formalized: (1) Topic selection (2) Scope (3) Consultation of stakeholders (4) Development (Systematic review and guidelines recommendations) (5) Publication and (6) Dissemination

The most significant modification regarding these stages concerned the scope which was extended and has become the cornerstone of the process. Regarding actors, the tasks of clinicians and systematic reviewers in working group were precisely defined.

In order to assist the project leader, our committee developed a set of tools such as (1) principles and templates to writing guideline (2) and a work plan template.

**Conclusions:** In conclusion, the revised method for the development of evidence-based practice guidelines leads to a more manageable project: clinician satisfaction and quality of the systematic review were increased, the final recommendations were more specific and clinically pertinent, the whole process was less time consuming and milestones helped to clarify the method.

Nonetheless, the process of decision making and of reaching consensus needs to be further improved.

## P-03

## Development of evidence-based patient information for rectal cancer: the French national SOR SAVOIR PATIENT programme

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**Objectives:** The aim of this project was to involve patients in developing rectal cancer information to meet their request for better information about disease and disease management, and facilitate the communication of that information during the physician-patient encounter.

**Methods:** Medical information conveyed by patient guides developed in this program is based on clinical practice guidelines produced by the FNCLCC and the 20 French regional cancer centres, with active participation of specialists (public and private), learned societies and institutions, collaborating in multidisciplinary working groups. The guidelines ("Standards, Options & Recommendations") are used as primary information sources. The development process involves 3 steps: 1/ the relevant specialist guideline is "translated" into simple language by methodologists, a linguist, a health anthropologist and oncology experts; 2/ *the knowledge database* produced is adapted to the needs expressed by patients and families using qualitative methods (focus groups, individual interviews and questionnaires) 3/ the final document is reviewed nationally by experts and patients. A professional working group validated the scientific and medical content of the document throughout its development.

**Results:** 12 patients, experienced patients and caregivers participated in the elaboration of the SOR SAVOIR PATIENT guide on rectal cancer. Focus groups identified information needs and explored the different aspects (content, language level, form, etc.). All participants appreciated the methods and the possibility to be involved in the development of this guide. According to the phase of cancer care, disease status and coping styles, expressed information needs varied among individuals and centered around different topics: screening, risk factors, treatment choices (surgery, radiotherapy, chemotherapy), follow-up and practical and educational informations (about colostomy for instance). All patients expressed great needs of informations about rectal cancer, treatment options and side effects to help them in the clinical decision-making process.

**Conclusions:** Involvement of patients in the development of evidence-based patient information is a standard to produce easily understood patient information and satisfy specific information needs. Written information represents a supplement to verbal information in the clinical setting. The SOR SAVOIR PATIENT guide on rectal cancer can also be used during patient education programs at the local level. The impact of the guide on patients' outcomes and physician-patient relationships will have to be assessed. More research is needed to clarify the cultural context and ways to overcome existing barriers.

## P-04

## Decision support and guideline development in the Netherlands

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**Objectives:** Decision aids are interventions designed to help people make specific and deliberative choices among options by providing (at the minimum) information on the options and outcomes relevant to a person's health status. This should result in well-considered decisions, meeting the patient's expectations and personal values. The aim of our project is to develop a series of decision aids, in close relation to guidelines.

**Methods:** We identified preference sensitive decisions from 5 pilot guidelines. For each subject, a working group of professionals, patients and an expert in decision making was formed. They develop information based upon available decision aids, health education materials and the guideline itself. The decision aids are tested by a user panel during their development. In order to have insight in the patient's expectations and personal values, patient focus groups are organized. The information is administered using the national healthcare internet portal. Next year, 15-20 decision aids will be developed parallel to the guideline development.

**Results:** A format for the decision aids is developed, and the content of 5 decision aids is tested by user panels. In addition, the methodology for the development of decision aids parallel to guideline development is established. The first series of decision aids will be published in February 2006 on the national healthcare portal. The challenge is how to ensure that the decision aids contain up-to-date clinical information and provides patients with the most recent, evidence based knowledge about their disease. In our model, we build structures in which patient organizations and healthcare professionals take long-term responsibility for the content. The government offers technical continuity.

**Conclusions:** Many healthcare decisions are difficult because the outcomes are uncertain or the benefits need to be weighed against the risks. Over the last decade, various information tools have been built to provide patients with appropriate information about their disease, treatment options, risks and consequences. One of these tools is the decision aid, which distinguishes itself from usual health education materials by providing more detailed, specific and personalised information to patients so that patients gain insight in their personal health status, treatment options, potential (dis-)advantages and expectations. Decision aids put a lot of focus on the patient ignoring the fact that healthcare professionals are key players in the treatment process and play an important role in making informed decisions. By combining the development of guidelines and decision aids, we hope to improve the communication between patients and professionals.

## P-05

## Cooperation in guideline development by the Dutch College of General Practitioners

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**Background:** The Dutch College of General Practitioners (DCGP) has published over 80 practice guidelines specific for GPs. These guidelines are widely appreciated and accepted both by GPs and other professionals in the health care system. Since in the Netherlands the GP acts as a gatekeeper it is of importance that other professionals in primary and secondary care do support these guidelines and are sufficiently involved in the guideline development program.

**Objective:** To involve other health care professionals than GPs in the DCGP mono disciplinary guideline development program and to develop cooperation agreements with them because of the GPs central role in the health care system.

**Methods:** The DCGP is taking the lead and participates in several ways of cooperation with other organisations for the development of our mono disciplinary guidelines and for developing multidisciplinary guidelines. For our mono disciplinary practice guidelines we involve other professionals in several ways. In the commentary phase the guideline is sent to medical specialists concerned. Especially in the case of subjects requiring disease management (e.g. diabetes) medical specialists participate in the working group. We also participate in guideline development for secondary care. These procedures make sure that there is agreement on matters as referral policy. One section of the DCGP department of guideline development is specialised in producing practice guidelines for both GPs and one other discipline. These so called cooperation agreements offer a frame for local discussion about tasks and responsibilities. Examples are primary care agreements with visiting nurses on decubitus and dementia. A cooperation agreement for secondary care is based on a GP's and specialist's own practice guideline. It forms a document with agreement on several aspects of cooperation, such as mutual expectations and refer back habits. Examples are agreements on sub fertility with gynaecologists and on TIA with neurologists. Apart from these multidisciplinary practice guidelines the DCGP encounters in participation in guideline development led by other organisations, E.g. the Dutch Institute for Healthcare Improvement (CBO).

**Results:** The different ways of cooperation have led to broad acceptance of our mono disciplinary practice guideline program. Until 2005 we made 14 cooperation agreements.

**Conclusions and Implications:** The development of mono disciplinary practice guidelines for the GP is one of the DCGP's most important tasks. Cooperation with other organisations is another important task completing our program and helping implementation.

## P-06

## Nordic development of physiotherapy guidelines: a strategy for a co-operative process

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**Objectives:** The physiotherapy associations in five Nordic countries have decided to collaborate in developing clinical guidelines as an attempt to bridge the gap between research and practice. In order to rationalize the guideline development process we plan to share our evidence finding processes and the experiences of preparing and implementing national guidelines. The overall aim would be to prepare a common method for developing national guidelines and to divide the themes for guidelines between the countries.

**Methods:** Each country will describe their level of guideline development and the methods of literature searching, study quality assessment, analysis of the results, grading the evidence, implementation strategy, and the updating processes of the guidelines. A strategy as outlined in the European Region of the World Confederation for Physical Therapy (ER-WCPT) in 2004 will form the common frame of reference to discuss each country's method for preparing clinical guidelines.

**Results:** Currently, two guidelines and one translation from Dutch guideline have been prepared in Denmark, and eight consensus-based clinical guidelines in Norway. In Finland, Sweden and Island the physiotherapy associations have taken the main responsibility of organizing the guideline development, although the approaches are somewhat different between the countries. **Conclusions:** A date and a program for the first Nordic Symposium has been set.

P-07

## National guidelines and priority setting based on effectiveness and cost-effectiveness

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**Assignment:** The Swedish government has commissioned the National Board of Health and Welfare (NBHW) to provide evidence-based guidelines for the care and treatment of patients with serious chronic illnesses. The guidelines shall include recommendations to guide decisions on priority setting. NBHW shall report to the government how the guidelines affect clinical practice.

**Objective:** The guidelines shall provide national support to assist healthcare providers in establishing healthcare programs and setting priorities. The goal is to contribute to the effective use of healthcare resources, allocated based on need and governed by open and transparent decisions on priorities. The primary target groups are decision-makers (policy makers, managers and administrators) and health care professionals.

**Method:** Medical and health economic fact documents are being produced to support the recommendations on setting priorities. The resulting ranking list, ranked on a scale from 1 through 10, is based on a multidisciplinary collective analysis that takes into account the ethical principles of the Parliamentary decision on priority setting. The guidelines for cardiac care, published in 2004, present a list encompassing a total of 118 medical conditions and treatments. The implementation of the guidelines is to be evaluated through database studies of clinical practice.

**Results:** Apart from the guidelines for cardiac care, other disease areas that have been considered in national guidelines include asthma and COPD, stroke and cancer. Guidelines for cardiac care and asthma and COPD have been published. Guidelines for stroke and cancer (breast cancer, colorectal cancer and prostate cancer) are under way as are guidelines for depression/anxiety disorders and dementia. A revision of the guidelines for cardiac care has been initiated.

**Conclusion:** The process for providing national guidelines including a ranking list has been successful in the sense that the guidelines provide a tool for setting priorities in the provision of health care. The work with national guidelines has been well received by the medical profession and policy makers. Further formal studies are pending.

P-08

## Survey of clinical practice in rehabilitation of children with CP in Finland through video case presentations

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**Objective:** The objective of this study was to gather data on the current clinical practice in rehabilitation of children with cerebral palsy (CP) in Finland and identify possible variations.

**Method:** Structured interviews were sent to the rehabilitation teams of all 5 university Hospitals and 15 central hospitals. The teams were asked to make rehabilitation plans for 3 children with varying severity of diplegia presented on video and in a short written summary.

**Results:** For the patient A (GMFCS II, no additional problems) the total amount of therapy sessions ranged from 60 to 140, BTX-A treatment was recommended by 19 of the 20 teams, electrical stimulation by 9 and surgical intervention by 3. For patient B (GMFCS III, additional visuomotor disorder indicating specific learning disorder) the total amount of therapy sessions ranged from 105 to 200, BTX-A treatment was recommended by 17 out of 20 rehabilitation teams, electrical stimulation by 5 and surgical intervention by 6 teams. For patient C (GMFCS IV, additional problems in visuomotor, perception and oral motor control) the amount of therapy sessions ranged from 100 to 225; BTX-A treatment was recommended by 18 out of 20 rehabilitation teams, electrical stimulation by 5 and surgical intervention by 2 teams.

**Conclusions:** Video cases can be used to evaluate the current practice within a country. The observed differences in current practice in Finland have been discussed with the participating rehabilitation teams and other professionals involved in paediatric rehabilitation. A need for evidence based national approach that aims for optimal rehabilitation has been recognized.

P-09

## Clinical guideline development in England, Wales and Portugal: evidence based guidance in context

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**Background:** The delivery of high quality patient care and the regulation of clinical practice are key priorities for the United Kingdom and Portugal. Evidence based guidance such as clinical guidelines can assist clinicians and patients in clinical decision making, and, they can also be used as tools for resource allocation in health care. The role of clinical guidelines within health care practice in the United Kingdom has steadily increased, with the production of national guidelines from the National Institute of Health and Clinical Excellence for England and Wales and the Scottish Intercollegiate Guidelines Network for Scotland. In Portugal, however, guideline development is less well developed.

**Objectives:** 1) to identify differences and similarities in the production, dissemination and implementation of clinical guidelines in both England and Wales and Portugal; 2) to highlight certain characteristics of guideline development in England and Wales which could potentially be of use to in the Portuguese context.

**Methodology:** A narrative review based on electronic searches from the Internet with appropriate search terminology, review of medical literature and hand searches from references of relevant articles. Documents in both English and Portuguese languages are included.

**Results:** Preliminary results will be presented

**Conclusions and implications:** This research will identify "best practice" in guideline development that could be implemented in Portugal to improve patient care. Moreover, considerations whether the National Institute for Health and Clinical Excellence clinical guidelines could be adapted for implementation in Portugal are made, with possible action and research recommendations to be devised.

P-10

## Grading recommendations in clinical practice guidelines: evaluation of the GRADE approach in Spain

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**Background:** GRADE (Grading of Recommendations Assessment, Development and Evaluation Working Group) has been developed by professionals from the main agencies developing guidelines and aims to be a simple, explicit and systematic system with the consensus of all parts. GRADE includes five dimensions evaluated by means of a ordinal qualitative scale (important outcomes for a decision, quality of evidence across studies for each outcome, overall quality of evidence of all important outcomes, compromise between benefits and risks and final recommendation).

**Objective:** The aim of this study was to evaluate the agreement of the GRADE approach to grading evidence and recommendations in our setting, and with a Spanish translation of the original materials available.

**Methods:** In the context of a GRADE workshop, 20 health professionals with experience in the evaluation of scientific evidence and guidelines development applied the GRADE scale to 12 evidence tables belonging to 12 clinical questions about interventions, diagnosis, and prognosis in the field of hypertension, asthma and osteoarthritis. Each evidence profile was based on the available information from several local guidelines (systematic review, randomised clinical trial and observational studies) and each participant chose on their own the important outcomes. Judgements were collected, summarised and discussed in the group. Percentage of agreement was calculated for each outcome from the 12 evidence profiles. Participants were also asked about the ease of understanding of the approach by means of a survey.

**Results:** 85 outcomes were identified but only seven of them were considered by all participants. The median of participants that chose the available outcomes was seven. In the diagnostic and prognostic examples the number of agreements was never higher than 10 participants. In the evaluation of the different dimensions the percentage of agreement was: overall quality 63.3%, compromise between benefits and risks 59.5% and final recommendation 56.6%. In the diagnostic examples none of them reached an agreement higher than 50%.

**Conclusions:** We believe that this system allows to make more explicit judgments, however, we have observed an important variability for the choice of important outcomes and a moderate agreement for the different dimensions included in GRADE. Some of the reasons for these results might include the lack of previous experience with the system (e.g. agreeing on the outcomes to consider beforehand) and the fact that this new approach still needs to be improved and tested. This is even more important for the diagnostic examples.

P-11

## Clinical practice guidelines development in Japan

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**Background:** The concept of evidence-based medicine (EBM) has widely disseminated in the last decade in Japan and the rapid spread of EBM has led to the development of evidence-based guidelines. The Japan Ministry of Health Labor, and Welfare began to aide the Japanese medical associations to develop evidence-based clinical practice guidelines (CPGs). With governmental financial aides, 23 guidelines have been published by the end of Jun of 2005. In 2004, Japan Council for Quality Health Care (JCQHC), a nonprofit organization, has launched a medical information service, "Minds" (acronym of the Medical Information Network Distribution Service), a web-based information platform of clinical practice guidelines developed by Japanese medical associations, under the funding of the government. Currently 10 CPGs are distributed through Minds system.

**Objective:** To assess the quality of guidelines developed by Japanese medical associations and realize the quality of them with regard to systematically development process and evidence-based methodology.

**Methods:** Through the process of appraising and opening guidelines in Minds, we have evaluated 10 guidelines with governmental financial aides using the Appraisal of Guidelines for Research & Evaluation (AGREE) instrument and other tools for assessing CPGs.

**Results:** We found that some of the guidelines with governmental financial aides achieved the goal for evidence collecting and appraising. Most of the members involved in guidelines development had the difficulty in consensus development and encouraging the involvement of consumers.

**Conclusions:** We need to make more effort on supporting medical experts involved in developing CPGs with preparing appraised clinical evidence and on distributing methodologies for guidelines development.

P-12

## Guidelines, algorithms. Audit and implementation

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**Objective:** This presentation details a novel approach to the development of guidelines, and subsequent methods to facilitate implementation through the inclusion of algorithms, which can be integrated with a clinical audit tool, as well as a method for identifying barriers to implementation and techniques to address those barriers.

**Background:** Internationally, there are distinct patterns in what evidence-based groups do, and subsequently what they offer health care professionals and consumers. Traditional approaches are based around the provision of evidence in the form of systematic reviews. Dissemination is a primary focus where the development and collation of resources is the primary function of an organisation.

Dissemination is a science in itself, with evidence suggesting use of multiple methods (such as review reports, summary reports targeted to clinicians, and consumer information) being more effective than expecting one document to meet all end users requirements. The Joanna Briggs Institute has undertaken a similar approach to the Centre for Reviews and Dissemination, with a range of evidence-based publications using differing language, content and layouts based on the intended purposes of each publication. The series Best Practice has existed in its current format since 1997, and has been evaluated in impact surveys in 1998, and 2002. These surveys suggested the language, level and direction of content were satisfactory, but the 6 page format was too long. Further to this, while the Institutes review program is centred under the Evidence Translation program, the Best Practice series are nominally located under the Knowledge Transfer program – thus Best Practice is in fact a component of the Institutes implementation program.

The development of guidelines has under gone transitions in methodology, which has resulted in greater transparency related to their development, and the degree to which research evidence was utilised in the recommendations. The guideline is seen as core to the process of implementing evidence. Guidelines though, have been found to long and often complex documents, features that decrease their usability in clinical settings. One approach to further facilitate implementation of guidelines is the introduction of algorithms as part of the guideline document. Curiously, while the literature is replete with examples of algorithms, evaluation or critique of their effectiveness is not well established, nor are the links and/or relationships between the producers and the end users clearly defined.

## P-13

**Use of consensus conferences in guideline development**

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Guidelines are often required to provide guidance in areas where not only has little research been done but where there is considerable uncertainty and even controversy. For the development of a guideline for the management of bipolar disorder we needed to give advice on the diagnosis of bipolar disorder in children and adolescents. In childhood bipolar disorder there is considerable symptom overlap with other more common disorders such as attention deficit hyper disorder and conduct disorder. We held a consensus conference to draw on the expertise of a range of experts both national and international in order to be able to make sound recommendations in this area. The one-day conference comprised presentations from invited experts and a general discussion to draw up a draft position statement which was further reviewed by the guideline development group and sent to a wider group of international referees for comment.

