# OVERVIEW of QUALITY of CARE in SLOVAK REPUBLIC with REFLECTIONS on INTERNATIONAL STATE of the ART

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# I. INTRODUCTION

The years after political change in Czechoslovakia and Slovakia in 1989 brought up an issue of quality of health care. It was partially initiated by published evidence on unfavorable health status of the population, by expectations of better social and economic position of health professionals (unrealistic) as well as by a lack of information on health care systems in Western Europe and US. Particularly there has been no institutionalized and continued group which would systematically study health care systems in countries of the world. However, it has taken some time after the first programs been implemented.

First reports from international organizations dealt mostly with health status and environmental pollution. Very little was done to understand real situation in health care itself. Most studies reported limited financing of the system and problems with an abundance of human resources and hospital beds.

There were isolated attempts to start developing quality of health care programs, but in general there has been no motivation for this and therefore most of them failed or results brought up were not sustained.

This review attempts to summarize what has been achieved and point out capacities which have been developed. It also provides some hints what has worked and what did not. For a reader who might be interested in details this report also provides an itinerary when searching for reports in the archive of the Ministry of Health SR. The review serves as a background for subsequent description of experiences from Europe and US with implementing quality based health care.

This is followed with an outline of procedures and steps to implement selected approaches into Slovak hospitals and outpatient care facilities. This represents a roadmap of the project MATRA for the year 2005. Concepts verified during those pilot activities will be suggested to Slovak health care authorities as well as to the team of the World Bank.

# II. OVERVIEW OF EARLY INITIATIVES IN QUALITY OF CARE

## A. International Projects providing Technical Aid

Since 1998 number of internationally funded projects was implemented in Slovakia. Even among the first ones there were attempts to address the quality of care provided by Slovak health care organizations.

### i. US AID Project in Trnava Hospital (1993 – 1996)

Aim

to introduce principles of Continuing Quality Improvement CQI into daily activities of Hospital in Trnava

Activities

Education and training

Newsletter DSQ

Hospital Information System, Department Information System

Patients' Satisfaction Questionnaire

Sustained: No

### ii. 9708-01 Finance and Primary Health Care

Aim

To introduce new systems of reimbursement and accounting into departments of selected hospitals, new funding of health care providers and Strategic Financial management, to demonstrate effects of evidence based medicine in primary care, to develop basics for Quality and Accreditation processes, and to develop new strategies for health promotion.

Activities

Education and training

Specialty specific budgeting in hospitals introduced into 7 pilot hospitals

Sustained: No

### iii. 9520-01 Health Financing (PHARE Program)

Aim

The project addressed issues of improving the health insurance system in SR with special focus on quality of care. Basics of information system, insurees database were updated.

Activities

Trainings
Development of new software structures
Managerial changes
Visits

Sustained: Partly

### iv. 9520-02 Health Management (PHARE Program)

Aim

The project aim was to provide needed skills and tools for management of health care system and tools for management of actual providers of services, health centers, polyclinics, hospitals and their departments.

Activities

Study tours
Workshops
Trainings
Education
Methodology development

Sustained

Number of experts in health management trained

**v. 9520-03 Primary Health Care (PHARE Program): Health Promotion**

Aim

The project goal is to improve effectiveness of Primary Health Care and help the ongoing change from centralised and curative oriented health care system to more balanced with modern comprehensive practices.

Activities

Study tours
Workshops
Surveys
Media campaigns
Pilots

Sustained: Partly

**vi. 9520-04 Privatisation of health care facilities (PHARE Program)**

Aim

The project aim was the transfer of the ownership of health care facilities from the state to private sector.

Activities

Analysis
Workshops
Trainings
Evaluations

Sustained

Program Management Unit equipped with telephone lines and Internet
Trained staff
Economic and accounting tools for privatization and outsourcing

**vii. HMS**

Aim

The project to establish a school specializing on education of health care managers as an independent organization was proposed and implemented in close cooperation with the Univerzity of Groningen, The Netherlands

Activities

Series of training workshops and seminars were provided by Dutch experts from the University combined with visits to specialized institutions.

Sustained YES, fully

**viii. MBA at the University of Leeds, UK (PHARE)**

Aim

To educate a group of 18 Slovak experts in health care management to the level of Master of Business Administration.

