review of clinical guideline implementability. Two analysts independently evaluated each PEM to determine how design principles were applied.

Results Though the sample consisted of PEMs designed and developed to influence care, no single PEM scored well across all categories. Some PEMs failed to differentiate major recommendations and did not present them in a stepwise fashion. Most used clear and easy to read text, but highlighting was often inappropriate. Some algorithms lacked logic and consistency. Images were poorly designed and used, which may distract and confuse the reader.

Discussion Design principles are not consistently applied in the development of PEMs and improvements are needed to images, presentation of recommendations, and usability of algorithms. Improvements to the design of PEMs may influence their uptake by combating information overload and increasing their perceived ease of use and perceived usefulness.

Implications for Guideline Developers/Users Those who create guidelines and other PEMs consider some design principles, but do not implement them consistently. Our checklist can assist guideline developers in employing a range of design principles.

### P082

### ADHERENCE TO RECOMMENDATIONS OF CLINICAL PRACTICE GUIDELINES

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Background The use of the recommendation of clinical practice guidelines (CPGs) by health professionals, depends on the diffusion process and local strategies of implementation of a particular guide in a specific service of the institution.

Objectives Assess the adherence to the recommendations of CPGs by health professionals internationally.

**Methods** A systematic review of the literature in PubMed was conducted (MeSH term 'Guideline Adherence', filters: published in the last 5 years, meta-analysis).

Results Out of 33 documents that were obtained, seven were selected, one systematic review and one document in google academic (Mexico). The percentage of adherence differs markedly depending on the directory in question and on the professionals involved from 61.1 to 72.2%. The median adherence was 45%. The professionals with the greatest adherence were dentists, whereas cardiologists and surgeons did not change their behaviour due to the recommendations of a CPG.

Discussion The degree of adherence to the recommendations of the CPG is influenced by different factors, related to the efforts of professional associations, the management of health care organisations, the professionals themselves involved in the care of the patient and the patient himself.

Implications for Guideline Developers/Users The key elements for adherence to the recommendations of the CPG are: involvement of the professionals with the strategy, occupational type, and suggested recommendations.

#### P084

EXPERIENCES WITH THE NOVEL POLICY FOR MANAGING CONFLICTS OF INTEREST IMPLEMENTED IN THE 9TH EDITION OF THE AMERICAN COLLEGE OF CHEST PHYSICIANS ANTITHROMBOTIC GUIDELINES (AT9)

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Background The executive committee of the American College of Chest Physicians 9th edition of the Antithrombotic Guidelines (AT9) developed a novel policy for managing conflicts of interest (COI): methodologists bore primary responsibility for each chapter; there was equal emphasis on intellectual and financial COI; and content experts with COI participated, but the intent was to exclude them from the final decisions on recommendations on which they had conflicts.

Objectives To explore the experiences of the AT9 methodologists and content experts with the COI policy.

**Methods** A descriptive qualitative study: We conducted two rounds of semi-structured interviews with 15 participants and presented the results to the remaining 4 for verification.

Results Methodologists were more positive about the policy than content experts. Six of 10 content experts expressed a more positive view than prior to participation in the AT9 process. The other 4 content experts remained sceptical, especially regarding the emphasis on intellectual COI. It was not possible to completely exclude conflicted panellists from the final decisions of the recommendations on which they had COI.

Discussion After its implementation, some content experts were more favourable to the policy, but some retained major reservations. The influence of the policy on recommendations may have been more through the leading role of the methodologists than exclusion of conflicted participants in making recommendations.

Implications for Guideline Developers/Users The leading role of methodologists was a positive innovation. However, restrictions to conflicted panellists were difficult to fully implement.

### P086

## DESCRIBING GUIDELINE DEVELOPMENT PROCESS: RESPONDING TO NEW CHALLENGES AND ENSURING TRANSPARENCY

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Background Evidence-based guidelines should be developed with rigorous methodological standards such as described by AGREE, G-I-N and IOM. One of the main aims is that the development process is repeatable and transparent. To follow these principles, process descriptions and methodological handbook are needed to enable appraisal.

Context Our organisation has developed EBM guidelines for two decades. A methodological handbook was first published in 1998, with the latest (6th) revision published in 2012. Until 2012, processes have been described as simple flowcharts, covering mainly the work phases, not the whole process.

Description of Best Practice Handbook was revised in co-operation with other national EBM organisations. It describes composition of guideline development group, methods for developing a guideline, consensus methods and decision-making process, patient involvement, peer review methods, and updating procedure. The process description was initiated in a workshop where all work phases and activities of guideline development process were written down and placed on a process flow diagram (swimlane) in chronological order. At the same time, the performer for each

### **Abstracts**

activity was acknowledged. Subsequently, main phases of the process were identified and described as subprocesses. The software used enabled linking between subprocess descriptions which made it possible to build up an overall picture of the process.