## P-14

**GuidePoint - a familiar technology put to new use for the authoring and viewing of clinical guidelines**

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**Objective:** To develop a cost-effective authoring and viewing tool for hospital clinicians seeking to write and share algorithm-style guidelines.

**Background:** When a clinician sits down to write a local clinical guideline, 9 times out of 10 the first step is to launch Microsoft Word. As a result, the final document is likely to be set to portrait format, sentence text with little if any graphics and the resulting product destined to be a paper document. Whilst the .doc format can be viewed on local intranets, it doesn't take advantage of the computer screen as easily as custom designed web pages. With specialist flowcharting software such as Microsoft Visio the clinician can produce professional quality screen-friendly output, but their widespread use across an organisation would be prohibitively expensive, in addition to a steep learning curve for authors

**Methods:** We have taken an established technology (Microsoft PowerPoint) and adapted it for authoring and viewing guidelines – hence the term GuidePoint. Some of the features of PowerPoint that lend it to this use are as follows; (1) the default 'Page Setup' for a slide is landscape i.e. designed for the computer screen, (2) suite of graphic design and drawing tools that enable flowcharts to be created within seconds with text-boxes, connector lines, arrows, drawing grids and snap-to-grid features, (3) slide master enables creation of slide template, (4) slides can be copied and moved between files seamlessly, (5) range of design elements can be pre-built into templates and custom toolbars, (6) hyperlinking between slides is fully supported enabling initial slide to be an overview flowchart linked to later slides with deeper content as needed, (7) ability to record and embed macros for printing single slides or handouts for guideline overviews, (8) output to PowerPoint Show creates stand-alone files for full-screen viewing, (9) standard file format recognised by web browsers, (10) XML functionality available for document stores, (11) standard software on 95% of hospital desktops, (12) encourages authors to write guidelines as flowcharts rather than text

**Results:** Thus far we have converted 50+ local guidelines to our GuidePoint format, accessible through our intranet. Clinicians have adapted to our approach with commendable ease.

**Conclusions:** It will still be some years before the promise of slick guideline driven clinical systems becomes a reality for the NHS and other cash-limited health services. In the interim, GuidePoint takes us a useful step towards an algorithm-style approach, necessary for practical implementation.

P-15

## Capacity building for CPG development and implementation in the Central Asian Republics

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Quality improvement of health care services in the Central Asian Republics (CAR) is currently a priority activity of the ZdravPlus Project funded by USAID. This is being accomplished using Evidence-Based Medicine (EBM) as a tool facilitating decision-making process. Development of EBM Clinical Practice Guidelines (CPG) is part of this process in CAR since 2000 and important successes have been achieved. But the quality of these documents is not perfect because of organizational, methodological, informational, financial and legal reasons. There is an increasing interest in the CPG development from organizations in the CAR. Many of these stakeholders provide potential for unifying efforts into high quality process, but there is a lack of leadership. Therefore, to ensure a sustainable system, the roles and functions should be specified and assigned to specific institutions. An internationally accepted CPG methodology has been already translated into Russian and adapted to CAR circumstances and ready to be officially accepted by Ministries of Health of the CAR. The problem is both in physical access (absence of access to Internet; paid sources of information; information is disseminated on ordered CDs) and in the absence of knowledge required (most of publications are in English; important data are given in statistic indicators; publications use scientific terminology). Informational support to CPG development and implementation is provided through established EBM Centers equipped with technical and informational facilities. With time, experienced staff of EBMC could take offer training in CPG development. The CPG development process has been funded by international donors and pharmaceutical companies. To address issues like safety, accessibility, and sustainability of the process it is logical that funding of these programs comes from the state budget, not parties with commercial or other interests. Clinical practice in the CAR is regulated by MOH orders, which are based on the experts' opinion. CPG development and implementation are not accompanied by revision of existing legal framework and providers are obliged to work in the conditions of double standards what poses problems in providing quality healthcare. The question of revising MOH legal and regulatory documents from the EBM perspective should be considered to remove present and potential contradictions with developed CPG.

P-16

## Adoption of a modified GRADE approach for grading of KDIGO guidelines

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**Objectives:** The newly launched Kidney Disease: Improving Global Outcomes (KDIGO) Initiative commissioned an Evidence Rating Group (ERG) to advise on a grading system for future KDIGO guidelines. An optimal grading system would lend itself to grading evidence on chronic kidney disease (CKD), be applicable to different types of clinical questions and healthcare settings and facilitate communication between developers and users of these guidelines around the world.

**Methods:** The ERG reviewed systems in current use by kidney disease guideline development groups as well as the GRADE approach. Members of the ERG communicated by email and conference calls and held a two-day meeting in Nov 2004.

**Results:** For questions on treatments, the ERG adopted the GRADE approach because it provides a structured outline for evidence synthesis and grading and allows making judgments explicit. The GRADE approach builds on evidence profiles with quantitative effect summaries from meta-analyses. When there are no existing meta-analyses and when it is not feasible to conduct them at the time of systematic review for KDIGO guideline development, the ERG will use a modified GRADE approach to qualitatively grade evidence profiles with qualitative effect summaries. The ERG also recognizes a need to incorporate evidence extrapolated from relevant non-CKD populations to populations with CKD for whom trial data is relatively limited. The quality of borrowed evidence can be adjusted in the "directness of the evidence" dimension. The ERG concurs with the GRADE working group, that the net health benefit to the patient should be determined and the quality of the supporting evidence should be graded before costs are considered. Since the net health benefit of an intervention depends on factors related to patients and settings, recommendations may differ in content and/or strength for different populations or settings. When global recommendations cannot be issued, local groups can use graded evidence profiles and develop graded recommendations following the GRADE template.

**Conclusions:** The GRADE approach was adopted and modified for use in future KDIGO guidelines on questions of interventions. Progress on grading evidence for questions of diagnosis, prognosis and harms will be followed and reviewed to determine the suitability of an approach for adoption by KDIGO.

## P-17

## Management of thalassaemia: adapting from policy to clinical practice guidelines

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**Introduction:** Thalassaemia is a genetically determined defect in hemoglobin synthesis. Thalassaemia and Sickle cell disorders are the most common inherited haemoglobin disorder that can be treated effectively and prevented at community level. The prevalence of thalassaemia carriers is 4.2 percent, according to a small local study on schoolchildren in Klang Valley done in 1998, and the Ministry of Health Malaysia has estimated that there are about 15,000 thalassaemia major patients in the country.

**Objective:** The aim of adapting the policy to clinical practice guidelines is to promote public awareness of the disorder through educational and counseling programmes on the availability of diagnosis, prevention and treatment. Besides that, it is also to determine safety, effectiveness, and cost implications, ethical and legal aspects. Aiding the practitioners in the management of patients with thalassaemia, including children, adults and pregnant women.

**Methods:** Electronic literature search using PUBMED database was carried out from 1992-2003 using specific keywords. A hand search was also done through all international Thalassaemia conference abstracts. All studies were appraised and graded according to relevance.

**Results:** There is sufficient evidence that a screening and preventive programme is effective to control  $\beta$ -Thalassaemia trait. Effective screening includes screening of 15-16 years old school students, premarital screening, antenatal screening and also screening of relatives of known carriers. Preventive programmes through counseling and health education. Diagnosis of thalassaemia through clinical diagnosis as well as laboratory diagnosis. Treatment for thalassaemia has sufficient evidence for usage of blood products such as leucocyte reduced red blood packed cells which are effective and cause less transfusion reactions and the use of neocytes for transfusion could decrease blood requirement but is costly. Chelation therapy has sufficient evidence that Desferoxamine and Deferiprone are effective in preventing or improving serious complications of the disease. There is also sufficient evidence that sibling donor bone marrow transplantation is safe and cost effective. Besides that, bone marrow transplantation from unrelated and alternative donors, cord transplantation and peripheral blood stem cell transplantation also have sufficient evidence on the effectiveness. Insufficient evidence to recommend other treatment modalities.

**Conclusion:** The development of Clinical Practice Guidelines for the management of thalassaemia will improve the quality management and prevent further increase of thalassaemia patients in Malaysia as a whole. The quality of life of thalassaemia patients could be improved with the adherence of this Clinical Practice Guidelines.

## P-18

## Development of guidance on the prevention and management of obesity

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**Background:** There is no central guidance on obesity prevention and management in England and Wales yet many healthcare professionals are uncertain about what interventions are effective (NAO 2001) and there is significant variation in service provision (Dr Foster 2003). The Public Health White Paper (DH 2004) highlighted obesity as a priority for action.

**Methods:** The Department of Health and Welsh Assembly Government commissioned the National Institute for Clinical Excellence (NICE) to work collaboratively with the Health Development Agency (HDA) to develop guidance on the prevention and management of obesity for clinical and non clinical settings. NICE subsequently commissioned the National Collaborating Centre for Primary Care (NCCPC) to work with the HDA. NICE methodology for clinical guidelines was employed (or adapted) as appropriate. Stakeholders were invited to comment on the draft Scope and nominate Guideline Development Group (GDG) members.

**Results:** The GDG was split into two sub-groups to give full consideration to clinical and broader public health issues – the HDA, in conjunction with its Collaborating Centres, leading on public health and the NCCPC developing a clinical guideline. However, the complementary nature of the work was recognised and final recommendations (including cost considerations) will be developed jointly to ensure a “joined up approach”. Stakeholders are encouraged to participate in the validation process during 2006 (see [www.nice.nhs.uk](http://www.nice.nhs.uk)).

**Conclusions:** Standard NICE methodology can be adapted to develop complementary public health and clinical guidance. Lessons learnt will inform the work of the National Institute for Health and Clinical Excellence, established in April 2005.

P-19

## Guideline on management of depression in primary care

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**Purpose:** Depression is a common disorder. The World Health Organization speculates that as many as 121 million people worldwide suffer from depression. In Hong Kong, based on the information from the Department of Health and Hospital Authority 2003/04, the prevalence of depression (age 15 and above) is 0.6 % in males and 2.1 % in females. This guideline is for primary healthcare workers especially general practitioners in particular.

**Method:** Evidence based guidelines developed by international organizations were reviewed and adopted according to the setting of our primary care setting:

1. Cochrane Review. The Cochrane Library, Issue 1, 2005
2. Guidelines for the treatment and management of depression by primary healthcare professionals developed by the New Zealand Guideline Group
3. Management of depression developed by the National Institute of Clinical Excellence
4. Clinical Practice Guideline on depression by Singapore Ministry of Health March 2004, and
5. Consensus with consideration of local practice.

**Results:** The guidelines are listed below with level of evidence according to US Agency for Health Care Policy and Research:

**Diagnosis:** Diagnosis is based on DSM IV criteria.

**Assessment:** Basic assessment of depression includes the history, the mental state examination and appropriate physical examinations.

**Management:** Treatment for depression include

1. Education and guided self-help.
2. Psychotherapy
3. Pharmacotherapy
4. Combination of psychotherapy and pharmacotherapy

**Conclusions:** The implications of this guideline are to ensure the practice evidence-based medicine and improve quality of management in Depression

P-20

## Development of guidelines on delirium in the general hospital: a formalized experts' consultation

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**Objectives:** Guidelines for the management of delirium in the general hospital have been developed by a multidisciplinary group of psychiatrists and physicians from different somatic specialties. Based on a systematic review of the literature, a formalized consensus was organized to determine the appropriateness of different interventions concerning risk factors, prevention, screening and diagnosis of delirium. The objective of the study was to confront evidence-based knowledge on delirium with expert ratings, as well as to examine the level of consensus between experts from different fields.

**Methods:** An exhaustive synthesis of the literature, detailing the different levels of evidence, was conducted and submitted to the experts. Based on this literature review and their clinical experience, experts were invited to grade the appropriateness of 248 statements on risk factors, prevention, screening and diagnosis of delirium. This proceeding was derived from the validated RAND appropriateness method (1) and consisted of two rating rounds with an intermediate discussion of topics for which votes were heterogeneous between experts. Agreement between experts on the appropriateness of each topic was calculated and a qualitative analysis of the verbatim of the discussion was performed.

**Results:** Quantitative analysis revealed an agreement between experts on 84% of the statements, which was moderately correlated with the levels of evidence in the literature. It also showed high levels of appropriateness of interventions to prevent delirium (95% of interventions considered appropriate), while feasibility of the interventions was lower (79% of them considered feasible). Qualitative analysis identified usefulness of screening and the role of physical restraints in the development of delirium as the most debated topics in the discussion.

**Conclusions:** A broad consensus existed between experts. However, some topics emerged as non-consensual even when supported by scientific evidence. It may be interesting to address them in future research projects.

(1). Fitch K et al. The RAND/UCLA appropriateness method user's manual. Santa Monica (CA): 2001.

P-21

## Appropriateness criteria for early diagnosis of colorectal cancer: fair agreement between an explicit panel-based method and an evidence-based approach

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**Objectives:** This study aimed to compare panel-based appropriateness criteria for colonoscopy, based on the clinical judgement of a multidisciplinary expert panel, with evidence-based criteria, based solely on literature. The project also allowed evaluation of how the experts' perceived level of evidence compared with the level of evidence actually found in the published literature.

**Methods:** 95 indications for colonoscopy related to screening for early diagnosis of colorectal cancer in asymptomatic patients, patients with inflammatory bowel disease, or after polypectomy or curative-intent resection, were judged by a multidisciplinary panel of 14 experts from 9 European countries, using the RAND Appropriateness

**Method:** A total of 226 relevant articles were retrieved from various computerised databases (Medline, Embase) and provided in a review to the experts. For each of the 95 indications, the appropriateness category for colonoscopy (appropriate, uncertain, inappropriate) was established according to the experts' judgement, and the literature. The experts' perceived level of evidence for each indication was measured on a 4-category scale, while the level of evidence in the literature was evaluated based on the study design. The level of agreement and the weighted kappa coefficients between the panel- and literature-based appropriateness categories, as well as between the level of evidence as perceived by the experts' and found in the literature, were calculated.

**Results:** A 46% agreement (weighted kappa 0.29) was found between the literature and experts' appropriateness criteria. Total discordance occurred in only 7 cases (7.4%). Compared to the literature's appropriateness criteria, the expert panel considered more colonoscopies to be appropriate (54% versus 37%) or inappropriate (27% versus 17%). Uncertainty was noted in 46% of the indications according to the literature, but only in 19% according to the experts. The concordance between the level of evidence as perceived by the experts and the actual level of evidence in the literature was 36%, corresponding to a slight weighted kappa [0.18]. The level of evidence perceived by the experts was overestimated in 60% of cases and underestimated in only 4% of cases.

**Conclusions:** This study shows that only rarely did the experts' judgement completely disagree with the literature, although concordance between panel- and literature-based appropriateness was only fair. In addition, experts often overestimated the level of evidence on which they based their medical decisions. A more explicit discussion of the standard of existing evidence should be undertaken with the experts before they evaluate appropriateness criteria.

P-22

## Developing evidence based service guidance to improve outcomes in head and neck cancers

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**Objectives:** A series of systematic reviews was undertaken to inform service guidance for the management of head and neck cancers, published by the National Institute for Health and Clinical Excellence.<sup>1</sup>

**Methods:** At a proposal-generating event, healthcare professionals and patient representative groups met to discuss issues that influence the outcomes of patients with head and neck cancers. As a result, a list of key questions for review was produced, addressing aspects of services likely to have a significant impact on health outcomes. Comprehensive searches were carried out for each review question using a range of databases. Unpublished data were also identified through personal contact with researchers in the field. Selection of studies was based on pre-defined inclusion criteria that specified the participants, intervention, comparator(s) and outcomes of interest. The studies were graded according to quality using an agreed hierarchy of evidence. Data were extracted into tables, which included a commentary on the quality of included studies. Inclusion screening and data extraction were carried out independently by one reviewer and checked by a second. The nature of the evidence concerning each question was described and the results summarised in a narrative synthesis, along with tables of studies giving fuller details of the research. The results of the systematic reviews were used alongside the expertise of healthcare professionals, patients, commissioners and economists to produce service guidance and identify key recommendations central to implementation.

**Results:** The quality of the research identified for many of the review questions was poor. In many areas randomised controlled trials have not been undertaken and either only observational studies exist, or no studies could be identified at all. The key recommendations covered commissioning services for patients with head and neck cancers at the Cancer Network level and ensuring that multidisciplinary specialist teams are central to the service, with each specialist managing at least 100 new cases of upper aerodigestive tract cancer per annum. Streamlining arrangements for referral at each stage of the patient's cancer journey, providing a wide range of support services and establishing co-ordinated local teams to provide long-term support and rehabilitation in the community were also recommended. There was also a recommendation to develop and expand research.

**Conclusions:** Underpinning cancer service guidance with systematic reviews ensures that key recommendations are informed by the best available evidence, and highlights areas in need of further research.

### References

1. NICE. Guidance on Cancer Services: Improving Outcomes in Head and Neck Cancers: The Manual. London: NICE, 2004.

P-23

## Importance of the national context for the draft of EBM documents: the case of breast cancer screening in Belgium

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**Background:** opportunistic screening for breast cancer is a frequent procedure in Belgium. It usually combines ultrasonography with mammography testing. This last test does not answer to the same quality standards as the mammography performed in the organised population screening programme. Moreover this opportunistic screening is more costly in a fee-for-service system.

**Objective:** this study reviewed the evidence-based literature to confirm the role of a population screening for breast cancer and the eventual usefulness of ultrasonography within this context.

**Methods:** a systematic literature review conducted by the Belgian Federal health care Expertise Centre included the guidelines' review, the consultation of EBM databases (DARE, Trip database and Cochrane) and a search in Medline for systematic reviews, RCT and original studies. Guidelines were rated using the AGREE instrument. The quality of the systematic reviews was scored using the instrument proposed by the Dutch Cochrane Collaboration. National experts (epidemiologists, GPs and gynaecologists) were consulted during the writing of the draft and foreign experts validated its final version.

**Results:** all guidelines recommended a breast cancer population screening for women aged 50 to 69 years. The American guidelines suggested beginning at 40 years of age but little scientific evidence supported this recommendation. Mammography was the only screening test recommended for population screening. The guidelines underpinned the importance of quality standards to increase the sensitivity and specificity of the test. Clinical examination, self examination and NMR did not show any evidence of effectiveness for population breast cancer screening. Ultrasonography was likewise not recommended for the population screening. First, no randomised controlled trial analysed the effect of screening with ultrasonography on death attributable to breast cancer. Secondly, the literature reviews on this topic were of questionable quality using the Cochrane Collaboration instrument. Finally, the few US studies advocating the use of ultrasonography used a weak methodology (e.g. observational design, sampling technique, standardisation of the procedures).