Activities

Participants went through standard MBA curriculum in the health care management.

Sustained

Most of the participants assumes managerial positions in Slovak health care.

**ix. EU Research Project(Indicators and Case Mix)**

Aim

The project aim was to find existing differences in case mix between different European countries and to develop data collection and analysis of inpatient care provided to patients.

Activities

Publications
Presentations
Workshops

Sustained

Hospital database for statistical reporting.

**B. Local Initiatives**

Number of local initiatives were undertaken. Only those which had certain impact on current system are listed.

**i. Legislation**

The parliament of Slovak Republic endorsed 6 bills on health care:

- Health Care Act (Zakon c.576 z 1.11.2004 - Zakon o ZS, c. 577 z 1.11.2004)
- Health Insurance Act
- Health Care Providers Act ( Zakon o poskytovateloch ZS, c. 579 z 21.10. 2004)
- Health Insurance Companies and Surveillance Authority Act (Zakon o zdravot. poisteni, c.581 z 21.10.2004 - Zakon o zdravotnych poistovnich,dohlade nad ZS)
- Act on the Scope of Health Care Covered by the Public Health Insurance (Zakon o rozsahu ZS, c. 578 z 21.10.2004)
- Emergency Services Act. (Zakon o zachrannej sluzbe, c. 580 z 21.10.2004).

Most of them have the issue of quality built into it. The bills differ in principle from previous ones by higher responsibility of health insurance companies for health care purchasing and for insuree's financial protection, higher responsibility of the provider for provided health care and higher responsibility of the patient for his own health. Patient's Responsibility from §42 of the "Scope" Act, for prevention and for obeying the treatment regime, is the Health Insurance Company allowed to ask the insuree to refund provided health care, if the health care was necessary to provide in consequence of breaching the treatment regime or in consequence of use of addictive drug,

reimburse part of the insuree's co-payment if the insuree undergoes preventive examinations, preventive vaccination and leads a healthy lifestyle.

Quality of Health Care requires an obligation of minimal standards, it is a tool stimulating competition and criterion for selective purchasing and contracting (between the provider and the health insurance company) and its anchored in following bills:
§ 9 of the Providers' Act is the provider obliged to implement quality system for quality-assurance and quality-improvement and the details on quality system assessment will be set in regulation published by the Ministry, which comes into force on January 1st 2007.

Health Insurance Companies Act, where Health Insurance Company is obliged to publish the criteria for contracting, related to personal and technical equipment of the provider, quality indicators for monitoring of selected areas of provided health care, certification of provider's quality system.

Quality indicators are elaborated yearly by the ministry of health in co-operation with health care professionals' associations, health insurance companies, Surveillance Authority, published in the Government Decree (§ 7 par. 7 of Health Insurance Companies and Surveillance Authority Act) and elaborated for assessment of the following fields of provided health care:

- accessibility of health care
- cost-effectiveness
- efficiency and adequacy of health care
- perception of provided health care by the patient
- outcomes of health care.

Surveillance Authority consists of main specialists in individual medical disciplines - 32 affiliated workplaces all over Slovakia (autopsy rooms); autopsy issues are handled both in Health Care Act and in Health Insurance Companies and Surveillance Authority Act.
In Health Care Act Ministry of Health issues standard diagnostic and therapeutic protocols (§45 letter c). Catalogue of procedures, which should act as these standard protocols, will have only informative role in relation to the categorization of non-priority diseases.

**ii. Hospital Association – Patients` rights**

The Association of Slovak Hospitals initiated activities towards improvement of the quality of care in early 90ties. The Jornal of Slovak Hospitals started to publish papers elucidating on major issues of quality. The process resulted in creating a Civic Association for Quality associated with the Martin University Hospital. Unfortunately this group did not succeed to implement quality related procedures into legislation on national level or the level of the MoH.