Lessons for Guideline Developers, Adaptors, Implementers, and/ or Users Visualising the overall picture of the process enables understanding of responsibilities of different performers in chronological order. Explicit process descriptions increase transparency, facilitate future process development, and help to maintain the rigorous guideline standards.

P088

EXPLORING POSSIBILITIES FOR INTEGRATION OF RESULTS OF RESEARCH IN PATIENT PREFERENCES IN GUIDELINE DEVELOPMENT: PRELIMINARY RESULTS OF INTERVIEWS WITH SEVERAL STAKEHOLDERS.

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Background There is full awareness of the urge to integrate patient perspectives in guidelines. Active patient participation in guideline development is advocated, the passive use of research results on patient preferences is rather limited.

Objectives To explore ideas and opinions regarding potential barriers and facilitators for integrating research results on patient preferences in guideline development.

Methods Eight interviews were held with patient representatives, guideline developers, policy-makers and researchers. Interviews were semi-structured along three themes: definition of patient preferences; consideration of research on patient preferences in guideline development and aspects of obtaining patient preferences through research.

Results Most interviewees defined preferences broadly, using terms as ideas, values, wishes, needs, expectations and experiences. Others described preferences exclusively as comparative judgments. Interviewees had difficulties reflecting on considering patient preferences by using research results, instead of active participation. Although the general increasing focus on patient participation facilitates the use of research results, many barriers were mentioned: relevance of collective preference for individual decision-making; focus of evidence-based medicine on "hard evidence"; lack of reliable and valid data; unclear how to integrate research results into the development procedure. Patient- and professional organisations often generate own evidence, with unclear scientific character.

Discussion The results show which issues are important and need further clearance. Interviewees define patient preferences differently, do not believe in using such research results or do not know how to do it.

Implications for Guideline Developers/Users Several issues need to be addressed to facilitate the integration of research results on patient preferences in guideline development.

P089

# CONSTRAINTS FOR CLINICAL GUIDELINE IMPLEMENTATION IN MONGOLIAN PRIMARY HEALTH CARE FACILITIES

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Background The goal of the Millennium Challenge Account Mongolia (MCA-Mongolia) Health Project is to reduce morbidity and mortality due to Non-Communicable Diseases (NCD) through extensive training of health staff, development of clinical guidelines and provision of equipment and other material resources. Four clinical guidelines were developed within the framework of the project: hypertension, type 2 diabetes, and breast and cervical cancers.

Objectives Facility Based Impact Study (FBIS) in 2010 gathered information on the capacity of health facilities to provide NCD services prior the project, and to assess the quality of services. Multi-stage stratified (urban and rural) sampling was used to select 194 primary health care facilities, and 730 individual respondents - representing different health worker categories - were selected within the facilities. The quantity and quality of NCD related services were assessed based on five factors; (1) human resources, (2) NCD screening activities, (3) availability of standards and guidelines, (4) health education materials, and (5) equipment and supplies.

Results Only 10% of the facilities met the defined requirements for 'high quality' in the provision of NCD services, 38% met the level of 'middle quality', 28% of facilities met the 'minimum level', and 24% were classified as facilities not meeting basic requirements and categorised as below the minimum quality level. Conclusions At least half of the health facilities need a marked improvement, and for one quarter the need is urgent. Insufficient training and time, and lack of materials were main barriers for effective NCD prevention and control.

P092

# DOES THE ADDITION OF SYMBOLS MAKE GUIDELINES RECOMMENDATIONS CLEARER? RESULTS FROM AN ONLINE SURVEY

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Background A recent study has shown that the perceived meaning of wordings in recommendations such as "should" or "must" can vary among guideline users. In addition to the wordings, many guidelines use graphic symbols such as arrows or smileys to support their recommendations.

Objectives To determine whether such symbols influence the perceived meaning of the recommendations or may help to reduce variation in the perception of the meaning between different guidelines' users.

Methods With the help of an online-survey, using a visual analogue scale (0–100), participating physicians from different specialties were asked to express their perceived levels of obligation when confronted with different guidelines recommendations in combination with different symbols.

Results 269 physicians participated, the addition of a "single arrow" or "double arrow" to the recommendation did not lead to relevant changes in the perceived obligation expressed by the recommendation (median: soll/shall: 83 vs. 87; "sollte/should": 77 vs. 78). In comparison to the prior study, variations in the interpretation of typical guideline wordings were not reduced if symbols were used additionally.