**Conclusions:** the development of these recommendations took account of the local context for the choice of the topic (e.g. public health priority, health care consumption, professionals' habits). The literature review did not find any evidence to support the practice of an opportunistic breast cancer screening using mammography and ultrasonography. Moreover the draft of this EBM document involved national and international experts to enhance the acceptability of the messages among health professionals.

P-24

## Keys for the successful implementation of EBM messages: from the analysis of the public health priorities to the feedback for health professionals

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**Objective:** this project analyses the role of different actors in the development of a recommendation from breast cancer screening from its inception to the implementation of the key messages.

**Methods:** a preliminary analysis of health care consumption was carried out to identify possible areas for quality improvement activities. A working group composed of stakeholders (scientific societies, trade unions, universities and health authorities) were consulted to decide which topic should be used to foster quality improvement activities. The development of the recommendation followed a rigorous methodology. National experts were involved in order to validate the scientific content and to facilitate the later implementation on the field. This validation was completed by a second one performed by foreign experts. Stakeholders were informed about the results of the systematic literature review. A few key messages were selected for the feed-back to general practitioners and gynaecologists.

**Results:** data from the health insurance companies showed that many mammography tests were combined with ultrasonography. Stakeholders decided to choose population breast cancer screening as a topic for quality improvement activities. The systematic review of the literature focused on three parts, i.e. advantages/negative effects, age groups and screening procedures. The key messages related to the age limits, to the need for performing the mammography according to European quality standards and to the uselessness of other procedures routinely performed. The stakeholders' group agreed on the content of the feedbacks for the health professionals. The individual prescription data was coupled with the scientific key messages. These feed-backs are discussed in peer review groups as a part of the accreditation procedure.

**Conclusion:** this project set up different stages to optimise the implementation of the recommendations, i.e. an analysis of public health priorities, the involvement of stakeholders from the project's inception to its implementation, the role of key experts to validate the scientific content of the recommendation and a feedback to the health professionals together with EBM key messages.

P-25

## Guideline dissemination and implementation strategies in Denmark

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**Objectives:** To discuss different ways of dissemination and implementation of guidelines in Denmark.

**Methods:** The means of publication of clinical practice guidelines from the Danish Secretariat for Clinical Guidelines (DSCG) in DACEHTA are today based on electronic versions of the guidelines published on the website of the secretariat. Furthermore, a printed pocket-size folder with a summary of the recommendations in the guideline is at the moment of publication sent to all relevant hospital departments. DSCG has not carried out a systematic evaluation of the implementation of its clinical practice guidelines, but a way to monitor the use of the guidelines is through the different national quality development projects/databases in Denmark.

**Results:** DSCG has since its creation in year 2000 published six clinical practice guidelines. The recommendations in at least four of these six guidelines are to some extent monitored by other national quality development projects, e.g.:

- through the National Indicator Project: guideline for schizophrenia, guideline for stroke
- through national clinical quality databases: guideline for hysterectomy on benign indication, guideline for epilepsy

The work of the National Indicator project as well as the national clinical quality databases focuses on documentation, monitoring and improvement of the quality in health care. The projects are based on Development of evidence based standards and indicators, Data collection, Data analyses, Evaluation and interpretation, Feedback, (Audit, Implementation of quality improvements), (Public) release of data. The systematic reviews and recommendations of the guidelines serve as an input to the development of evidence based standards and indicators in the mentioned national quality development projects. The national guideline programme must furthermore consider its role as a possible provider of "standards of good clinical practice" in two planned comprehensive national quality development projects, i.e. the Electronic Health Record and The Danish Health Care Quality Assessment Programme. The Electronic Health Record will be a common national basic information system supporting the providers' ability to share documentation and communicate information regarding the individual patient. A part of the record is supposed to be disease specific decision support to health professionals. The Danish Health Care Quality Assessment Programme is based on standards organised in general and disease-specific pathway standards concerning clinical care activities for the individual patient pathway.

**Conclusions:** In Denmark, a number of existing and planned quality development projects at the national level can be used to implement and monitor the use of (selected recommendations in) existing clinical practice guidelines.

## P-26

## Use of interactive evidence-linked annotated algorithms as evidence-based decision support tools at the point-of-care for implementing evidence-based healthcare

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**Objectives:** Expand understanding and utilization of interactive evidence-linked annotated algorithms for presentation of evidence (guidelines, point-of-care tools, decision support).

**Methods:** Developers of evidence-based content (summarized evidence, evidence-based guidelines) usually present information in text format, supported by tables and graphs. EB care requires useful point-of-care tools to support decision-making.

Point-of-care tools need to be robust, portable, quick, and able to be formatted into a small area of view. Text and tables do not translate well to the fast-moving realm of point-of-care decision-making. Many people learn through a combination of styles.

A graphic presentation of information in an algorithm format with capacity to drill-down to deeper levels of information and supportive evidence may have great value. Results of a literature search for evidence of value and utility of algorithm presentation of evidence will be presented. Information about end-user preference or aversion will be presented. Evidence for improved data collection, screening, diagnostic testing, clinical decision-making, and improved patterns of resource use, safety, and quality of care will be reviewed.

This heuristic algorithm is an evidence-based set of rules intended to increase the probability of solving a problem in a finite number of steps. Interactive evidence-linked annotated algorithms support a robust efficient nonlinear heuristic approach to critical information needed at the major decision points in the clinical process, including ordered sequence of steps of care in a decision tree, recommended observations, decisions to be considered, and actions to be taken. Standardized symbols should be used to display each step in the algorithm. Arrows connect the numbered boxes indicating the order in which the steps should be followed. Each step is numbered to a corresponding annotation. The annotations elaborate on the brief recommendations and statements that are found within each shape of the algorithm. Included in the annotations are full recommendation statements which are graded according to quality and strength of evidence, brief discussions that provide the underlying rationale, specific evidence tables, and supportive evidence citations. The citations are linked to an abstract, and to a full-test article when freely accessible.

**Results:** Techniques are presented for developing evidence-linked diagnostic and therapeutic annotated algorithms. Standardized format and methodology for development and presentation of algorithms presented. Application of internet-based versions of evidence-linked algorithms, numerous examples discussed.

**Conclusions:** Development and deployment of evidence-linked algorithms should be promoted for improved teaching, learning, and implementation of clinically-relevant evidence-based healthcare.

## P-27

## Quality improvement for contraceptive health in general practice

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**Objectives:** To evaluate the effectiveness of two implementation strategies for an evidence-based clinical guideline on oral contraceptives in daily general practice (GP).

**Method:** In 2002 the Flemish College of General Practitioners developed an evidence-based clinical guidelines for oral contraceptive use and distributed these by all Flemish GPs. We used standardized patients, as the best method to assess the performance of GPs in daily practice. On basis of a validated checklist the three girls scored their visits to the GPs and they registered the circumstances and the duration of the consultation. The mean score of the GPs in a study in 2003 was 24.01/48 (SD=7.01) and to get an amelioration of at least 11 points (+20%) the sample size for the intervention study need to be 45 ( $\alpha = 0.05$  and  $1-\beta = 80\%$ ). One hundred fifty GPs, using the same electronic medical record, were invited to participate at the study. Thirty of them refused and finally forty-five at random selected GPs received a first visit by a standardized patient.

Five months later one control and two interventions groups are planned. Both patients and GPs are blinded for the intervention. One group got the visit of an 'empowered' patient and the second group got a basic decision support on the contraceptive consult in a new update of their computer software. The third group was a control group.

**Results:** Forty-three consults could be analysed. Two GPs were sick and were not visited by the standardized patients. GPs score moderately with a mean score of 26.16 (SD=5.76). Less than one fourth asked for contra-indications. The students got enough information about the correct pill use but hardly on factors associated with pill failure and interaction with other medication. In only ten percent of the cases the prescription corresponded with the guidelines. Five months later the mean score was 26.39 (SD=6.86). Only the intervention group with the empowered patient performed significantly better, specifically on the items were the intervention was aimed for (11/13 GPs improved scores; mean score 29.92; SD =7.11); the computer and control group scored worse (mean scores 24.36 and 24.82).

**Conclusion:** Two years after the publication of the guideline there is no change in behaviour of the GPs. Developing guidelines is not enough for quality improvement. While electronic medical record provided basic support did not improve the doctor-outcome, educating patients may ameliorate the quality of the contraceptive consult.

P-28

## Clinical practice guidelines: measuring and understanding the role of organizational context

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**Objectives:** Research has shown that social and organizational context is an important predictor of clinical practice guideline (CPG) use. This project reports on the development, refinement and application of a survey designed to measure the perceived social and organizational context of CPG use within Ontario's cancer system.

**Methods:** A theoretically derived instrument was drafted, pilot tested and refined. The revised instrument included 37 items and was distributed to 1365 Ontario clinicians in Fall 2003.

**Results:** 459 surveys (33.6%) were returned. A principal components analysis yielded three factors that accounted for 71.6% of the variance. Factor 1, "strategy", is comprised of 18 items regarding how CPGs are used in the workplace and Factors 2 and 3, "colleagues" and "leaders", are each comprised of 8 items regarding attitudes towards and use of CPGs by respondents' workplace colleagues and leaders, respectively. The internal consistencies of the 'strategy', 'colleague' and 'leader' factors were 0.97, 0.94, and 0.97, respectively. Multiple regression analyses revealed that each of the three factors was a significant predictor ( $p < 0.05$ ) of respondents reported use of CPGs in making clinical decisions and that the factors jointly accounted for 40% of the variance in this item. Similarly, each of the three factors was a significant predictor ( $p < 0.001$ ) of respondents' perceptions of the usefulness of CPGs to their practice and that they jointly accounted for 45.6% of the variability in this item. Medical oncologists and radiation oncologists reported more positive attitudes towards, and greater use of, CPGs by their colleagues and leaders and more strategies in which CPGs were used in their workplace than did surgeons or other clinicians (all  $p < 0.05$ ).

**Conclusions:** An instrument comprised of three stable and theoretically relevant factors emerged. The three factors predicted clinicians' reported use of CPGs and perceptions of their usefulness. Differences in colleagues and leaders attitudes towards and use of CPGs as well as strategies in which CPGs are used in the workplace emerged as a function of discipline. The results of this study will be used as part of a larger investigation of clinician uptake of CPG recommendations.

P-29

## Effect of different strategies to implement guidelines: a cluster randomised controlled trial in general practice

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**Objectives:** The aim of this study was to evaluate the effect and costs of different implementation strategies for an evidence-based guideline on 'acute rhinosinusitis' in Belgium.

**Methods:** In a cluster randomised, controlled intervention trial with factorial design 36 local quality groups of general practitioners were randomly allocated to four study arms. The 'group intervention' arm discussed the guideline in a regular peer group meeting. In the 'academic detailing' arm GPs received an individual visit from a trained physician or pharmacist, introducing the key messages of the guideline. GP's in de 'combination' arm received both interventions. To half of the GPs in the three intervention arms a 'personalised patient advice' was presented as a tool to support restrictive use of antibiotics. No intervention was offered to the 'control' arm. Prior to the interventions all GPs had received a copy of the guideline on 'acute rhinosinusitis' by mail. During two months after the intervention period GPs registered their management of patients presenting with signs and symptoms of acute rhinosinusitis using forms designed for the study. Differences between groups in the proportion and choice of prescribed antibiotics and in costs were analysed using cluster specific analysis.

**Results:** A total of 130 general practitioners participated in the study: 89 GPs in the three intervention arms and 41 in the control arm. 682 patient encounters were registered: 200 in the 'group intervention' arm, 148 in the 'academic detailing' arm, 126 in de 'combination' arm and 208 registrations in the 'control' arm. The data are currently being processed and will be available at the time of the conference.

P-30

## The Baby Friendly Hospital Initiative in England and Wales: an economic analysis to inform guideline recommendations

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**Objectives:** The benefits of breast feeding to the health of both the infant and the mother are well established. However, there has been little improvement in the incidence of breastfeeding in the U.K. since the 1980s. The most recent surveys reveal initiation rates of 69% for the U.K. as a whole. In 1991, UNICEF and the World Health Organisation published a ten point action plan for improving breastfeeding rates worldwide called the Baby Friendly Hospital Initiative. There is evidence now that in areas where hospitals have achieved baby-friendly status, more mothers are breastfeeding their infants, and child health has improved as a consequence. The aim of this study was to investigate the cost implications of the UNICEF Baby Friendly Hospital Initiative (BFHI) in the U.K. in order to determine whether the system is a cost-effective intervention for the NHS in England and Wales.

**Methods:** The cost implications of introducing the BFHI were split into three areas of investigation: the cost of gaining and maintaining accreditation, the cost of training staff in the BFHI and the reduction in treatment costs associated with an increase in breastfeeding rates. All costs were discounted at 3.5%. Estimates of reduced mortality through increased breastfeeding were also calculated and used as an outcome measure in a cost effectiveness analysis.

**Results:** The costs of implementation were calculated over 15 years and averaged £7.42 million per annum (at present value). Based solely on the cost of treatment of necrotising enterocolitis, gastroenteritis, otitis media, asthma and the decreased use of teats and formula, a BFHI attributable increase in breastfeeding rates of 10% would bring an average annual saving of £8.27 million (at present value). Univariate sensitivity analysis on these results suggests a cost saving over 15 years can be reasonably concluded.

**Conclusion:** This model demonstrates that the financial savings in terms of reduced demand for infant formula and teats, and reduced treatment of necrotising enterocolitis, gastroenteritis, asthma and otitis media alone may exceed the cost of implementing the system nationwide within six years and that the inclusion of reduced infant mortality will further recommend the intervention.

P-31

## Feedback in Belgium in general practice: implementation barriers of recommendations

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**Background:** In 2003 and 2004 all Belgian general practitioners (GPs) received a feedback-document on their prescribing behaviour for antibiotics, including key recommendations. All GPs were invited to discuss this feedback in existing peer review groups ("Local quality discussion groups"). This policy-driven intervention aims to enhance auto-evaluation and peer review, as a tool to optimise GPs' prescribing behaviour.

**Objectives:** To study context-specific barriers and facilitators of interventions aiming at changing prescribing behaviour of family physicians.

**Methods:** A literature research on (a) the effectiveness of feedback and on evaluation methods and (b) on barriers and facilitators to GPs' adherence to evidence-based guidelines and to change prescription behaviour change. To assess the impact of interventions quantitative as well as qualitative methods are proposed in literature. In this research a qualitative approach will be used to understand the processes and determinants affecting the impact of the intervention. Focus groups and individual interviews will uncover attitudes (acceptance) and other barriers and facilitators to change prescription behaviour. Additional information is gathered by means of written questionnaires.

**Results:** The social context of an intervention heavily affects the effectiveness of the feedback. The relative importance of different barriers and facilitators influencing GPs' prescription behaviour and use of evidence-based recommendations is very much influenced by different circumstances and conditions. Assessing the impact of the intervention demands a more complex research approach than the proposed positivist evidence generating methods. Qualitative methods help to open, describe and understand the "black box" affecting the impact of an intervention

**Conclusions:** A specific methodology is necessary to assess the complex interaction of barriers and facilitators on changing GPs' prescription behaviour and adherence to evidence-based recommendations. To optimise future feedback-strategies a more specific analysis and understanding of the "contexts-of-use" of the information provided is necessary.

P-32

## A feasibility test of a new guideline - qualitative research with general practitioners reveals cultural barriers

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**Objectives:** Feasibility tests of new guidelines for general practice are part of the evaluation procedure in the German Association of General Practice. The basic idea is to find out barriers of the future implementation. Concerning the low-back-guideline we expected rejections of the recommendations more based on irrational and cultural than on rational arguments. So this guideline was evaluated by a qualitative method including a focus group discussion.

**Methods:** A group of general practitioners was invited to participate at a moderated focus-group-session after having made their first experiences with the new guideline recommendations in their practice. The focus-group was protocolled and taped. The transcript was coded and valued by two researchers concerning predefined categories.

**Results:** The general judgement of the guideline was positive. Only a few barriers for the implementation were identified. The patients' expectations of injections or manipulative therapy and their rejection of so called 'weak' analgetics was revealed to be the main barrier for a better diffusion of the new recommendations.

**Conclusions:** Even if GPs agreed to guideline-recommendations in general and had good experiences in presenting them to the patients, this method revealed emotional and cultural barriers of implementation on both sides, doctors and patients.

P-33

## An evaluation of attitudes and expectations of German primary care physicians concerning evidence-based CPGs

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**Objective:** In order to improve the quality of care and to optimise drug therapy a focus group of German primary care physicians was invited to tailor best available evidence-based guidelines to the needs of daily practice. AQuMed recommended content and format of the CPGs with the experience of the German Guideline Clearinghouse. Part of the program was to study the expectations and fears of the intended users concerning guidelines.

**Methods:** The regional Association of Statutory Health Insurance Physicians (Hesse) analysed the prescribing habits of general practitioners and (internal) specialists. 136 high prescribers of the primary care sector were selected. The focus group met in quality circles which are well-established institutions of the SHI-association and part of the internal quality assurance and CME. Accompanying the tailoring process the expectations and fears to use CPGs of the SHI-authorized physicians were examined with the help of a structured questionnaire. This was performed by AQuMed. The initial answers were compared with the final results after the 15 months study.

**Results:** The initial evaluation showed remarkably positive results. Guidelines were viewed as help for decision making, sustaining common therapeutical decisions between patient and physician, promoting a rational and science-based therapy and dissemination of current scientific knowledge. The ownership of guidelines seems to play an important role. Nearly all participants would prefer guidelines from general practitioners for peers. Less than 60% stated that CPGs should be produced interdisciplinary by specialists from both the ambulatory and secondary care sector.

Nearly 90% agreed that the recommendations of CPG should be based on a clear scientific and transparent background.

A majority also clearly stated that CPGs limit neither the scientific progress, nor the patient-related therapy, nor the freedom of therapy decisions. After finishing the 15 month tailoring period the final evaluation showed little differences compared to the initial one with the exception of two aspects which were viewed positive: the guidelines' role as help for decision making, especially in shared decision making with the patient.