**iii. MoH – network**

The network of hospitals in Slovakia was recognized as abundant and thus existing capacities were not used adequately. The Minister of Health in 1994 assigned a group of specialists from the National Center of Health Promotion to map existing resources on the level of hospital wards and evaluate basic indicators of performance. Along with that, a model was developed to estimate "optimal" performance indicators for each ward. The work resulted in a map of inpatient facilities optimized to certain standards. Unfortunately the next political leaders in the MoH lost their interest in this work.

iv. **Pharmacotherapy**

The edition of the „Metodické listy racionálnej farmakoterapie“ of the Slovak Ministry of Health became a regular forum to develop pharmacotherapeutic guidelines in Slovakie. Thirty four specific topics focused on problems of the rational pharmacotherapy (Guidelines for rational pharmacotherapy) were published. The guidelines are available free of charge from the Ministry of Health through the web page http://www.health.gov.sk/redsys/rsi.nsf.

# III. SITUATION IN SLOVAK REPUBLIC TODAY

This chapter will review the situation in Slovak Republic regarding issues of the project's primary interest: evidence based guidelines, national, hospitals and primary care indicators, Continuimg Medical Education and equipment standards in GP practices. Whenever appropriate references to local sources are included.

## A. Evidence Based Medicine, Diagnostic and Treatment Standards

Inventory of existing guidelines of Slovak or Czech origin available from local sources is to be found in the Appendices.

Out of the guidelines collected from different Slovak sources five were selected for an evaluation by four experts, using the AGREE instrument. The guidelines were selected with the aim of obtaining rather complex view on what is available from national sources (Czech sources were included because of the language similarity and general accessibility):

*i.* Diabetes Mellitus from the book *Standard diagnostic procedures, published by Slovak Health University*
*ii.* Dyslipoproteinemia from *Methodic letter of Rational Farmacotherapy*
*iii.* Chronic Obstructive Pulmonary Disease prepared by *prof. P. Kristufek from Slovak Medical Association, in the database of Slovak Medical Library*
*iv.* Consensus on Cholesterol prepared by *Slovak Association of Arteriosclerosis, in the database of Slovak Medical Library*
*v.* Backache contained in the book of guidelines from *Quality programs and standards of therapeutical procedures I, II, - practical handbook for hospitals, policlinics and PHC practices, published in Czech Republic.*

| | | GUIDELINE | | | | | |
|---|---|---|---|---|---|---|---|
| | Domain | Diabetes Mellitus Klin. Biochemia | Dyslipoproteinemie | COHP Kristufek Chovan | Cholesterolovy konsenzus | Bolest v krizi | Averag Score |
| Standardized Domain Score | Scope and Purpose | 52.8 | 80.6 | 72.2 | 61.1 | 80.6 | **69.5** |
| | Stakeholder Involvement | 27.1 | 50.0 | 33.3 | 27.1 | 39.6 | **35.4** |
| | Rigour of Development | 17.9 | 31.0 | 31.0 | 25.0 | 31.0 | **27.2** |
| | Clarity and Presentation | 43.8 | 66.7 | 68.8 | 47.9 | 52.1 | **55.9** |
| | Applicability | 27.8 | 52.8 | 36.1 | 25.0 | 27.8 | **33.9** |
| | Editorial Independence | 0.0 | 50.0 | 25.0 | 50.0 | 45.8 | **34.2** |
| | Average Score | **28.2** | **55.2** | **44.4** | **39.4** | **46.2** | |

**Figure 1 Evaluation of selected practice guidelines using AGREE**

Four Slovak professionals evaluated the documents. Three of them are experts in different fields of medical science; one is a doctor of public health. The results are displayed within the Table 1. The first document on Diabetes Mellitus was evaluated with minimal scores in all dimensions. The stakeholder involvement was evaluated low in the cholesterol guidelines, too. The first dimension on Scope and purpose was evaluated relatively high indicating, that reviewers felt positive about all of them. Also the "Clarity and Presentation" received a lot of

consideration. On the other hand the "Rigour of Development", "Applicability", Editorial Independence" and "Stakeholder Involvement" scored rather low. These areas require special attention when new guidelines will be developed or adopted from international sources.

## B. Catalogue of Procedures

Catalogue Committee nominated by the Minister of Health, consisting of physicians, professional organizations, health insurance companies and Ministry of Health, has developed the Catalogue of Health Procedures.

The Catalogue will be issued within a Regulation of Slovak Government, based on the new Health Care Act, number 576/2004 and first outputs can be expected in the fall of 2006. The catalogue is one of necessary premises for standard diagnostic and therapeutic procedures. In the process of the Catalogue creation, a list of health care procedures will be associated with individual diagnosis, considered as possibly indicated, due to current medical knowledge.