**Conclusions:** The participants of this study represent a group of physicians with obvious deficits in the optimal management of drug therapy and participated in the quality circle to avoid budget cut. Nevertheless the study revealed optimistic expectations in guidelines. The chance of a successful implementation increases with the knowledge of guidelines. For the development and implementation of CPGs it is necessary to know the present attitude of physicians towards CPGs.

## P-34

## Implementation of SIGN guidelines

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A first step in implementing a clinical practice guideline (CPG) is gaining an understanding of current clinical practice. Audit tools designed around CPG recommendations can assist in this process.

Audit tools were developed for SIGN 64, *Management of Patients with Stroke* and sent to healthcare provision sites around Scotland. The results were discussed at two national workshops attended by allied health professionals and nurses.

Healthcare professionals found the tool thorough but time consuming. Audit of recommendation 3.1.1, *Patients and carers should have early active involvement in the rehabilitation process*, revealed that all patients received verbal information while only a third received written information. The most frequently covered topic was speech. Audit of recommendation 3.3, *Stroke patients should be mobilised as early as possible after stroke*, revealed that healthcare professionals did not agree on what constituted 'early' mobilisation. 45% of patients were mobilised within 24 hours, but this varied from upper limb exercises to walking.

Audit tools not only identify gaps between current practice and CPG recommendations, but reveal differences in interpretation that suggest that recommendations in clinical guidelines need to be more explicit.

## P-35

## Using a theoretical framework to identify and address barriers to the uptake of evidence-based clinical practice guidelines in general practice

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**Objectives:** [1] To identify the barriers and enablers to implementing an evidence-based clinical practice guideline for acute low back pain in general practice using a psychological theoretical framework; [2] To develop a tailored implementation strategy to increase the uptake of the evidence-based clinical practice guideline which addresses the modifiable barriers and is underpinned by psychological theory.

**Methods:** Focus group interviews were conducted with general practitioners in Victoria, Australia, to identify the barriers and enablers to implementing an evidence-based clinical practice guideline for the diagnosis, prognosis and treatment of acute low back pain. Participants were asked to respond to a series of open-ended questions about their current management of patients with acute low back pain and the factors which influenced their behaviour regarding the key messages identified in the guideline, namely giving advice to patients to stay active and requesting a plain x-ray of the lumbar spine. The interview schedule was based on theoretical domains considered relevant to changing the behaviour of healthcare professionals including: knowledge; skills; social/professional role and identity; beliefs about capabilities; beliefs about consequences; behavioural intention, motivation and goals; memory, attention and decision processes; environmental context and resources; social influences; emotion; behavioural regulation; and nature of behaviours. The interviews were audio taped and transcribed. Content analysis was conducted to identify the primary themes in the data and to inform the development of the targeted implementation strategy.

**Results:** It is expected that results will be available for discussion by November 2005. The main findings of the focus group interviews will be discussed and the implementation strategy will be described with reference to the theoretical framework.

**Conclusions:** A theoretical framework is useful when investigating the barriers to evidence uptake and to better inform the choice of implementation interventions to address modifiable barriers. If the benefits of evidence-based clinical practice guidelines are to be realised, a greater understanding of the factors influencing health professional and organisational behaviour and how they can be targeted in implementation research is required.

P-36

## Implementing an evidence-based clinical practice guideline of acute low back pain in general practice: the design of a cluster randomised controlled trial

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**Objectives:** To describe the design of a cluster randomised controlled trial to test the effectiveness and cost effectiveness of a tailored strategy for implementing an evidence-based clinical practice guideline (CPG) for acute low back pain (LBP).

**Methods:** A random sample of general medical practices in Victoria, Australia, will be invited to participate in a C-RCT. Patient eligibility will be based on: acute non-specific LBP (less than 3 months); older than 16 years of age; able to write and understand English; access to telephone. Practices within strata (proportion of compensable patients and whether rural or metropolitan) will be randomised to an intervention or control group. A statistician, independent of the study, will generate the random allocation sequence and administer sequential allocation. Clinicians in the control group will receive access to the CPG as per the existing dissemination strategy plus a written reminder of how to access the CPG online, while those in the intervention group will also receive the same as the control group plus active implementation of the CPG. The sample size has been calculated at 92 practices and 2300 patients. The implementation strategy will concentrate on delivering the CPG's key messages, namely that plain x-rays are rarely necessary in the management of acute LBP and that remaining active reduces pain and disability. The implementation strategy is currently being developed by conducting focus groups with practitioners to determine the barriers and enablers to implementing CPGs. Outcomes will be assessed at the level of the GP (lumbar x-ray referral, gave advice to stay active) and the patient (pain and disability). A blinded outcome assessor will conduct practitioner file audit and patient telephone interviews. The economic evaluation will be expressed as additional costs (savings) per additional disability and additional costs (savings) per QALY gained.

**Conclusions:** Determining the added value of a targeted implementation strategy over that of access to evidence alone will allow for effective planning of ways to best use the growing amount of reliable evidence. For acute LBP, improving the quality of care through increased uptake of CPGs has the potential to reduce the morbidity and cost associated with the management of this common condition.

P-37

## How to improve the management of major depression in the general hospital? An evaluation of the impact of guidelines

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**Objectives:** After the development of Guidelines for the management of Major Depression in patients with somatic diseases, an implementation study was conducted to evaluate their impact on detection and management of major depression.

**Methods:** Diffusion of the Guidelines on the Intranet of the hospital was followed by two interactive sessions with clinical residents. One was dedicated to presentation and discussion, the second to training with an actor in order to learn how to use the short form of the guidelines. The intervention was conducted by the consultation-liaison psychiatry and designed to be reproducible in "real world conditions". Discharge letters of 337 patients prior and of 325 patients after the intervention were evaluated for diagnoses, treatment or discussion about major depression. A secondary blinded analysis was also performed to evaluate if a psychological evaluation or any element of psychiatric management was mentioned in the letters.

**Results:** No statistical differences were found concerning the number of diagnosed major depression before and after the intervention. However, more remarks on the psychological state of the patients or its management were observed after the intervention.

**Conclusions:** Despite a possible effect on training residents' attitude regarding psychological aspects of medical diseases, the intervention was not successful in improving the detection and treatment of depressive disorders. Other strategies will have to be considered, which could consist of more intensive or differently structured interventions to implement guidelines.

[1] Voellinger R, Berney A, Baumann P, Annoni JM, Bryois C, Buclin T, et al. Major depressive disorder in the general hospital: adaptation of clinical practice guidelines. *Gen Hosp Psychiatry* 2003 May;25(3):185-93.

P-38

## A systematic review of clinical audits assessing cancer referral guidelines

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**Objectives:** To systematically review clinical audits undertaken to assess the implementation and effectiveness of the referral guidelines for suspected cancer.<sup>1</sup>

**Methods:** Many clinical audits are only documented internally; therefore emphasis was placed on systematically contacting relevant people across the NHS to request copies of audits. 650 key individuals within NHS trusts and Strategic Health Authorities were contacted. We also contacted other key organisations across the NHS, searched websites of key organisations, posted requests on relevant email discussion lists, conducted hand searches of conference proceedings and searched electronic databases, including grey literature databases. Any type of evaluation that measured the effectiveness of the cancer referral guidelines, and that reported minimum details of the methodology used, was eligible for inclusion. Relevant data were extracted using a pre-defined, piloted data extraction tool, incorporating quality assessment. Inclusion screening and data extraction were carried out independently by one reviewer and checked by a second. Studies were grouped by cancer site and a narrative synthesis was performed.

**Results:** Responses were obtained from 85% of hospital trusts, 58% of primary care trusts and 32% of Strategic Health Authorities. Of 624 audits received, 241 met the inclusion criteria. Many trusts do not appear to hold a centralised record of clinical audits that have been performed within the trust. In many cases several follow-up contacts were necessary before we received copies of audits. There were instances when we were told an audit had been conducted, but that no report had been produced. There was wide variation in the findings of included audits, reflecting the variation in the audit populations, criteria being evaluated and how adherence to the guidelines was assessed. Being able to evaluate the quality of a clinical audit is central to both informed decision-making and clinical governance. The majority of included audits were poorly reported, only 44% provided sufficient detail on methodological aspects for the audit to be reproducible. Under 20% reported an action plan outlining any recommended changes to service delivery.

**Conclusions:** There should be a system of recording ongoing and completed audits conducted within the NHS to ensure that audit reports are produced and accessible. The NHS should ensure that not only are appropriate audit methods used, but that audit reports are written up in sufficient detail to allow the reader to assess the validity of the results. Action plans should be documented and trusts should re-audit to confirm improvements in health care delivery.

### References

1. Department of Health. Referral guidelines for suspected cancer. London: Department of Health, 2000.

P-39

## Breakthrough-project breast carcinoma in the Netherlands: effective structured implementation of clinical practice guidelines, April 2004 - June 2005

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**Objective:** The measurable improvement of breast carcinoma care in twelve breast cancer units in the Netherlands through structured realisation of best practices as described in a clinical practice guideline.

**Background:** Despite the availability of evidence-based clinical practice guidelines, it was recognized that considerable improvements were feasible by implementing best practices on breast carcinoma care in hospitals.

**Methods:** Central goals were identified through interviews with practitioners and analysis of data and reports: faster triple diagnosis, reduction of waiting time for operation, reduction of operation burden by reducing unnecessary operations (the yield of punctates was to be improved by limiting the practice of the procedure to experienced professionals, and combining punctates with echo or stereotaxis) and more frequent preoperative multidisciplinary evaluations (all patients visiting a diagnostic breast outpatient department were to be evaluated by a multidisciplinary team consisting of a surgeon, a breast cancer nurse, a radiologist and a pathologist; this should lead to more clear-cut diagnoses, less diagnostic operations, less re-operations and less control visits). Hospitals / breast cancer teams were allowed to participate only if they had a breast cancer nurse. A sheet was developed for the collection of data and the automatic generation of indicators. Throughout the project, breakthrough-managers and health professionals co-operated intensely to develop hands-on material for teams to achieve practical improvements.

**Results:** Twelve hospitals were included in this breakthrough project. Nine out of the first twelve hospitals achieved a maximum waiting time of one week for patients with possible breast cancer symptoms to a hospital visit of the outpatient department. Diagnosis was established within one week in eleven hospitals. All hospitals achieved an average waiting time of three weeks for women with diagnosed breast cancer to undergo operation, eight teams achieved two weeks. Eleven hospitals had a clear-cut (pre-operative) diagnosis in 95% of cases by the end of the project. At least 50% of patients were discussed in a multidisciplinary setting before the operation in eight hospitals, while this result was achieved in three hospitals only at the start of the project. During the project, an additional goal was identified in the form of the pre-operative consultation with a breast cancer nurse, since this leads amongst others to more breast saving operations. This consultation took place in eleven hospitals.

**Conclusions:** Breast carcinoma care has been measurable improved through breakthrough projects centring on the structured implementation of best practices as described in clinical practice guidelines.

## P-40

## An e-mail survey to Finnish physicians on their use of the current care (Käypä hoito) guideline on alcohol abuse

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**Background:** National evidence based Current Care guidelines have been developed since 1994. The main dissemination routes are on the free access Internet ([www.kaypahoito.fi](http://www.kaypahoito.fi)), the professional health portal with limited access ([www.terveysportti.fi](http://www.terveysportti.fi)) and in the Finnish Medical Journal Duodecim. There is a continuing discussion over whether the paper version should or should not be abandoned. The electronic media allow for using of all the background information, evidence summaries, pictures, even links to the Cochrane abstracts.

**Objective:** To find out how Finnish physicians consider the paper publication, and how they are using the web services for current care guidelines.

**Methods:** The present authors formulated the questions to be asked by first starting off with a long list of what would be interesting to know and in an iterative process eliminating the superfluous ones, ending with altogether 21 structured questions and one space for free comments. The link to the electronic questionnaire was emailed to a random sample of 1700 Finnish physicians. In all 1158 responded to one or more questions (response rate 68%), 55% of them female and 58% specialists. The proportion working in primary care was 39% and in hospital 47%. These figures are representative of Finnish physicians.

**Results:** On a 5 point Likert scale, 50% and 42%, respectively, considered it very important or important that there are Current Care guidelines on the central diagnoses of their speciality. Only 19% of the respondents were not aware that the guidelines can be freely accessed on the Internet. Having read the guideline, 87% reported that they return to the text later on. A majority (69%) state that it is the professional Internet portal (Terveysportti) route that they then use, whereas only 18% use the free [www.kaypahoito.fi](http://www.kaypahoito.fi) -route.

**Conclusions and implications:** The results indicate that the professional internet portal (Terveysportti) is the most important access to the guidelines, and that altogether almost 90% of those returning to the guideline later on use the Internet. The professional internet portal with limited access but with a multitude of other services seems to be much more valuable route to Current Care guidelines than the free access internet portal without other services. The time may be approaching to use the Medical Journal only for informing the physicians of the appearance of a new guideline.

## P-41

## A primary care center-based controlled trial of guidelines implementation for the control of hypertension in diabetic patients in the United Arab Emirates

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**Objectives:** Evaluate if an educational intervention aimed at primary health care physicians to improve the management of hypertension in patients with diabetes results in better blood pressure control.

**Methods:** Clustered randomized controlled trial of academic detailing on the application of guidelines on blood pressure control in patients with diabetes. There were 4 clinics randomized in each group. The study has an 80% power to detect a mean blood pressure change of 3mm of Hg. The guidelines were adapted from the ADA's "Standards of medical care in diabetes, January 2004". Guidelines were presented in focus groups of primary care providers in the intervention clinics. The revised guidelines were distributed in the intervention clinics to the physicians during a one-to-one initial educational encounter. A second visit was done 4 to 6 weeks later to complete the academic detailing. The intervention started on February 1st, the academic detailing visits were done between May 14th and July 1st 2005. End-point measurements will be obtained in September 2005.

**Results:** The data is currently (June 2005) being collected. Analysis will be completed in October 2005. The primary outcome will be mean blood pressure change in patient samples from the intervention clinics and the control clinics. Secondary outcomes relate to the process of guidelines application; re: frequency of blood pressure measurement and rounding to nearest 2mm of Hg, occurrence of microalbuminuria testing, anti-hypertensive medicine use.

**Conclusions:** Primary care medicine in the United Arab Emirates has to catch up to the level of western countries. The emphasis remains on immunization and pre-natal care. The recent evolution of the burden of disease towards the consequences of a western lifestyle has been recognized recently. The primary health care physicians are ill-prepared for the change in practice and find themselves having to adapt sophisticated western-generated guidelines to a system undeveloped in the area of chronic disease management. We will report on the adaptations needed to deal with cultural and structural impediments to the implementation of western-generated guidelines in a recently industrialized country.

P-42

## The use of clinical indicators based on clinical practice guidelines improves the care process in patients with stroke

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**Objective:** To analyze the impact of the implementation of some prioritized and Clinical Practice Guidelines (CPG) based quality indicators for the stroke process in the hospitals of the Basque Health Service.

**Materials and methods:** In order not only to purchase and reimburse but to audit and improve the care in the stroke process, we chose by consensus 12 indicators extracted from good quality CPGs (AGREE Instrument as criteria for quality and inclusion). After a pilot test of the status of the indicators (2003), we applied them in 200. For this purpose, we chose at random a series of 209 clinical histories, of four tertiary hospitals of the Basque Health Service (Osakidetza) in a one year period. We have considered both hemorrhagic and ischemic stroke, including transient ischemic accident (Diagnostic Related Groups version 18.0: 14, 15 and 810).

**Results:** A total of 2237 cases of stroke occurred during 2004, mean age: female 73.44 and male 69.17 years. In general, the indicators obtained good ratios in all the hospitals examined. 81% of the patients that reach the emergency area were monitored for cardiovascular risks. 77.8% were prescribed antiplatelet agents in the first 12 hours. The contact with hospital in the first 6 hours was made in 51.6% of the cases. CT-scan was performed in the first 6 h in 51.6%. ECO Doppler was performed in 57%. Risk factors evaluation and counselling was made in 65.1%. Nevertheless, we observed variability between hospitals.

**Discussion:** We observed an improvement when comparing with previous year, 2003. The variability observed between hospitals was due in part to differences in the available resources, but also due to the management in every hospital and could be diminished by the availability of written common protocols for routine and more specialised investigations. The indicators extracted from the CPGs seemed to be good tools for analyzing and improve the processes of management of certain pathologies in tertiary hospitals. The audit process will continue and will be reviewed each year to ensure the quality of care and reduce variability.

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## Implementation of guidelines for home oxygen therapy

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**Objectives:** Long-term oxygen therapy improves survival and may postpone the progression of pulmonary hypertension in patients with chronic obstructive pulmonary disease (COPD). To improve the quality of COPD care, the guideline 'Home oxygen therapy' was developed by the Dutch Thoracic Society. The aim of this project is to define the optimal implementation strategy for this guideline by a pilot implementation in two areas in the Netherlands: one rural area and one area including a university medical centre. Based on the results from this project, an action plan for nation-wide implementation of the guidelines will be developed.

**Methods:** The barriers for implementation were analyzed using semi-structured interviews with all stakeholders (chest physicians, nurse practitioners, medical insurance companies, oxygen providers and patients). The implementation strategy was based on this analysis and was tailored to the characteristics of each area. Interventions included an educational meeting, audit and feedback as well as outreach visits. Adherence to the guideline was measured before and after the interventions using a set of 10 balanced quality indicators derived from the guideline. These indicators were monitored with a patient survey and a registration form. The registration form also facilitated the physician to comply with the guideline. At the end of the implementation phase, a qualitative analysis of the efficacy of the interventions in terms of changes in knowledge and behaviour was determined using a survey among clinicians.

**Results:** Baseline measurements showed that in both areas only 25-50% of the oxygen prescriptions was in accordance with the guideline. Although most patients were satisfied with the information provided on oxygen therapy, 71% and 45% in the rural resp. academic area could not state their oxygen dose and daily duration of oxygen use. The final results of the implementation will be presented at the meeting.

**Conclusions:** To facilitate clinicians to adhere to guidelines, sufficient resources are essential. These include time, manpower and tools such as registration forms and information leaflets. Moreover, commitment of stakeholders to use the guideline, a strong belief in the efficacy of the recommended treatment, sense of control and an enthusiastic regional opinion leader contribute to the success of the implementation.

## P-44

## A review of iron management practices: barriers to implementation of guidelines in dialysis units in Australia

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**Objectives:** This study was designed to evaluate the outcomes of the standard implementation strategy used by Caring for Australians with Renal Impairment (CARI), of passive dissemination of guidelines in hardcopy and on the internet and to document barriers to implementation of the guidelines in the future.

**Methods:** An on-site review of six dialysis units throughout Australia, with varying size and locality, examined the processes used for assessment of indices of iron stores and the iron supplementation, compared with the CARI guideline. Haemoglobin levels and iron indices for the units were accessed from Australian and New Zealand Dialysis and Transplant Registry (ANZDATA). A comparison was made between the units' iron management process and their iron results.

**Results:** There was considerable variability of iron and haemoglobin levels seen across the units examined with results ranging from 29-48% within target haemoglobin range of  $>120\text{g/L}$ , 30-68% within serum ferritin target of  $300\text{-}800\mu\text{g/L}$  and 62-73% within percentage transferrin saturation target of 20-50%. Barriers to implementation included lack of knowledge and existence of guideline as well as trust in the guideline, ability of clinical units to implement guideline, as well as inability to reach agreement as to a uniform protocol and difficulties in nursing staff accessing certain patient data. Factors that were associated with achievement of targets set by guidelines include nurse driven iron management as opposed to being nephrologist reliant, agreement between nursing staff and nephrologists to a protocol applied across the unit, an iron management decision aid, fewer nephrologists per dialysis unit, and whether the protocol aimed at actively keeping iron levels within target range compared with reacting only if out of range.

**Conclusions:** Despite a common clinical practice guideline there was variability in iron parameters across the units, which appeared to be explainable by variability in process of care for maintaining adequate iron levels. Barriers to implementation could be overcome through agreement from nurses and nephrologists on predefined iron parameters and through creation of an agreed process of decision making and iron delivery within the individual dialysis units.

## P-45

## The substitution of atenolol by metoprolol - a rapid method to implement scientific results into daily practice

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**Objective:** A meta-analysis showing that the use of atenolol reduces blood pressure but does not result in a corresponding reduction of cardiovascular disease appeared in The Lancet in November 2004. The paper convinced the Dutch College of General Practitioners to decide that substitution of atenolol by metoprolol should be recommended.

**Methods:** The advice has been published in Huisarts en Wetenschap, the Dutch scientific journal for general practitioners and on the website of the Dutch College. Besides this advice a plan has been produced, to inform doctors how to implement this scientific evidence into daily practice. A letter for patients providing the backgrounds of the substitution appeared as well.

**Results:** The effect of these actions will be illustrated with prescription data of atenolol and metoprolol.

**Conclusion:** This coherent packet of documents enabled the Dutch general practitioner to respond rapidly to scientific developments.

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## Recognition and use of cancer screening guidelines in Japan

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**Background:** To prevent premature death, cancer screening programs were introduced in Japan for all residents >40-years-old by the Health Service Law for the Aged in 1989. Although the research group for cancer screening in Japan recommended 6 cancer screenings in 2000, new modalities for cancer screening have been introduced elsewhere without evaluation by reliable studies. Modalities for cancer screening could be selected on a case-by-case basis, depending on the purpose in the municipality. The extent to which cancer screening guidelines are recognized and used is unknown.

**Objective:** To evaluate recognition and use of cancer screening guidelines, we conducted a postal survey of all municipalities in Japan. Based on the results, procedures to provide information concerning cancer screenings could be re-examined.

**Methods:** The survey was conducted by mail-out to 3,327 municipalities in July 2004. A questionnaire included the following items concerning cancer screening: conducting programs and recognition and use of the guidelines. Furthermore, the same questions on basics knowledge and preference of cancer screening from a US survey were added.

**Results:** Response rate was 69.9% (2,306/3,327). Most respondents (84.0%) were district nurses working in cancer screening programs in the community. Although 72.6% of respondents knew the guidelines, 27.8% had never used them. Cancer screening programs not recommended in the guidelines were being conducted by 65.9% of the municipalities. When respondents were divided into two groups according to whether or not unrecommended screenings were conducted in their municipalities, the answer that unrecommended screenings could be conducted as public policy was provided by 31.2% and 14.9%, respectively. Conversely, in the same two groups, respondents who believed that unrecommended screenings could be conducted as opportunistic screenings were 62.9% and 52.9%, respectively. While, 10.5% of the respondents felt that a 55-year-old person who chose not to be screened was irresponsible, 1.1% felt the same for this situation involving an 80-year-old.

**Conclusions:** Recognition and use of cancer screening guidelines is insufficient in Japan. To reduce mortality from cancer, effective screening based on reliable evidence, should be conducted and accurate information must be disseminated.

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## Retrospective analysis of conformity with clinical practice guidelines for elderly patients with early breast cancer

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**Objectives:** Age-specific clinical trials demonstrate that aging does not influence the efficacy of cancer treatment, whereas age-dependent variations in care seem to persist. The aim of this study was to analyze medical practice in the Comprehensive Cancer Center of Lyon, and to evaluate compliance with national Clinical Practice Guidelines (CPGs).

**Methods:** Records of women  $\geq 70$  years with early breast cancer referred from 1996 to 2002 were reviewed. Tumor characteristics and medical decisions were collected. Records of 100 women were randomly selected to assess medical practice compliance with CPGs. The CPGs were based on specific recommendations for elderly breast cancer pts published by the French Federation of Comprehensive Cancer Centers in 1996.

**Results:** 318 files were analyzed. Patient median age was 75 years (range 70-90). Tumor size was the only risk factor that increased with age. Patients  $\geq 80$  years were less likely to undergo conservative surgery for tumors  $< 30$  mm (73% pts  $< 80$  years; 56%  $\geq 80$ ;  $p=0.02$ ), axillary node dissection (80% pts  $< 80$  years; 55%  $\geq 80$ ;  $p<0.001$ ), adjuvant radiation (85% pts  $< 80$  years; 42%  $\geq 80$ ;  $p<0.001$ ), and chemotherapy (15% pts  $< 80$  years; 1%  $\geq 80$ ;  $p<0.001$ ). The compliance rate with CPGs was 50%. Twenty-six percent of surgical treatments, 11% radiation therapy, 30% endocrine therapy, and 4% chemotherapy were outside the recommendations of the CPGs. Age was significantly correlated with poor compliance with CPGs ( $p=0.04$ ).

**Conclusions:** CPGs for elderly patients with early breast cancer, which have not been updated since 1996, have become inadequate with the introduction of more recent therapeutic advances. Multidimensional geriatric assessment should be integrated in the recommendations to improve conformity with CPGs.

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## Current care guidelines - knowledge, attitudes, practices and future expectations among the Finnish physicians

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**Objectives:** Since its launching in 1994, the Finnish Current Care (Käypä hoito) has produced 56 guidelines. All guidelines are freely easily accessible via Internet. These electronic versions are also available on CD-ROM. The significant difference from the printed version is the accessibility of the evidence summaries on which the grading is based. There are direct links to the original Cochrane reviews and in the near future the original articles. The electronic version is the main medium of guideline dissemination. The aim of the present study is to assess the knowledge, attitudes and use of Current Care guidelines among the Finnish Physicians, and map their expectations for the future development of the guidelines in Finland.

**Methods:** An electronic web-based questionnaire will be sent to 1600 randomly selected working-age physicians in Finland. The sample covers all specialties and the sample size is large enough for sub-group analyses in major specialties. The questionnaire includes background data, questions about the knowledge and use of the 54 guidelines already available, method of the use (printed or electronic) and priority of 32 guidelines, which are in production at the moment. Attitudes to the guidelines are asked using a set of standardized statements. Based on the frequency and cost of the use of health care services, a list of 72 diagnosis or causes of the visits was developed. In order to assess the expectations for the future topics of the guidelines, the physicians are asked to select these topics, in which they see the guidelines useful for their work. In addition to the selected topics on the list, other topics can also be suggested. The study will be conducted in September 2005, and the fresh results will be presented in the conference.

**Results:** (1) knowledge and attitudes about the guidelines, (2) use of the guidelines, (3) method of the use, (4) priority of the guidelines in production, and (4) priority of topics for the future guideline production.

**Conclusion:** The study will give a comprehensive picture about the use of Current Care guidelines in Finland and provide important user-based information for the future development of guidelines.

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## Combined quantitative and qualitative methods to identify local facilitators of and barriers to physician's adherence to clinical practice guidelines in internal medicine wards in the Aquitaine region

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**Objectives:** The effectiveness of CPG implementation interventions could be improved by their adaptation to facilitators of and barriers to practice change in each setting. Very few is known about these local factors in French Hospitals. Our objectives were to identify the facilitator factors of and barriers to physician's adherence to CPG in internal medicine wards in France and to determine the factors most strongly statistically associated to CPG adherence. The project was in part funded by the National Authority for Health (HAS).

**Methods:** Combined qualitative and quantitative methods. Two CPGs were chosen as examples : a regional CPG on thyroid testing and a national CPG on Community-acquired pneumonia treatment and diagnosis. The settings were internal medicine wards of hospitals of the Aquitaine region voluntary to participate. Qualitative analyses were conducted in the internal medicine wards of 5 hospitals in the Aquitaine region selected among the 12 voluntary hospitals to represent the variability of situations. It was conducted by health anthropologists and sociologists using 3 weeks participant observations in each ward and interviews with each physician of the participating wards (50 interviews).

Quantitative analysis. A questionnaire was constituted by the factors retrieved through the qualitative analyses and a previous literature review (1) as barriers or facilitator factors to physician's adherence to CPG and asked the physicians on the degree of CPG adherence. It was sent to each physician of the internal medicine wards of the 12 voluntary hospitals. The responses to the questionnaire allowed to analyse the frequency of each factor and the strength of the statistical association between these factors and the CPG adherence.

**Results:** The factors retrieved by the qualitative analyses were classified into four categories: the CPG characteristics, the physician characteristics, the patient influence and the physician organisational environment. These analyses focused on the importance of the management, particularly the role of ward head and of the exchange between physicians.

**Conclusion:** Following step was to validate a tool of barriers to CPG adherence identification and to study the effectiveness of this *a priori* identification in improving CPG adherence.

1) F Saillour-Glénisson, P Michel. Individual and collective facilitators of and barriers to the use of clinical practice guidelines by physicians: a literature review. *Rev Epidemiol Sante Publique*. 2000; 51: 65-80.

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## Therapeutic rules, supports for local expertise

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**Objectives:** Therapeutic decisions in cancerology are no longer the product of local expertise, but of Evidence-Based Medicine (EBM), whose objective is to homogenize medical practices. The practitioners' expertise seems also to be relegated to the second plan behind the scientific studies, source of a good level of proof. The two studies presented here show that the local, individual and collective expertise, keeps all its place in the therapeutic decision.

**Methods:** Two studies on the therapeutic decision making using protocols have been carried out:

- a study of the collective decision making, in a Pluridisciplinary Committee (CCP). The dialogues were recorded and analyzed for 86 cases.

- a study of the individual decision making implying two stages. First, 19 practitioners verbally solved 14 problems of rules' application. Then, 13 of them were (individually) confronted with the solutions of their colleagues: this "contrastive approach" made it possible to *analyze in vitro* what occurs *in vivo* during the CCP.

**Results:**

- The decisions (individual and collective) are always made in reference to the protocols and not to previous cases, even when the specific characteristics of the patient don't allow a literal application. The rule is also adapted and not forsaken.

- The need for exceeding the protocolar framework neither leads to a uniform choice of solutions, nor to the return to a speciality-based practice. Thus, although the protocols constitute a reliable basis of thinking, the practitioners keep a consequent autonomy in the decision.

- The group decisions bring into play the collective expertise, the practitioners justifying their decisions the ones towards the others. The exchanges give rise to knowledge construction.

- The contrastive approach highlighted that the objective of the CCP consists in elaborating the space of possible and impossible solutions, and not in defining an optimal solution. Thus, it makes it possible to delimit the local kind's boundaries, inside whose the practitioners are free to choose, among the possible rules, those which seem the most adapted to the particular situations and to their own expertise.

**Conclusions:** Therapeutic rules constitute a reliable but insufficient reference, the practitioners being the only able ones to manage the diversity of the situations encountered in everyday practice. Moreover, the collective local expertise seems to be an essential resource for the decision since it leads to the construction and the development of local adaptation rules, which could be integrated in the evolution of therapeutic rules.

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## Evidence Cube Matrix: advancing the understanding and implementation of evidence based healthcare

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**Objectives:** The author will present and discuss a visually compelling and clear presentation of a 3-dimensional cube matrix constructed from numerous cubes that contain valid, relevant, and useful evidence that exist at each point of intersection of subpopulation, intervention, and outcome.

**Methods:** At the point-of-care interaction of a patient and provider when making one or a series of clinical decisions, the ideal healthcare delivery would provide individual evidence and data to support the decision and personal health strategy. Applied to a population, this would be mass customization. In the current reality, we cannot provide evidence and data specific to an individual (other than N-of-1 trial). So we compartmentalize the patient, the interventions, and the outcomes. The recent exponential growth of high quality evidence permits a subdivision of a patient population into subpopulations, permits examination of several alternative interventions, and permits presentation of numerous desirable and adverse outcomes. When considering an individual patient exploring a specific clinical decision, we should intersect the refined subpopulation that includes the patient, and the interventions that might be appropriate, and the outcomes that are critical and important. The patient's values and preferences and the clinician's expertise can be applied to this substrate of best evidence. Presentation and discussion of a visually compelling 3-dimensional cube matrix constructed from numerous cubes that contain valid, relevant, and useful evidence that exist at each point of intersection of subpopulation, intervention, and outcome. The creative design builds on existing principles of EBM, PICO, critical appraisal, guideline recommendations, grading, & point-of-care tools. A cube matrix can be constructed iteratively, saving developed cubes and adding cubes whenever a new patient scenario arises. A cube matrix can be constructed en masse and provided as a clinical decision support tool. Once constructed, a push method of incorporating relevant new evidence can be utilized to update.

**Results:** An example of the Evidence Cube Matrix for menopause and osteoporosis issues will be presented.

The ideal patient/provider interaction would allow the evidence, options, and patient values to be assessed at the point of care for collaborative, informed, evidence-based decisions.

**Conclusions:** Attendees will be able to immediately adopt and use this concept in teaching EBM and in developing dynamic evidence for use by providers and patients at the point-of-care.

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## When context matters more than guidelines in ethical decision making: a qualitative study of how doctors experience withdrawal of treatment in neonatal intensive care units in India

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**Background:** Studies from Western countries show that doctors who experience decisions about the withdrawal of treatment of extreme premature and/or sick newborns are concerned about unpredictable medical factors and prognoses, parent autonomy, the child's suffering and future quality of life and to some extent resources. If they exist, the content of guidelines varies, and so do the interpretation and implementation. We know less about how this is experienced in other economic, cultural, religious and educational contexts.

**Objectives:** The aim of this study is to explore and describe how Indian doctors experience ethical dilemmas concerning the withdrawal of treatment among critically sick and/or premature neonates.

**Method:** Design: qualitative data from interviews analysed according to Giorgi's phenomenological approach. Subjects: 14 doctors with various levels of neonatal experience were recruited from two state-owned neonatal intensive care units in India. Main outcome measures: descriptions reflecting the nature of ethical dilemmas and how they are experienced.

**Results:** All doctors reported situations where the question of withdrawal of treatment was experienced as the worst part of their job. They were especially concerned about non-medical considerations that do not feature in current treatment guidelines.

The informants stressed their sense of responsibility in situations where they knew that their decisions would influence a family's economy and reputation, availability of food and education for siblings, other children's access to equipment in the unit, and the use of resources in an underprivileged population. Sometimes resource scarcity, normally shortage of ventilators, forced them to make decisions about which babies would get the chance to live. On the one hand the doctors are not able to follow the guideline: to provide best treatment for all. On the other hand, if they follow the guidelines and start treatment of an extreme premature baby, the law against euthanasia prohibits them from stopping treatment or from giving the treatment to a child that would benefit more. This is experienced as "unethical" and some choose to act against the law, while others leave it to parents or to God to decide. The decision gets even more distorted when the gender of the child influences parents' considerations.

**Conclusion:** While Western doctors seem to focus on the rights and problems of the individual child, Indian doctors tend to refer to contextual consequences; for other children, parents and society. Further research is needed on ethical dilemmas and guideline-implementation in different economic, cultural and religious contexts. Development of guidelines on how to prioritize and cope with insufficient resources is also required.

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## Case-based e-learning to support guideline-implementation. Diagnosing and treating virtual patients referring to evidence-based recommendations

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**Objectives:** Putting evidence into practice remains a major challenge for the German health-system. Although the number of high-quality evidence-based guidelines for physicians is constantly increasing they are still insufficiently used and accepted by German physicians. Different strategies for a better guideline-implementation have been evaluated such as: Publishing short-versions of guidelines as articles in Journals, translating them into non-medical language (Patient-guidelines) or transforming their key-messages into e-learning-contents. Experienced in problem-based as well as e-learning Witten/Herdecke University evaluates a new didactic approach: Case-based e-learning.

**Methods:** Seven case-based learning-modules were developed. They represent careers of virtual patients as they occur in medical practice with conditions like Dementia, Hypertension or Asthma. Their key messages refer to a corresponding evidence-based guideline. Two of these learning-modules were tested in a pilot study by 13 physicians evaluating ten topics. Results were displayed on a five point Likert-scale.

**Results:** The case-based learning-modules were well accepted by the participants. More than 85 percent rated this kind of learning/knowledge-transfer excellent or good. 90 percent would choose this new didactic approach again. However, participants would have appreciated more media, more options for interaction and more proximity to clinical practice.

Based on many useful comments of the testing physicians all online case-based learning-modules were customized and improved.

**Conclusions:** Evidence- and case-based e-learning might be one additional instrument to support guideline-Implementation in the future. Testing physicians appreciated Witten/Herdecke Universities realisation of this concept but suggested more "multi-media", "interaction" and proximity to clinical practice. Further research is required to learn about the influence of different e-learning-concepts on daily medical practice.

## P-54

## e-Health decision-making for Crohn's disease: getting evidence into practice

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**Objectives:** Most studies using criteria developed by the RAND appropriateness method have evaluated the quality of care retrospectively, with all the pitfalls inherent in retrospective review of medical records. The high degree of detail of the criteria developed by this method, though conferring clinical specificity, renders them impracticable for those called upon to decide on the appropriateness of care. The detailed specificity is thus both the strength of this method, in terms of coverage and theoretical acceptability, and its weakness for prospective implementation in the clinical setting. To address this problem of the prospective use of RAND criteria of appropriateness, we developed an interactive web site using data from the recent European Panel on the Appropriateness of Crohn's Disease Therapy (EPACT).