The list of procedures differentiates by importance of each diagnosis. Some procedures are always needed for certain diagnosis, some procedures depend on actual health state and its importance, and the others are alternative procedures. The process of the Catalogue development is continual and time-consuming.

## C. Performance indicators on National, Hospital and PHC Levels

### i. National level

Slovak Republic regularly reports health care and health related statistical data to WHO, UN and other organizations. Most of them are to be found at WHO Health for All Database, covering years since 1993. The most frequently used indicator used to characterize quality of health is life expectancy at birth and some other mortality based indicators. More up to date indicators as DALY or indicators related to specific disease condition are mostly unavailable with an exception of cancer and few other chronic conditions where individual cases are centrally registered (National registry of TB, Registry of IDDM, etc). Traditionally strong is registration of communicable diseases. OECD has invited Slovak republic to contribute to their attempt by submitting national indicators.

### ii. Health Insurance

Existing health insurance companies develop individual systems of performance indicators mostly for contracting purposes. We have selected the one from the General Health Insurance Company (GHIC) which covers the major proportion of Slovak population as an example.

Information in the database of GHIC on inpatient care services provided to those insured stem from common data collection system. Indicators for differentiated purchasing is planned to be based on the following set of indicators derived from the database of GHIC:

- Number of terminated hospitalizations at the ward;
- Number of nursing days;
- Number of patients;
- Diagnosis of the insured during an admission to the hospital;
- Diagnosis of the insured during a discharge from the hospital;
- Solicit care in specialized outpatient care;
- Solicit care in Joint investigative and therapeutic components;
- Special health material covered above the price of the hospitalization.

Combination of disaggregating, analysis and structuring of the indicators, following differential indicators will be evaluated:

| | | |
|---|---|---|
| **Efficiency of treatment** | Average number of re-admissions in 1 month to total number of hospitalizations | **Lower** equity ratio, higher evaluation |
| | Average number of re-admissions in 3 months to total number of hospitalizations | **Lower** equity ratio, higher evaluation |
| | Average number of re-admissions in 6 months to total number of hospitalizations | **Lower** equity ratio, higher evaluation |
| | Average number of deaths by diagnosis to total number of hospitalizations for mentioned dg. | **Lower** equity ratio, higher evaluation |
| **Patient interest** | Average number of hospitalizations out region insurees in total number of hospitalizations | **Higher** equity ratio, higher evaluation |
| **Severity of treatment** | Comparison of frequency and structure of diagnosis compared to average frequency and structure | **Higher** consensus, higher evaluation |
| **Cost - effectiveness** | Price ratio per 1 dg. versus the average price | **Lower** equity ratio, higher evaluation |
| | Cost ratio for solicit specialized outpatient care compared to average costs for solicit specialized outpatient care for 1 hospitalization | **Lower** equity ratio, higher evaluation |
| | Cost ratio for solicit Joint investigative and therapeutic components compared to average costs for solicit Joint investigative and therapeutic components for 1 hospitalization | **Lower** equity ratio, higher evaluation |
| | Ratio of average time of hospitalization compared to national average | **Lower** equity ratio, higher evaluation |

The evaluation will reflect the type of health facility and proficiency of wards. The most expensive and most frequent diagnosis will be evaluated. Once computed indicators are combined with information on accessibility of facilities and available structures of services within the region. It is also combined with data from branch offices, such as scheduled number of beds and the ratio of procedures for insurees of GHIC to total procedures for all insurees (in inpatient and outpatient care).

It is suggested to use a method for setting contract conditions for individual wards in inpatient care by evaluating differential indicators. Individual indicators are summarized in one complex coefficient – k, which reflects the evaluation of each ward.