**Methods:** The RAND method was used to develop criteria for the appropriateness of treatment for Crohn's disease (CD). In a modified Delphi approach, 15 experts from 12 European countries, representing gastroenterology, general practice and general surgery, rated on a 9-point scale the appropriateness of various treatments for 569 clinical scenarios, grouped in 10 major categories. Each scenario was formed of a unique constellation of up to 4 clinical variables with 2-9 levels each. Following that, we developed an interactive, World Wide Web based, computer-assisted medical decision tool, to help determine, prospectively, the appropriateness of treatment for CD.

**Results:** The newly developed web site ([www.epact.ch](http://www.epact.ch)) allows physicians to enter clinically specific data corresponding to the situation of their patient, by answering no more than 5 questions. They receive, on-line, the results of the expert panel vote on the appropriateness of treatment choices for a hypothetical patient presenting with the same or a similar clinical picture. In addition, the site provides direct links to abstracts of related articles from the National Library of Medicine PUBMED database, to recent state-of-the literature reviews (Digestion 1:2005), and to precise definitions agreed upon by the expert panel.

**Conclusion:** The newly-developed web site which allows easy access to detailed appropriateness criteria, now provides, for the first time, the opportunity to move from the retrospective evaluation of the appropriateness of treatment of Crohn's disease to its prospective improvement. Its usefulness now requires field testing.

## P-55

## National decision support database based on computer-readable guidelines and using structured data from electronic patient records

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**Objectives:** The aim of the project was to establish a comprehensive national decision support database and provide it as a free web service for electronic patient record suppliers.

**Methods:** As part of a national health reform, Finland has defined the key data elements of the electronic patient record. The data are adjusted to meet also the needs of a comprehensive decision support system. The decision support database was established by the national Current Care guideline organization. It contains descriptions and evidence for decision support functions, and executable scripts written in JavaScript or Java. A publicly available web service software module is used for executing the scripts. For more details see [www.kaypahoito.fi/decisionsupport/decisionsupport.htm](http://www.kaypahoito.fi/decisionsupport/decisionsupport.htm).

**Results:** The comprehensive decision support system will cover all elements of clinical decision making both in primary and secondary care. The project was welcomed by practicing physicians, and it has received national funding. The script database has been constructed by an editorial team consisting of 4 physicians who coordinate the work of script authors. The script descriptions are written in plain English, and the functions of the scripts and the data they require are described clearly. The evidence is stated clearly and quantitatively, and links are made to evidence summaries and guidelines at [www.ebm-guidelines.com](http://www.ebm-guidelines.com). Potential harms are described separately, because the ethical challenges of implementing automated decision support resemble those of population screening. The output (reminders) of the scripts is in Finnish and English languages, and other languages can be easily added. Authoring, programming and testing one script takes a total of one day of the the author's and programmer's time.

A common web-based tool for obtaining referee comments was developed for both Current Care national guidelines and for the decision support database. The first scripts were produced about diabetes and cardiovascular risk factors. Calculators such as the SCORE calculator for estimating cardiovascular risk were included. The testing of the scripts was started within a diabetes management system that provided diagnoses, medications, laboratory results, blood pressure readings, weight, and height to be processed by the scripts. Qualitative research on the usability and acceptability of the system has been started, and a randomized intervention study is being planned to assess the impact of the system on health personnel performance and patient outcomes.

**Conclusions:** A comprehensive national decision support database can be produced if supported by practicing physicians, a national guideline organization and standardization of data in electronic patient records.

## P-56

## From guidelines to electronic health care support: clinicians' perspectives

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**Objectives:** Effective guideline implementation is time and resource-consuming. Strategies that are thought to be feasible are usually ineffective. We performed a time series analysis to test the feasibility and effects of CPG implementation using an algorithmic clinical pathway, academic detailing and the first steps of electronic implementation into a commercial hospital information system in the routine setting.

**Methods:** A clinical pathway for patients with proximal femoral fracture was developed at a university hospital on the basis of existing CPGs, a problem-oriented review of the literature, a forced field analysis and consensus of all disciplines and professions involved in the care process. The complete pathway included the algorithm, additional checklists to specify decision and action statements and background information. Three patient cohorts with radiologically confirmed proximal femoral fracture were consecutively recruited: prior to pathway development (n=168), after introduction of the pathway by publication (print version and intranet version) and academic detailing (n=85), after introduction of an electronic admission record (n=89). From the latter cohort 12 patients were excluded from further evaluation (drop-out rate 12.4%). Relevant endpoints for pre-post comparison were those with a potential for improvement identified in the first cohort. Staff was interviewed after the evaluation.

**Results:** Overall improvements were seen regarding documentation of the side of the fracture ( $\chi^2_6 = 21.069$ ;  $p=0.002$ ) in the admission document, time from hospital admission to first antithrombotic medication ( $F_{2,204} = 20.933$ ;  $p<0.001$ ) and time from admission to operation ( $F_{2,204} = 5.360$ ;  $p=0.005$ ). Detailed prescription of medication including doses and application scheme, documentation of the presence or absence of relevant allergies changed for the worse in the third cohort. The electronic record was generally accepted but documentation was felt to be too time consuming. Clinicians wished information documented once to be carried on to exclude redundant work and available were ever needed in the routine workflow, e.g. for order-entry, DRG-coding, discharge letters and quality assurance. Electronic reminders, e.g. for inadequate medication prescription, should be used where appropriate. The standard algorithm format of the pathway was seen as the communicational basis between information technologists and clinicians.

**Conclusions:** Academic detailing improved adherence to CPG recommendations but was extremely time-consuming. Computer-linked pathways are no magic bullet but attractive if clinicians' demands are met. In practice, they will be put to test for the expenditure of time they require, for demand-oriented solutions to facilitate daily routine and for intelligent data management. Preparing commercial hospital information systems to overcome partial solutions with extra programmes remains a challenge.

## P-57

## The national programme for disease management guidelines in Germany

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**Objectives:** The common rationale for the introduction of disease management programmes (DMPs) is concern about quality of care and cost containment. In Germany, some characteristics of the health care system facilitated their legislation: free choice among non-for-profit sickness funds, compensation between sickness funds aiming to narrow differences between members' incomes and risk profiles and "sectorisation" of health care with a perceived gap between primary, ambulatory specialist and inpatient care. DMPs should be developed from high-quality Clinical Practice Guidelines (CPGs). CPGs often cover specific clinical circumstances but not the optimal clinical path of the patient along all health care sectors from prevention to rehabilitation. The national programme for disease management guidelines (NDMG) was therefore launched under the auspices of the German Medical Association (GMA), the Association of the Scientific Medical Societies (AWMF) and the National Association of Statutory Health Insurance Physicians (NASHIP) to provide the conceptual basis for DMP. The Agency for Quality in Medicine (AquMed) accounts for editing and co-ordinating the NDMG development process. The main objective of the programme is the co-ordination and implementation of key recommendations for prioritised healthcare issues.

**Methods:** Key steps of the NDMG development process are the search for CPGs and evidence-based recommendations by the Scientific Medical Societies, the German Drug Commission of the Medical Profession and other authors as well as accurate assembling of the NDMG development group involving representatives from all German CPG groups identified by the search, from all sectors of care and patients. Systematic literature review is performed for relevant clinical questions not adequately addressed in the source documents. In NDMGs the interfaces between both the different medical disciplines and areas of care are defined and organised in terms of content. The crucial step is consensus development (Nominal Group plus Delphi-Technique). The final document consists of a short version summarising key healthcare recommendations explicitly linked to grades of recommendation, considerations for guideline-based quality management and clinical performance measures and a free internet-based long version linking to detailed information, underlying CPGs and original articles, implementation tools, a lay version and the method report. This document is approved by the bodies responsible for the NDMG programme.

**Results and Conclusions:** The first NDMG (Asthma) was issued in June 2005. Satisfaction with the document, the web-based implementation tool and with the development process was very high among all participants. The NDMG represents the broadest consensus so far on optimal care for Asthma patients in Germany and will now have to be evaluated in practice.

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## Experiences with “living guidelines” in the Netherlands

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**Objectives:** A ‘living guideline’ is a guideline that is updated frequently, based on systematic monitoring of the evidence, data from clinical practice and comments from guideline users. The aim is to provide healthcare professionals with actual evidence-based information on optimal health care. This is particularly relevant in areas with rapidly evolving knowledge.

**Methods:** We piloted the concept of ‘living guidelines’ in two guidelines: ‘treatment of breast cancer’ and ‘antiretroviral treatment (HIV/AIDS)’. In this abstract we will describe our experiences with the breast cancer guideline. Regional tumour working groups provided the guideline working group with problems in applying the latest version of the guideline in clinical practice. The guideline working group determined whether there was a need to formulate new clinical questions that should be answered. Literature searches were updated and the recommendations were modified when there was new evidence for improved patient care. The new draft of the guideline was sent for comments to the scientific associations of medical specialists and other stakeholders, such as patient organisations. Based on these comments, the guideline was refined. The final step was authorisation of the guideline by the most relevant organisations involved.

**Results:** The first Dutch evidence-based guideline on the treatment of breast cancer was published in 2002. In spring 2004 we started the update procedure, which resulted in the release of the updated guideline in December 2004. In 2005 we started the second update round. The next version was developed between February and April 2005 and then sent out for comments. We experienced some problems with the reproducibility of the literature searches, as not all of them were well-documented. In 2005, we noticed some lassitude with some members of the working group due to reiterative discussions. The management of the chairs was crucial for the success of the guideline process. We received positive feedback from the external comment round. The authorisation procedure was hard, since the organisations only had a few board meetings a year.

**Conclusions:** Efficient application of the concept of ‘living guidelines’ requires a well-documented evidence-based guideline, including well-described search strategies, selecting criteria, and appraisal methods. It is important to inform the scientific organisations timely about the schedule in order to prevent any delay of the authorisation process. We became aware of the huge efforts needed by the working group members. Next year, we consider delegating some of the work to professional reviewers, so the workload for the working group is limited.

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## Adaptation of European guidelines on cardiovascular disease prevention in the Dutch context

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**Objectives:** To develop an evidence-based guideline on cardiovascular risk management in the Netherlands. The European guideline on cardiovascular disease (CVD) prevention in clinical practice, published in 2003, was used in the process of guideline development in order to save time and efforts.

**Methods:** A multidisciplinary guideline development group was composed, including clinical experts, epidemiologists and a health economist. The group formulated specific clinical questions that needed to be answered by the guideline. The European guideline (776 references), which had sufficient quality according to the AGREE instrument, provided most of the evidence. For some questions, additional literature searches were performed. The evidence and the applicability of the recommendations of the European guideline were discussed in the working group. Based on cost-effectiveness analyses and feasibility considerations, the group adapted the European guideline and formulated recommendations for Dutch clinical practice.

**Results:** Considering the impact on resources, the working group decided to promote case finding of individuals with a potential risk of  $\geq 10\%$  for developing a fatal CVD event, in contrast to the European guideline that set the threshold at 5%. Patients at risk are those with established CVD or diabetes mellitus, smoking men  $> 50$  year, smoking women  $> 60$  year and patients known with raised blood pressure  $\geq 140/90$  mmHg or cholesterol  $\geq 6,5$  mmol/l. In these cases treatment with antihypertensive drugs and/or statins can be considered. The formulation of the recommendations was complicated by concerns about the implementation, for instance lack of staff in primary health care, and fear of medicalisation, whereas patient organisations emphasised the need of screening at a lower risk level. Thus, the process of guideline development took more time, which counterbalanced the potential gain of adapting an existing guideline compared to guideline development de novo. On the other hand, the debate raised the awareness of the importance of implementation, which enhanced the quality of the guideline and its acceptance among the target users.

**Conclusions:** Adaptation of guidelines could save time and efforts when the existing guideline fits well in the own context. If there is a gap of applicability, extensive discussions are still needed. This could affect the efficiency of guideline development, but may also facilitate the implementation of the guideline.

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## Termination of pregnancy: medical & ethical aspects from a Malaysian perspective

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**Introduction:** The World Health Organization estimates that as many as 20 million unsafe abortions take place each year with complications causing nearly 80,000 deaths i.e. 13% of the maternal deaths annually. In Malaysia, complications of unsafe abortion have contributed to maternal deaths. The number of maternal deaths to abortions was 33 between 1991 and 1996 under the Confidential Enquiries into Maternal deaths. However, many abortion-related deaths are still unreported. Currently, about 63% of countries in the world permit abortion, 25% prohibit abortion, except when pregnancy threatens the woman's life, and 12% of countries permit abortion on broader medical grounds; sometimes for genetic or judicial indications such as rape or incest. In Malaysia, induced abortion is illegal under Act 574 of the Penal Code (revised-1997). However, it has been reformed, allowing a doctor to perform induced abortion if she or he believes, in good faith, that continuing the pregnancy would endanger the patient's life or cause deleterious physical or mental injury or harm. In Malaysia, women generally do not know what services are available, whether they are eligible for them or where to get them. Health workers themselves may not be clear about what the law allows and may not be trained to offer abortion-related care.

**Objectives:** The aim of the guideline is to assist physicians to adopt a uniform approach when dealing with termination of pregnancy (TOP), and eventually to ensure quality of care, accessibility, availability and affordability for women with unwanted pregnancies or pregnant women with obstetric/medical problems who require TOP.

**Methods:** We searched for existing evidence for developing evidence-based guidelines and distilled an evidence-based process for guideline development. Existing guidelines were identified and appraised, then adapted to create a locally appropriate evidence-based practice guideline for TOP.

**Result:** We identified three guidelines. Adaptation involved changes to layout, content and the format to reflect local practice. Further literature search was carried out from the period of January 2000 to March 2005. The best available evidence was used to form and support the recommendations.

**Conclusion:** Such guidelines for health service professionals are valuable for ensuring equity of access and quality of care. The Health Technology Assessment unit of Ministry of Health, Malaysia has prepared guidelines for organization of services, information for women, pre-abortion assessment, abortion procedures, management of complications and after-care.

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## Guideline adaptation to cultural/local contexts: towards a computer-assisted approach

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**Objectives:** A relevant obstacle to the dissemination of clinical guidelines (CG) is the gap between the generality of CGs and the peculiarities of the local contexts of application. In particular, international CGs should be adapted to cope with local (e.g., country and/or religion based) culture, and with the peculiarities of specific contexts of applications (e.g., hospital resource availability). Moreover, a continuous work of adaptation is needed in order to keep CGs up-to-date (e.g., to deal with new therapies). The main goal of our current work is that of extending GLARE (Guideline Acquisition, Representation and Execution) in order to face such needs. GLARE is the domain-independent computer-based guideline manager (CGM) built in a 8-year cooperation between Azienda Ospedaliera S. Giovanni Battista in Turin (the third largest hospital in Italy) and Università del Piemonte Orientale in Alessandria.

**Methods:** First, we have pointed out some of the facilities to be provided by a CGM to deal with adaptation, and, in particular: (1) management of *authoring*, distinguishing between user-physicians and physicians who are responsible to validate CGs (the former can propose updates to CGs, while the latter have the responsibility to accept/refuse them); (2) management of the *times* of proposal and acceptance/refusal of each piece of knowledge in the CGs. We then designed a *data model* supporting such facilities, and a *query language* to check the changes to the original guidelines.

**Results:** On the basis of our extended data model, the adaptation proposals can be easily stored together with the authors and the proposal/acceptance times. The query language supports queries about the "history" of CGs (e.g., to check which was the status of a CG –or of a specific part of it- in January 2005, and which are the adaptation proposals about such a guideline accepted between January and now – and, possibly, who made such proposals).

**Conclusions:** The GLARE experience shows that computer-based approaches may simplify the process of tailoring a CG to local needs. In particular, while the computer-based acquisition interface makes it easier the task of modifying a CG, the underlying data model can provide an automatic support for managing the history of the CGs, storing the dates of the changes and the authors who managed the adaptation process.

P-62

## Problems concerning the adaptation and implementation of an international guideline in a national context - a Norwegian experience adapting a NICE guideline on antenatal care

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**Objectives:** The aim of this evaluation is improve techniques for adapting international guidelines into a local or national context, and to provide lessons learned from experience in Norway.

**Methods:** The NICE guideline number 6 from 2003 on Antenatal Care – Routine care for the healthy pregnant woman, was used as the main basis for developing a New Norwegian guideline. The development was initiated and financed by the Norwegian Directorate for Health and Social Affairs. The development group was staffed, and worked according to the current Norwegian Guideline for guidelines. The development group delivered a first draft largely based on the NICE guideline. This draft was on public hearing and the final guideline is based on several inputs from stakeholders. The final guideline is being disseminated. Production of quick reference guides is on going. By examining the experiences in the development process we have tried to identify critical success factors for adaptation and implementation.

**Results:** Several important challenges were identified. First, the issues related to gaining credibility for the guideline within the wide clinical community. Concern on how to identify and handle scientific evidence, in order to change practice, is perhaps the single most important issue. From our experience the specialists within the development group had no such concerns after a thorough introduction to the methodology, and the scepticism was strongest amongst those who knew the least about the methodology. The “not invented here” syndrome may be a strong factor to overcome. Secondly, issues related to handling arguments from official authorities triggered by political or value-based questions. If the guideline development process divert from the explicit methodology because the sponsor of the guideline does not like the conclusions, this does not strengthen the credibility of the total guideline.

**Conclusions:** If value-based recommendations are to be made, they must be explicitly stated, otherwise they may seriously affect the credibility of the guideline. Hence, the two issues described interact to affect the total credibility of the guideline.

The questions are then: How can we gain confidence in the handling of evidence and formulation of recommendations amongst the general clinical community? Can any guideline development process be totally free of the agendas of the initiator or sponsor? How can we ensure that guidelines are produced with maximal integrity?

P-63

## Clinical guidelines and HTA reports as source of appraised evidence - a different approach in guideline adaptation

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**Objectives:** The G-I-N questionnaire has just shown that guideline adaptation is judged as one of the most important topics in the near future. The usual way of adaptation is a "one to one" adaptation in which an existing guideline is used as basis which is modified and supplemented due to the special needs of the national health care system respectively the aims of the guideline development group. Within the German programme on National Disease Management Guidelines we have also developed other techniques of using appraised evidence, especially guidelines as „databases" for guideline development. The process of answering key question on the management of suicide by using international guidelines and HTA reports as sources of appraised evidence is described as an example.

**Methods:** In preparation of the development of a National Disease Management Guideline on Depression 4 key questions concerning suicide, especially the effectiveness of assessment instruments were formulated by an expert group. In advance a hierarchy of appraised evidence was constructed by the group, in which evidence based guidelines are defined as preferred source of appraised evidence, followed by Health Technology Assessment reports and systematic reviews. A systematic search for evidence-based clinical practice guidelines (CPGs) on depression and suicide was done in the G-I-N database, Medline and the National Guideline Clearinghouse. 11 international guidelines on the topic fulfilling our predefined methodological inclusion criteria were identified. If possible recommendations concerning our key questions were extracted from the guidelines by two independent reviewers. For two of the questions in a second step the information was clustered on topics (eg recommended interventions or risk factors on suicide) and ranked according to the number of guidelines which recommended a certain intervention or named a certain risk factor. Our hypothesis was that the more often a certain recommendation is given or a certain risk factor is named, the more valid the information is.

**Results:** All key questions could be answered sufficiently with varying accordance within the used guidelines. The extraction of the information has to be done by two independent persons, as most guidelines are not well structured and very seldom give information on the underlying questions. It was not possible to only rely on graded recommendations as for questions on diagnostic topics hardly any graded recommendations are given by the CPGs. Also the different grading schemes used by the guideline groups made it impossible to compare and to rely on the grading. In a next step the robustness of our results has to be proven by using HTA reports as the next level in the hierarchy of appraised evidence and see whether our results will change.

**Conclusion:** The way of using CPGs for guideline development by answering key questions by the systematic extraction of the recommendations and "facts" given in international guidelines seems a good alternative to the usual way of guideline adaptation. It makes use of the strength of different guidelines and avoids the weaknesses of certain guidelines to be carried on through numerous CPGs and thereby Health Care Systems. Concerning the validity of our results "further studies are needed".

P-64

## Prerequisites for guideline adaptation

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**Objectives:** Using chronic obstructive pulmonary disease (COPD) as a case example, we describe our experience with the process of guideline adaptation to the German health care system. We reflect on our methodological approach in order to identify essential of clinical practice guidelines to serve as a basis for the process.

**Methods:** For the National Disease Management Guideline on COPD the guideline by the "Deutsche Atemwegsliga" served as a starting point. It resembles the one from the **G**lobal Initiative for Chronic **O**bstructive **L**ung **D**isease (GOLD), which we used as additional basis. The Guideline on Chronic Obstructive Pulmonary Disease from the British National Institute of Clinical Excellence (NICE) was used as "control guideline". In a first step the key topics to be addressed by the guideline were defined by a multidisciplinary panel of experts from all health care sectors involved in the care of COPD patients. Recommendations were then selected from the GOLD guideline and were compared with the recommendations given by NICE. All selected recommendations were discussed in the light of the underlying body of evidence and their applicability to the German Health Care System. In a further step additional respectively special needs for recommendations for the German Health Care System were identified. Corresponding recommendations were formulated on the basis of a systematic search and critical appraisal of the literature.

**Results:** The process resulted in a set of 43 recommendations which will be graded in a consensus meeting using a formal consensus technique. The overwhelming majority of clinical recommendations could be adapted in a straightforward process due to the transparent presentation of the underlying evidence. Particularly the NICE guideline was a very helpful source, due to the precise formulation of key questions and the reproducible presentation of the discussion of the evidence.

**Conclusions:** The use of two evidence-based guidelines on COPD as reference and control guidelines within the process of guideline "adaptation" was a reasonable alternative to a development from scratch. Prerequisites were the high quality standard of the existing evidence-based guidelines and especially their transparent and conclusive presentation of key questions and the appraisal of the literature. In case of adaptation the presentation and documentation of the discussions of the evidence in the primary guideline development group is more important than the resulting grade of recommendation. The prerequisites for guidelines to be adopted differ from the ones which are crucial for guideline implementation and their use in routine clinical care.

P-65

## Adaptation of guidelines: consequences for the grade of recommendation

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**Objective:** Developing guidelines by adaptation is one possibility to avoid cost and time in guideline development. So far there is no standardized way and only few reports about the advantages and disadvantages of certain processes have been published. Within the German programme for the National Disease Management Guidelines a guideline on Asthma was developed by adaptation of the "BTS Guideline", the Guideline on Asthma by the British Thoracic Society and the Scottish Intercollegiate Guideline Network. Experiences with the adaptation with main focus on consequences for the grading process are described.

**Methods:** After selecting the key topics and their corresponding recommendations by a multidisciplinary guideline development group, all recommendations were discussed on the basis of the underlying evidence, the evidence statements given by the BTS Guideline and especially the applicability to the German Health Care System. All recommendations were regraded by the expert panel using a nominal group technique. Most of the cited studies, on which the recommendations of the BTS Guideline are based were well known to the experts, nevertheless in cases where recommendations were taken from the BTS no systematic critical appraisal of the underlying original literature was done by the expert group.

**Results:** 60 recommendations from the source guideline were adapted and regraded. The regrading process consisted in the transfer from the 5 step grading scheme used by the BTS Group to the 3 step grading scheme used within the German Guideline Programme and consideration of the applicability to the German Health Care System. The process of regrading resulted in substantial upgrading of the original recommendations. As an example 16 Grade A recommendations in the BTS-Guideline versus 22 Grade A recommendations in the German guideline. This trend can be shown for all grading categories.

**Conclusions:** The upgrading might partially be caused by the use of different grading schemes. More important might be the greater distance to the underlying studies which results in an overestimation of the strength of the body of evidence. This hypothesis and the resulting consequences for further guideline adaptation projects has to be discussed with other guideline development groups and to be proven in further projects.

P-66

## Adaptation of an evidence based guideline on the treatment of psoriasis vulgaris

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**Objectives:** The scope of this presentation is to describe the adaptation process of an existing Dutch clinical practice guideline (CPG) on the treatment of psoriasis vulgaris in order to develop a national guideline for the German health care system. The advantages and disadvantages of this procedure will be discussed.

**Methods:** A systematic guideline search by using the G.I.N. database was performed, completed by an additional free search using other sources like www.leitlinien.de. The chosen Dutch guideline was completely translated and further on assessed by a modified version of the AGREE instrument. The structure of the German CPG were defined and compared to the Dutch CPG in order to transfer, to adapt or to cancel parts of the existing guideline.

**Results:** The search for existing guidelines on the treatment of psoriasis identified 4 CPGs published until 2003. The Dutch evidence based CPG was chosen as the most appropriate guideline for adaptation. Because of the decision to include topical therapies in the German CPG the inclusion and exclusion criteria as well as the critical appraisal sheet had to be changed. This led to the fact, that the systematic research and the extraction of the relevant literature of the Dutch CPG could not be accepted and needed to be redone. Due to the changed exclusion criteria just 17 of the 37 selected studies of the Dutch CPG remained included. 13 of these studies were assessed with the same evidence level, 4 were assessed discordantly (preliminary results).

**Conclusion:** The adaptation of the psoriasis guideline can be considered as a big challenge. Several reasons are responsible for difficulties of taking over the results of the Dutch guideline group. The key questions (definition of disease, target population) were not completely congruent and the selection process of the included studies has not been transparent enough for a complete transfer into our CPG. This constellation led to further additional work so that finally the benefit of using the existing CPG was clearly reduced. Beside this, an adaptation from the Dutch to the German health care system has to be considered. Efforts to harmonize the strategy in developing CPGs worldwide by building up international networks may be able to reduce these problems. To achieve this purpose a standardized procedure for searching and classifying evidence and harmonization of scopes of CPGs may be helpful, not only for an adaptation but as well for updating existing national CPGs.

## P-67

## Transnational adaptation of guidelines: development of a German guideline for early rheumatoid arthritis on the basis of a pre-existing Scottish guideline: a case study

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**Background:** The development of high quality guidelines (GL) demand a high input of human and financial resources. As evidence-based (eb) guidelines in different countries supposedly use the same evidence there is an increasing perception that sharing some of the work might speed up the process and reduce cost.

**Objectives:** To empirically explore a methodology of translating and adopting a guideline to a country with a different health care setting, language and culture; to critically review the process and to draw conclusions for further guideline adaptations.

**Methods:** A recently published evidence-based guideline "Management of Early Rheumatoid Arthritis" of the Scottish Intercollegiate Guidelines Network SIGN (published 12/2000) was identified and permission granted to use their work as a blueprint. A multi-disciplinary team agreed on a systematic and transparent approach (AquMed guideline manual <http://www.leitlinien.de>). The guideline was translated and rules for modification and adaptation were established: a) update where new evidence has been generated; b) change recommendations where evidence was interpreted differently; c) complement where the provision of health care is different in the two health care systems. All studies linked to recommendations were evaluated on content, hierarchy of evidence and consistency between evidence level and the resulting recommendation. The classification into levels of evidence and strength of recommendations followed the SIGN scheme ([www.sign.ac.uk](http://www.sign.ac.uk)).

**Results:** The translated guideline was divided into paragraphs, each of which was commented by the individual members of the guideline group (n=10) on whether to accept, remove or change it. For 23 / 81 paragraphs (28%), there was agreement about a perceived need for change, most frequently for appearance of new scientific evidence, insufficient emphasis of the source guideline on the *early* stages of RA, and cultural differences in the non-pharmacological management such as balneotherapy or diet. A comprehensive literature update followed the strategy shared by the SIGN group and was complemented for additional topics (up to 12/2002).

The table compares the two guidelines:

Strength of recommendation	Guideline of the German Society of Rheumatology	SIGN Guideline
A	5	0
B	4	10
C	0	2
D	0	2
Good clinical practice	18	24
<b>Total</b>	<b>27</b>	<b>38</b>

The German group did not take on 19 / 38 SIGN recommendations, rather it came up with 12 new recommendations. Ten recommendations were of identical content and identical strengths of recommendation in both guidelines, 5 recommendations had identical content but a different strength of recommendation. The German guideline is based on 178 publications, 96 of which overlap with the 202 publications of the Scottish Guideline. 82 new publications were added. We supplemented the guideline with additional material such as evidence tables for disease modifying drugs; pre-existing drug surveillance charts or a German questionnaire for functional assessment. The development lasted more than 1 1/2 years.

**Conclusion:** Translation and adaptation of a guideline is feasible, but goes beyond simple translation. Despite the pre-existing Scottish guideline, the process required considerable work due to a fast evolving evidence base, different interpretations of the data and value judgments of the group. Increasing transparency of the underlying evidence by using standardised evidence tables and a more explicit method on how to arrive to certain judgements (such as the GRADE approach) can improve the process.

## P-68

# Adapting clinical practice guidelines in Chilean primary care

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**Objectives:** The aim of this study was to adapt clinical practice guidelines in relevant clinical areas to be used in Chilean primary care organisations.

**Methods:** The adaptation process was developed following a previously published framework, including the following stages: i) identification of relevant clinical areas; ii) setting up a local interdisciplinary guideline adaptation group; iii) searching and retrieval of guidelines in the identified clinical areas in PubMed®, guideline clearinghouses and a number of guideline development group websites; iv) critical appraisal of the guidelines using the AGREE instrument (each guideline was appraised by two evaluators); v) assessment of the clinical content of recommendations in 'high' quality guidelines analysing each recommendation and its level of supporting evidence; vi) adaptation of guidelines for local use taking into account the context in which guidelines will be implemented; vii) external review of the proposed local guideline using a two-round e-mail Delphi method; and viii) final writing of local guidelines.

**Results:** Two relevant clinical areas were selected: depression and diabetes mellitus 2. A local interdisciplinary guideline adaptation group was set up for each clinical area composed of general practitioners, nurses, and clinical psychologists. The search strategy retrieved 9 depression and 12 diabetes guidelines. Each one of them was critically appraised and this resulted in one high quality guideline for depression and two for diabetes. The content assessment of the high quality guidelines resulted in 60 recommendations for depression and 56 for diabetes. Both lists of recommendations have been sent by e-mail to a group of external reviewers to evaluate their validity and applicability. We are currently developing a pilot project for the implementation of these guidelines using a multifaceted intervention in a group of Chilean primary care organisations.

**Conclusions:** Clinical practice guidelines are developed to facilitate the use of evidence in practice. However, health systems and organisations with limited resources cannot afford the daunting task of guideline development. Therefore, a "quick-and-dirty" adaptation process could be the way forward to get research findings into practice in many health care organisations. We have successfully used a previously described framework to evaluate and adapt clinical practice guidelines for two conditions in Chilean primary care, in a context of limited resources.

## P-69

# Chilean primary care guidelines: a critical appraisal

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**Objectives:** The aim of this study was to assess the quality of Chilean primary care guidelines, identifying factors associated with high quality guidelines.

**Methods:** The design of the study was a cross-sectional survey of Chilean primary care guidelines published and disseminated using any strategy between 1999 and 2004. Guidelines were located through: i) searches in PubMed®; guideline clearinghouses or guideline development groups websites; Chilean health authorities, Ministry of health, and Medical Scientific Societies websites; ii) manual searches in printed publications of national and regional health authorities and scientific organisations; iii) interviews with key informants in the respective organisations, and iv) information collected from local experts. Retrieved references were reviewed by two of the authors excluding those not corresponding with our operational definition of clinical practice guidelines. Disagreements were solved by discussion and consensus. Each selected guideline was assessed independently by two trained evaluators using the AGREE instrument following standardised instructions. Disagreements were solved by discussion and consensus and by a third evaluator in specific cases. Information about explanatory variables was collected in a standardised data abstraction form for each guideline by one of the authors. Evaluators' concordance was evaluated using standard techniques described in the specialized literature. Descriptive statistics for each dimension of the AGREE instrument were calculated for the whole group of guidelines and for each group according to the explanatory variables. The comparison between different groups was carried out using analysis of variance.

**Results:** We retrieved a total of 33 guidelines: 15 from a manual and 18 from an electronic source. Twenty four of them did not match our definition of clinical practice guideline; therefore only nine were included in the final assessment. Six of them (66%) were classified as not recommendable according to the AGREE instrument. There were important differences in the mean scores obtained in each dimension (scope and purpose, stakeholder involvement, rigour of development, clarity and presentation, application and editorial independence) for the whole group of assessed guidelines. However, no significant differences in scores were found when analysed by year of development.

**Conclusion:** Clinical practice guidelines are developed to facilitate the use of evidence in practice. The Chilean health system has encouraged the development of clinical guidelines in a number of areas including primary care. However, patients will not achieve the expected benefits if guidelines are poorly developed notwithstanding how they are implemented. Our results suggest that recent efforts in primary care guideline development are misdirected and that a reformulation of a programme of the current methodology will be necessary in order to generate high quality guidelines.

## P-70

## Are occupational practice guidelines AGREE-able?

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**Objective:** Evaluating acceptance, validity, reliability and feasibility of the AGREE instrument to assess the quality of practice guidelines for occupational health professionals.

**Methods:** Using the AGREE instrument 30 occupational health experts in the field of practice guideline development, EBM, quality assurance and implementation of research findings appraised in total 22 occupational practice guidelines (OPGs). These 22 OPGs dealt with a broad array of occupational health problems. The documents originated from different organisations and formed a broad selection of available documents intended to be used as OPG. All the recent guidelines of the NVAB and STECR (Expert Reintegration Studies Centre) were included. In addition to the AGREE score, appraisers were also asked to score the relevance of each AGREE item, how 'guideline-like' they found the document, how easily they could find the necessary information and what their appreciation of the AGREE criteria was. Most OPGs were scored independently by 4 appraisers.

**Results:** 22 OPGs resulted in 132 mean domain scores. Only 20.5% was higher than 66.7 (which could be considered as acceptable). Some items scored low for most OPGs, e.g. *'the patients' views and preferences have been sought'*. OPGs often lacked an explicit procedure for updating.

Internal consistency for most domains was good (Cronbachs alpha: 0.80-0.92). Appraisers often disagreed on item scores. Interrater reliability was moderate for 4 appraisers. Correlation coefficients between the appraisers domain scores and overall assessment scores were high: 0.57-0.70.

Appraisers considered all of the AGREE items important criteria to clarify quality aspects of OPGs. Relevance scores were independent of the appraised OPG and the background of the appraiser. The feasibility of the use of the AGREE instrument was higher if the document was more 'guideline-like'. A majority of the appraisers was in favour of using the AGREE instrument to certify publicly available OPGs.

**Conclusions:** Key persons from many different organisations agree on the importance of the AGREE criteria for assessing the quality of OPGs. For reliable scores at least 4 appraisers are needed. Proper training of the appraisers in using the AGREE could improve reliability.

Low item and domain scores for the individual OPGs indicate where improvements are possible and necessary. Like most appraisers we think the AGREE criteria provide an excellent framework to develop or update OPGs and in doing so improve their quality dramatically.

## P-71

## Validating clinical guidelines: using the AGREE-instrument in practice

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**Background:** Over recent decades, the number of available clinical practice guidelines has grown enormously. Guidelines should meet specific quality criteria to ensure good quality. The AGREE-instrument was developed as a set of criteria to critically appraise clinical guidelines.

**Objectives:** The Belgian Centre for Evidence-Based Medicine (CEBAM) was appointed by government to establish validation committees to ensure that potential biases inherent in guideline development are addressed properly and that the Belgian recommendations for practice are valid and reliable. The AGREE-instrument is used to support these validation processes.

**Methods:** For each clinical guideline submitted to CEBAM a validation committee of 5 members is established, appointed by the direction board. These committees consist of at least 2 methodological experts and 3 experts familiar with the content of the guideline. Each of them scores the criteria set out in the AGREE-instrument individually. The overall judgement is made in a meeting between the experts. Guidelines that fulfil the AGREE-criteria are given an official CEBAM-label.

**Results:** Between June 2002 and June 2005 fifteen guidelines were submitted. Eight of them received an official label, 4 are still in progress and 2 were not resubmitted after being negatively evaluated.

**Conclusions and Implications:** The AGREE-instrument has shown itself valuable in evaluating Belgian clinical guidelines. More efforts should be made to train experts to gain certain skills for a critical appraisal of clinical practice guidelines.