Coefficient computing:

- Classification of each indicator in 5 qualitative classes and assignment of comparable numerical values to each class (20, 40, 60, 80, 100) – $\mathbf{d_i}$
- Balance determination to each indicator from interval $< 0,5; 1,5 >$ – $\mathbf{v_i}$
- Computing of coefficient by summarization composition of indicators and balance – **k**

It means: $\mathbf{k = \sum d_i \times v_i}$

Where:

$\mathbf{d_i}$ is quantitative value of indicator and may reach values 20, 40, 60, 80 a 100

$\mathbf{v_i}$ indicator's balance from interval $< 0,5 ; 1,5 >$

**i** serial number of the indicator.

### iii. Hospital level : PATH

The acronym PATH stands for **P**erformance **A**ssessment **T**ool for quality improvement in **H**ospitals. This represents WHO Euro project with the goal to support hospitals in defining quality improvement strategies by identifying areas for further scrutiny and sharing best practices, by providing tools for performance assessment, supporting hospitals questioning their own results and translating them into actions for improvement, and by enabling collegial support and networking. Performance assessment tools are designed for internal use and on voluntary basis only. It is meant for external reporting or accreditation or restructuring purposes.

General framework for the project and indicator selection is built on strong theoretical background and empirical material. It was elaborated by a group of international experts, with support from extensive reviews of the literature (more than 300 indicators initially identified) and a survey in 10 countries on data availability and perceived importance of pre-selected indicators.

This framework for performance assessment encompasses six dimensions: four domains (clinical effectiveness, staff orientation, efficiency and responsive governance) and two transversal perspectives (safety, patient centeredness).

Core set of Indicators have been tested in 10 Slovak hospitals, within each hospital Quality Units and joint network of hospitals on a district level were created.
Hospitals` representatives participated on 3 Workshops organised at Ministry of Health. Out of 18 Indicators from Core set, only 3 are not feasible for Slovak conditions (Day surgery, Excessive hours worked and Prophylactic ATB therapy).

Collected data will be reported in EXCELL spreadsheets with specification of variables and sent to WHO Barcelona office for final evaluation and elaboration.

## D. Review of Continuous Medical Education (CME) and Continuing Professional Development (CPD)

### i. Needs for CME/CPD in Slovakia

Until recent bills were accepted by the Slovak Parliament there has been no comprehensive policy and strategy for quality processes in health care in Slovakia. That is why requirements for CME development were traditionally oriented to external education activities mostly, despite the fact that CME concept was already included in the legislation (regulation 213/2004).
However, in the newly approved HC reform acts (October 2004) quality system is firmly anchored in

- Health Providers Act - as obligatory Quality Assessment &Quality Improvement Systems are required;
- Insurance Companies Act – a contract with providers is required;
- Personal and technical conditions;
- Quality indicators;
- Certificate of external quality assessment;
- Health Services Act - diagnostic and therapeutic standards and guidelines are recommended.

Consequently explicit needs and higher expectations for Continuing Medical Education (CME) and Continuing Personal Development (CPD) can be anticipated. Thus the more detailed review and evaluation of existing CME system in Slovakia including the comparison to internationally accepted standards in the field is relevant.

### ii. Definition of CME/CPD

The terms Continuing Medical Education (CME) and Continuing Professional Development (CPD) are not completely synonymous. CME refers more to formal, supervised, external type of learning, while CPD refers to self-directed and practice-based learning. It is sometime advocated to use the term CPD only. The purpose of CME and CPD is to guarantee the maintenance and up-grading of knowledge, skills and competences following the completion of (postgraduate) training. This process of lifelong learning is to enable the individual to expand and fulfil their personal and professional potential and thereby meet the present and future needs of patients and deliver health outcomes within the health care priorities of the population and health care providers.

In general CME and CPD should be the basis for ethical and moral obligation of each medical professional - specialist throughout his or her professional career. At the European level, umbrella organisations have developed policy statements and charters, which should guide the national organisations.
The Standing Committee for European Doctors represents the Medical Associations in the EU in its policy paper of 2001 puts the emphasis on the onw responsibility of the professionals and their organisations to engage in lifelong learning.
In its document Global Standards for Quality Improvement of CPD, the World Federation for Medical Education (WFME, 2003) distinguishes three motives for CPD: professional drive to provide optimal care, the obligation towards society and the need for job satisfaction.
The European Union of Medical Specialists has issued a charter (UEMS, 1994) which spells out guidelines for organisation and quality assurance of CME.

The CME/CPD activities can be grouped in three categories:

- **Personal** educational activities, where the professionals undertake individual activities and determine the education benefits gained (reading literature, internet search, etc.)

- **Internal** educational activities, where the professional participates in a routine, local educational activity with colleagues (clinical meetings, audits, reviews, etc.)
- **External** educational activities, where the professional participates in an educational activity where providers ensure a regional, national or international context for the activity (conferences, seminars, internet-based courses, etc.).

CME/CPD activities can also distinguished in clinical and non-clinical elements, related to the organisation of the work.
The learning methods applied can be diverse, ranging from the classical study of books and reading to journals to web-based learning programmes and ranging from class-room teaching to virtual reality learning of skills. The present technological revolution offers many new options for learning, which are relevant for CPD.

Thus the principal aim of CME/CPD is to guarantee an ongoing assurance of medical competence for general public and appropriate regulatory body. Usually it is medical professions/speciality oriented, but in some countries the model for all health service professionals is proposed (e.g. in Italy).

### iii. Development of CME in Slovak Health Care

The situation in CME/CPD is historically characterised by an influence of broadly accepted system of further education and specialisation of health service employees, mainly physicians and nurses defined in a law. Originally CME was based on "discipline/speciality specific" initiatives organised in principle under the umbrella of Medical Postgraduate School, today Slovak Medical University. Slovak Medical Chamber attempted to transfer CME activities to this body in the initial years of its existence. Active involvement was demonstrated also from the Association of Private Physicians. Medical Chamber representatives came with a proposal to implement a point system reflecting a participation in CME activities - as an obligatory requirement for their members. The present situation is influenced from Slovak Medical Association (SkMA), organisation which represents Slovakia in UEMS. The UEMS Annual Members Reports from 2003 summarised the situation in Slovakia was as follows:

Slovak Medical Association *passed a period of intensive transformation of health care during previous year: It was necessary to adopt Slovak health care legislation to the standard of European Union and SMA was continuously consulted on the prepared legislative by the Ministry of Health. The intensive health care transformation with the increased expenses in population is still a subject of political and medical controversies.*
*SkMA participated in the transformation of postgraduate medical education and this area appears to be the most important task for the coming years. The previous form of specialisation was abandoned and new one compatible with the EU legislation was implemented. However, the definite form, accreditation etc are still just to be done.*
*Continuing medical education system was adopted in agreement with the EACCME recommendations. National Accreditation Council was built and a series of information reports at various conferences was presented.*
*The main hindrance appears to be the previous credit system started several years ago with different policy and different values of credits. An agreement has been achieved. National Medical Societies were stimulated to participate in the activities of European Medical Societies both in postgraduate and continuous education and their activities are respectful (Prof. Dzurik – Slovak Representatives to UEMS )*.

### iv. Regulation of CME in Slovakia

Thus, CME/CPD in Slovakia is regulated by Decrees of Slovak Government on Health Service Employees and their Further Education. CME is anchored in the document *Governmental*

*regulation SR 213/2004 for postgraduate (further) education of health service employees*. Attachment 6 to this document defines components of continuing education as follows:

- Continuing education should be in 5 year cycles and involves:
- Non supervised personal learning activities in the area of the specialization - discipline;
- Performance of a practice within the discipline;
- Attendance at courses, eventually individual training activities organized by training institutions, which is at minimum one time during one cycle obligatory;
- Scientific meetings organized in co-operation with educational institutions;
- Study stays;
- Professionally oriented meetings of local, regional and international character;
- Lecturing including pedagogical activities;
- Publications;
- Scientific research.

### v. Constituting of SACCME

As it has been already mentioned above, *Slovak Accreditation Council for CME* (SACCME) was established based on mutual agreement among statutory representatives of Slovak Medical University, Association of Medical Schools, Slovak Medical Association, Slovak Medical Chamber, and Association of Private Physicians as non governmental non for profit organisations in the spring of 2004. The Institution is responsible for unification and actualisation of criteria for CME in the agreement with the recommendation of **EACCME** (European Accreditation Council for Continuing Medical Education).

SACCME already started with providing credits for CME activities as well as with implementation of some quality control mechanisms (unified participants' satisfaction questionnaire). Conditions for credits offered and fees are summarised on the Web page www.saccme.sk. In an agreement with the recommendation of UEMS a normative of 250 credits for 5 periods is proposed. From 250 credits there are 150 allocated for external officially planned medical education (CME) and 100 credit for personal study (CPD). In the end of the period data on physicians' credits will be transferred by SACCME to Slovak Medical Chamber.