## P-72

# Factors related to the quality of stroke rehabilitation clinical practice guidelines

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**Objectives:** Clinical practice guidelines (CPG) are developed by a variety of groups and are available from different resources such as the Internet and peer-reviewed journals. The aim of this study was to evaluate factors that may affect the quality of stroke rehabilitation clinical practice guidelines.

**Methods:** A systematic search was conducted using the Internet, Medline, CINAHL and Embase for stroke rehabilitation CPG published from 1998 to 2003. To be included, the CPG had to be published in English or French, developed by a group process, evidence-based and directed toward stroke rehabilitation therapists. Groups of 4 people with expertise in stroke rehabilitation or knowledge translation evaluated the CPG using the AGREE instrument. Standardised scores from 0 – 100 were calculated and compared using an independent t-test.

**Results:** Eight guidelines from the United Kingdom, Europe, the United States and New Zealand met the inclusion criteria. Six were retrieved from the Internet and 2 from Medline. Guideline groups developed 4 of the CPG and the remaining 4 by other associations. CPGs retrieved from the Internet scored higher on all 6 domains of the AGREE with domain 1, scope and purpose (mean  $81.5 \pm 1.3$  vs.  $40 \pm 4.0$ ,  $p < 0.001$ ) and domain 3, rigour of development (mean =  $70 \pm 8.2$  vs.  $33.5 \pm 4.5$ ,  $p < 0.01$ ) being significantly different. CPGs developed by guideline groups scored higher on all 6 domains with domain 2, stakeholder involvement (mean  $70.0 \pm 7.8$  vs.  $35.8 \pm 7.8$ ,  $p < 0.02$ ) and domain 3, rigour of development (mean =  $78.8 \pm 5.9$  vs.  $43 \pm 21.7$ ,  $p < 0.03$ ) being significantly different.

**Conclusions:** CPG retrieved from the Internet and developed by guidelines groups were of better quality than those published in peer-reviewed journals and guidelines created by other associations. Guidelines published in peer-reviewed journals are restricted to a specific length and likely have to exclude much of the important guideline development information. The Internet publications are able to include more methodological details pertaining to the development process that may have lead them receiving higher scores. Established guideline development groups such as the Scottish Intercollegiate Guideline Network, the Royal College of Physicians, and the New Zealand Guideline Group have gone through this process for many other medical areas, and most have developed a standardized methodology that is followed for development and updating of CPGs. Our findings support the use of a standardized approach to guideline development.

## P-73

# Saudi hypertension management guidelines: is it evidence-based?

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**Objectives:** The aim of this paper is to evaluate the Saudi Hypertension Management Guidelines from the Evidence-Based-Medicine point of view using the AGREE Instrument.

**Methods:** The Saudi Hypertension Management Guidelines was published recently by the Saudi Hypertension Management Society and the National Hypertension Management Commission. It is the first of kind in the Gulf area, and the second, after the Egyptian Guidelines, in the Meddle East Region. The Guidelines contain two unique chapters about the management of hypertension during the fasting of the Holly month Ramadan and the management of hypertension during Hajj. The full text document contains a chapter on the method used to develop the guidelines is evaluated form the Evidence-Based-Medicine point of view.

## P-74

## The use of AGREE in the German-speaking context opportunities for further development

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**Objectives:** In 2000 the Association of the Scientific Medical Societies in Germany (AWMF) and the Agency for Quality in Medicine (AQuMed) published the German Checklist „Methodological Quality of Guidelines“ and a corresponding manual for assessing the quality of guidelines. The Checklist was based on the international methodologies and instruments at that time, and as these were renewed and reevaluated, the checklist had to undergo renewal, too. The German checklist contained many details specific to the German healthcare system. One of the most important questions to be dealt with was the possibility of basing the German Checklist on the AGREE-Instrument.

**Methods:** AGREE instrument and German Checklist were evaluated and compared, thus identifying where AGREE and the contents of the German checklist overlapped. Adaption and additions of the AGREE-Instrument, adding of contents needed for the German context in an additional 7th domain, pilot-testing in the expert-panel, revision of wording and formulations and second pilot test in focus-groups were performed. Corrections of wording, dissemination and implementation were performed after the second pilot-test.

**Results:** Adaption of the AGREE-based German checklist (“DELBI”) for German healthcare needs was possible. DELBI contains an additional 7th domain with 6 statements dealing with specific aspects addressing the needs of the German health care system. The AGREE-domains could be adapted by modifying the statements and the comments. A new guideline-manual based on AGREE will be produced to explain the contents of DELBI in the context of the German health care system.

**Conclusions:** By developing the new German checklist from AGREE, a broad methodological basis for formulating quality-focused CPGs can be used. The features for taking into account the special needs of the German healthcare system have been added as a distinct 7th domain. The DELBI-checklist focuses on the international basis for guideline producers given by AGREE. This will bring methodologies of guideline assessment as close together as it has been done never before in Germany. Furthermore it will promote the use of all products which are provided by G-I-N and its databases because of sharing the same basis. The adding of local-context domains to AGREE could be a way to implement national specialties or special domains into the instrument and help to reduce the number of fundamentally different instruments.

## P-75

## A comparative analysis of clinical practice guidelines for management (immediate and secondary prevention) of ischemic stroke

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**Objectives:** To catalogue and comparative assess the quality of the Spanish and international CPG for ischemic stroke taking into account the format and the methodology of elaboration.

**Material and methods:** We performed an exhaustive systematic bibliographic search of CPG for the management of ischemic stroke. We designed a sensible strategy, using methodological filters in the following databases: Medline, IME and Lilacs, National Guidelines ClearingHouse, NeLH, NICE, GIN, CMA Infobase..., elaboration groups such as SIGN, NZZHTA, AHRQ, MoH, ICSI,... and Scientific Societies: AHA, AMA, RCPL,... We directly contacted (two mailing rounds) with those involved in the elaboration of guidelines in Spain to recover Spanish guidelines. We included all the CPG recovered, edited in English, French, Italian, Portuguese or Spanish languages since 1997 to 2005 and excluded those CPG whose scope were primary prevention and rehabilitation of ischemic stroke. Four researchers assessed independently the structure and methodology of the CPG by using the CPP and AGREE instruments, respectively.

**Results:** We recovered 100 international and 17 Spanish CPG and after applying exclusion criteria we assessed 51 CPG (36 international and 15 Spanish). Taking into account the methodological quality (using the AGREE instrument) we observed that the areas that obtained the best score both in Spanish and International guidelines were “Scope and purpose” (0.45±0.24), and “Clarity and presentation”(0.55±0.18). Those areas that obtained the worse score were “Stakeholder involvement”(0.18±0.14) , “Rigour of development” (0.29±0.19) and “Applicability” (0.13±0.14). Most of the guidelines received the overall score of “would not recommend” (0.44±0.10). The international CPG showed in general better methodological quality than the Spanish ones although the areas that obtain better scores were the same. Finally, we observed (using the CPP instrument) that most of the CPG assessed were directed to secondary care and didn’t provide procedures for updating.

**Conclusions:** The overall quality of the edited CPGs for management of ischemic stroke didn’t reach the methodological minimum quality. We observed an improvement in quality in the last years that could be due to the publication of new tools such as AGREE or CPP and the existence of international initiatives for the improvement of CPG.

## P-76

# The quality of summary algorithms and flow charts found in clinical practice guidelines published by G-I-N members?

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**Objectives:** The aim of this study was to develop a tool to assess the quality of algorithms and to test its use with a sample of international clinical practice guidelines.

**Methods:** A quality scoring system for algorithms was developed from published standards. A search for clinical practice guidelines in cardiovascular disease containing one or more algorithms was performed in May 2005. The first search on the G-I-N website used the MeSH term cardiovascular and retrieved all guidelines published by G-I-N members. A further detailed search on the National Guideline Clearinghouse website by keyword and speciality (cardiology) retrieved all guidelines published in English by these groups containing one or more algorithms. These were classified into types according to the stated purpose (risk assessment, diagnosis, therapy, referral or combined), primary type (decision tree, flow chart, stratification scheme or care pathway) and scored against the quality matrix.

**Results:** Despite the central role of algorithm development to guideline development and implementation processes, not all the guidelines found included an algorithmic representation of knowledge. The quality of the algorithms found was variable and depended on the complexity of the topic and the intended purpose for which the algorithm was developed. Those complex algorithms that summarise therapeutic management choices using a decision tree model adhere closest to the published standards. No algorithms were found that had explicitly been developed to aid knowledge translation/transfer from text into an electronic clinical decision support system.

**Conclusions:** A lack of uniformity exists in representing algorithmic knowledge in these cardiovascular guidelines. There is a tension between the goal of representing simple decisions clearly with summary algorithms and the need to accurately represent complex and sometimes ambiguous recommendations. A discussion of standards leading to consensus agreement across guideline development organisations on the indicators of quality, classification and terminology for algorithms and flow charts is needed. Such an agreement would increase the value and use of textual guideline summaries. It would also facilitate the use of algorithms as common "ground" for knowledge transfer between clinicians, guideline developers and guideline implementers particularly implementers using electronic clinical decision support systems.

## P-77

# Creating a Norwegian e-health library - lessons to learn

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**Objectives:** Sharing experiences from the development of a publicly funded electronic health library in Norway.

**Background:** the Norwegian health care system is almost exclusively publicly funded. Hospitals are organized as five state owned Regional Hospital Trusts. The responsibility for primary health care is laid upon the 434 municipalities. Most GPs work on a private contract basis and are partly reimbursed by the National Insurance Fund. Plans for an electronic library for health personnel in Norway have existed for many years within different organizations. Two years ago, The Norwegian Directorate for Health and Social Affairs invited seven organisations (representing, nurses, doctors, pharmacists, the hospitals, and the government) to take part in an advisory panel to develop the library as a kind of partnership. The aim is to develop a joint venture based on equal impact from all the stakeholders.

**Methods:** Facilitating a process where different stakeholders are equally and fairly involved concerning decisions about professional content, ownership, management, and funding in developing a national publicly funded e-health library with free access for all groups of health personnel. This is not a research project, but a 'live' report, where we try to extract some of our experiences, thought to be useful for others.

**Results:** Even though much effort has been put into the process of formulating common goals and regulations for the e-health library over a long period of time, several problems arose when final decisions should be made on how to hold the stake:

1. We experienced ideological objections from some of the partners expressed amongst others by the chief editor of the Journal of the Norwegian Medical Association. "The health authorities need knowledge to govern, but should not be in charge of the development and dissemination of knowledge".
2. More practical antagonism was expressed by different stakeholders and possible future shareholders. How can we secure our own interests in a possible partnership? How should the library be organised to become a common source of free and independent information and knowledge for the different groups? What kind of ownership is practical to handle formal contracts and to stimulate professional development?

**Conclusions:** We have met some unforeseen hindrances in the development of a national electronic health library. But at the time of abstract submission we still hope to overcome them. We believe that the resistance is a sign that the e-health library is considered an important issue with a great potential.

P-78

## Web-based guidelines for the evaluation of fever in returning travelers and migrants ([www.fevertravel.ch](http://www.fevertravel.ch)): promotion and appropriateness for the primary care physician

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**Background:** Fever upon return can be caused by diseases that are rapidly fatal if left untreated. The differential diagnosis is wide. Physicians often lack the necessary knowledge to appropriately take care of such patients.

**Objectives:** To develop, promote and assess practice guidelines for the first evaluation of patients presenting with fever upon return from a tropical or subtropical country.

**Methodology:** After a systematic review of the literature, a decision chart was constructed and extensively discussed with a national and international panel of experts in travel/tropical medicine, specialists in infectious diseases and internal medicine as well as by private practitioners. After publication (*J Travel Med* 2003; 10 Supp.2), a website was created and is now freely available on the Internet for the medical personal who want to use the guidelines ([www.fevertravel.ch](http://www.fevertravel.ch)). Presentations and tutorials were run at national and international travel/tropical and internal medicine meetings to promote the use of the guidelines. At the same time, a pilot study was conducted at the Medical Outpatient Clinic to assess the feasibility and safety of the guidelines when used in the context they have been designed for. Physicians on call were asked to use the decision chart when caring for travelers or migrants with fever upon return. Navigation through the decision chart was recorded. Diagnostic tests performed, treatment administered, initial and final diagnosis as well as final outcome were collected prospectively. When the proposed attitude was not followed, reasons for non-adherence were investigated.

**Results:** From Apr 2003 -May 2005, 8287 visits were made to the website, mainly in Europe and the USA. Since study initiation, 161 physician/patient pairs have been included. Results on this first sample show that 45% were fully adherent to our guidelines. The main reasons for non-adherence were no repetition of malaria tests (35/131=27%), no chest X-ray in case of cough (12/50=24%) and no presumptive treatment for fever + diarrhoea (16/42=38%), all in the absence of alternative documented diagnosis.

**Conclusion:** Although considered very useful by our primary care physicians, the guidelines will need refinements following investigation on a larger sample size. Infectious disease specialists who work in collaboration with primary care or emergency physicians are welcome to join the study when Internet support for complete recording of the path followed by the user will be available.

P-79

## Users' experiences and suggestions for improvement concerning the handling of and guideline retrieval in the Guideline Library of the Guidelines International Network.

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**Background:** The Guidelines International Network (G-I-N) is a dynamic, expanding network of guideline users and developers with a growing need to access evidence-based clinical practice guidelines (CPGs) via a comprehensive electronic database.

**Objectives:** From our perspective as regular users we would like to report some of our experience with the handling of the current version of the "Guideline Library" ([www.g-i-n.net](http://www.g-i-n.net)) and suggest further developments in distinct areas of the G-I-N Library.

**Methods:** Two information specialists and five research scientists from our institution have made use of the Library since spring 2004. In more than seven projects requiring systematic searches for CPGs we used the electronic database as part of our established retrieval strategy that included Pubmed, NGC (National Guideline Clearinghouse), SIGN (Scottish Intercollegiate Guidelines Network), NZGG (New Zealand Guidelines Group) and around 30 other sources. We compared the results in order to identify and formulate possibilities for improvement.

**Results:** No substantial benefit in using the G-I-N Library concerning the number of hits could be found. Even though the hit lists were overlapping, the retrieval of guideline references from NGC for example in the Library was yet incomplete. Currently one of the major drawbacks in the use of the G-I-N Library are the missing features for systematic searches. Our team members missed especially functionalities like BOOLEAN operators, search history and export / download tools they were familiar with from their previous work with Pubmed. The given access to guidelines in full text versions and NGC's guideline summaries via direct links was judged as a major advantage.

**Conclusions:** The G-I-N Guideline Library is still in an early state of its development and there is room for further improving its search and documentation functionalities in order to meet the needs of guideline professionals. With an ever growing number of international guidelines from its members and a direct and easy access to full texts and summaries the G-I-N database has the potential to become a very useful tool for researchers and guideline developers.

## P-80

# Search strategies for guidelines - a comparison of various providers and databases

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**Objectives:** The "Institute for Quality and Efficiency in Health Care" (IQWiG) = Institut fuer Qualitaet und Wirtschaftlichkeit im Gesundheitswesen) was established in 2004, by the Federal Joint Committee (G-BA) which self-administers the health services in Germany. One of the main duties of the Institute is to make recommendations about disease management programs based on evidence based guidelines. In order to obtain a comprehensive overview of the national and internationally published guidelines, a very sensitive search strategy needed to be developed.

**Methods:** A systematic guideline search was performed for 19 topics. The predefined search strategy included a parallel search via the German Guidelines Database [www.leitlinien.de](http://www.leitlinien.de), the G-I-N-Database, Embase, Medline, as well as Google Scholar and SUMSearch. The search included nationwide guidelines which were published within the last 10 years in the English, German, French and Dutch language. The results of the various options were recorded and compared.

**Results:** We found the most guidelines through searching the German Guidelines site „[www.Leitlinien.de](http://www.Leitlinien.de)“. The second highest amount of successful matches was found through Guidelines International Network. About 25% of the publications were found in both guideline offers. Via Medline and Embase we found only approximately 20% of all of the relevant guidelines. From those, however, approximately 80-90% were exclusive matches.

The search strategies in the guideline databases were heterogeneous according to each database's structure. Dealing with broken links was one of the main problems in the guideline databases. There is no opportunity to save the search results automatically. The check for duplicates must also be performed by hand.

**Conclusion:** A sensitive and comprehensive guideline search requires a parallel search of various guideline providers and literature databases, which produces a large number of duplicates. This is time consuming and cumbersome, but essential in order to retrieve a complete list of guidelines. More relevant than the total number of retrievals, however, is the quality of the results. We will compare data sources to determine if one search method provides better access to guidelines that meet the AGREE criteria. The complete results will be presented at the congress.

## P-81

# Integrating the diversity perspective into guideline development; a course for guideline developers

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**Introduction:** There is increasing evidence that being male or female has a different impact on health. A previous study revealed that Dutch guideline developing organisations do not focus systematically on this evidence in their guideline development, but were interested to do this. In collaboration with these organisations, the Dutch Institute for Healthcare Improvement and the Dutch College of General Practitioners, we developed an implementation project which aims to enhance the attention for diversity among patients in procedures of guideline development. This project focuses on sex and gender differences.

This poster describes one of the interventions we developed in the framework of this project; a diversity course for guideline developers.

**The aim of the course:** The aims of the course were; 1. to inform staff members of guideline organisations about clinically relevant examples of sex and gender differences in health; 2. to instruct them in how they may support members of the guideline development committees to integrate attention to sex and gender differences in the process of guideline development.

**The content of the course:** The course followed key steps in the method of guideline development; 1. the selection of key topics, 2. the definition of the clinical questions, 3. the search of relevant scientific evidence 4. the interpretation of epidemiological and other scientific evidence, 5. the writing of the recommendations, 6. the external review. For each step, specific tools and recommendations were developed which could facilitate systematic attention to sex and gender differences.

**Evaluation:** The course was given in April 2005 to 14 staff members of the earlier mentioned organisations. They were invited to fill out an evaluation form directly after the course. The overall evaluation was positive. The long term effect of the course will be evaluated by observation of committees; a pre and post test questionnaire among committee members, and an assessment of the final guideline documents. These data are not yet available.

**Preliminary conclusion:** The course is evaluated positive and seems to be useful for raising awareness of diversity issues in health among developers of clinical guidelines. Whether their competence will be increased in addressing these issues in guideline development can be answered after the follow up is ended.