Therefore, significant progress was achieved in formal organisation of CME mainly by inspiration and harmonisation with UEMS recommendations.

### vi. Summary of the situation and needs in Slovak system of CME

**Process**

- To continue in the support of accreditation of CME /CPD activities eg. through SACCME or similar body because there should be some form of quality assessment of all educational activities that are considered as CME;
- Next to collective forms of education activities e.g. conferences, external education and training to focus attention on in job training, visitation and peer review, individual study inclusive distance learning and Internet based e-learning;
- Remedial activities as new concept in Slovak condition especially related to increasing concern in quality of care, cooperation with new established „Supervision agensy".

**Content**

Next to typical content of CME initiatives for physicians devoted strictly to profession/speciality issues also ongoing courses for all health professionals (physician, nurses, administrative personnel, hospital managers) on

- quality assurance and clinical audit;
- health information systems ;
- EMB and EB PH;
- health technology assessment;
- medical ethics, patient right ;
- risk management;
- end of life (palliative) care;
- pain management
- …

**Financing -** fair and balanced pharmaceutical industry involvement?

# IV. INTERNATIONAL PERSPECTIVE

## A. Evidence Based Medicine, Diagnostic and Treatment Standards

Evidence-Based Medicine remains a hot topic for clinicians, public health practitioners, purchasers, planners, and the public. There are now many programs on how to practice and teach it and how to incorporate it in practice, and many centers for evidence-based practice have been established or planned. For example, the Cochrane Collaboration provides systematic reviews of the effects of health care; new evidence-based practice journals are being launched; and it has become a common topic in the lay media.

The need for evidence-based practice in medicine stems from several reasons:

- Enormous volume of research and published material demands organization
- Variations in service delivery require description and investigation,
- Pressure on health care resources, as more of the gross national product is spent on health care, has led to a demand for greater value for dollars spent
- Competition of commercial forces for delivery of health care has led to a demand for value while preserving or improving the quality of care being delivered and allowing for patient preferences.

Evidence-based medicine is the *conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients*. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. By individual clinical expertise we mean the proficiency and judgment that individual clinicians acquire through clinical experience and clinical practice. Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of individual patients' predicaments, rights, and preferences in making clinical decisions about their care. By best available external clinical evidence we mean clinically relevant research, often from the basic sciences of medicine, but especially from patient centered clinical research into the accuracy and precision of diagnostic tests (including the clinical examination), the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens. External clinical evidence both invalidates previously accepted diagnostic tests and treatments and replaces them with new ones that are more powerful, more accurate, more efficacious, and safer.
Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough. Without clinical expertise, practice risks becoming tyrannized by evidence, for even excellent external evidence may be inapplicable to or inappropriate for an individual patient. Without current best evidence, practice risks becoming rapidly out of date, to the detriment of patients.

This description of what evidence-based medicine is helps clarify what evidence-based medicine is not. Evidence-based medicine is not impossible to practice. The argument that everyone already is doing it falls before evidence of striking variations in both the integration of patient values into our clinical behavior and in the rates with which clinicians provide interventions to their patients. The difficulties that clinicians face in keeping abreast of all the medical advances reported in primary journals are obvious from a comparison of the time required for reading (for general medicine, enough to examine 19 articles per day, 365 days per year with the time available). Evidence-based medicine is not "cook-book" medicine. Because it requires a bottom-up approach that integrates the best external evidence with individual clinical expertise and patient-choice, it cannot result in slavish, cook-book approaches to individual patient care. External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision. Similarly, any external guideline must be integrated with individual clinical expertise in deciding whether and how it matches the patient's clinical state,

predicament, and preferences, and thus whether it should be applied. Clinicians who fear top-down cook-books will find the advocates of evidence-based medicine joining them at the barricades.

Evidence-based medicine involves tracking down the best external evidence with which to answer our clinical questions. To find out about the accuracy of a diagnostic test, we need to find proper cross-sectional studies of patients clinically suspected of harboring the relevant disorder, not a randomized trial. For a question about prognosis, we need proper follow-up studies of patients assembled at a uniform, early point in the clinical course of their disease. And sometimes the evidence we need will come from the basic sciences such as genetics or immunology. It is when asking questions about therapy that we should try to avoid the non-experimental approaches, since these routinely lead to false-positive conclusions about efficacy. Because the randomized trial, and especially the systematic review of several randomized trials, is so much more likely to inform us and so much less likely to mislead us, it has become the "gold standard" for judging whether a treatment does more good than harm. However, some questions about therapy do not require randomized trials (successful interventions for otherwise fatal conditions) or cannot wait for the trials to be conducted. And if no randomized trial has been carried out for our patient's predicament, we follow the trail to the next best external evidence and work from there.

Despite its ancient origins, evidence-based medicine remains a relatively young discipline whose positive impacts are just beginning to be validated and it will continue to evolve. This evolution will be enhanced as several undergraduate, post-graduate, and continuing medical education programs adopt and adapt it to their learners' needs. These programs, and their evaluation, will provide further information and understanding about what evidence-based medicine is, and what it is not.

**Clinical practice guidelines**

Most noteworthy is the rapid increase in knowledge of medical efficacy and effectiveness and of basic science. Although 80 percent of health care still cannot be related to a strong scientific foundation, the percentage of care based on evidence continues to increase dramatically. In the past 5 to 10 years, activity and interest in guidelines have changed the face of medicine. Concepts of effectiveness, outcomes management, continuous quality improvement (CQI), and total quality management (TQM) have been applied to medical practice. Organized medicine has embraced evidence-based guidelines, using mathematical modeling and outcomes. Clinical practice guidelines have made a contribution both to the methodological progress of evidence-based medicine and to management of the health problems they address.

Given the great amount of evidence available, medical practice can no longer be based on opinion as in the past. Physicians must now remain current with the literature, which has increased tremendously over the past two decades. The weight of the knowledge and the speed at which it is increasing have profound implications for every aspect of health care: education and training of physicians, practice of individual physicians, organization financing, and delivery of care. To remain current, doctors will depend on organizations and systems of care to provide them with timely summaries of the evidence. In this report an overview of guideline organizations currently existing is provided.

Although many organizations do produce guidelines to improve the quality of care, in many instances guidelines do not fulfill the requirements of being a good guideline (see Appendices). To stimulate organizations that develop evidence-based in making good guidelines, and provide guideline users to opportunity to assess whether guidelines are of good quality, the AGREE collaboration was established. AGREE is an international collaboration of researchers and policy makers who seek to improve the quality and effectiveness of clinical practice guidelines by establishing a shared framework for their development, reporting and assessment. The collaboration has the participation of a core of European countries (Denmark, Finland, France, Germany, Italy, the Netherlands, Spain, Switzerland and the United Kingdom) as well as Canada, New Zealand and

the USA. It comprises several research projects: the creation of an appraisal instrument to assess the quality of clinical guidelines; the development of standard recommendations for guideline developers; a comparison of guideline development programmes; a content analysis of guidelines on asthma, diabetes and breast cancer; an appraisal of individual recommendations. It is co-coordinated by the Health Care Evaluation Unit at St George's Hospital Medical School.

### i. OECD Health Care Quality Indicators Project

The aim of the project is to collect internationally comparable data reflecting the health outcomes and health improvements attributable to medical care delivered in OECD Member countries.

The Health Care Quality Indicators Project (HCQI) is a component of the OECD Health Project and belongs to the component Measuring and Analyzing Health Systems Performance. The project responds to the growing interest by healthcare policymakers and researchers in OECD Member countries in measuring and reporting the quality of medical care with quality indicators. 'Quality indicators', here, means: indicators for the technical quality with which medical care is provided, i.e. measures of health outcome or health improvement attributable to medical care (changes in health status attributable to preventive or curative activity). Such measures (combined with volumes of health care) could be said to represent the 'value' side of the 'value for money' equation in health care - a key issue in measuring the performance of health systems.

Many OECD Member countries have already instituted national strategies to begin to collect quality indicators often for benchmarking purposes in a performance measurement setting. Those efforts have brought about much progress in implementing quality indicators for the level of providers, such as hospitals or physicians. However, these national activities do not lead, except by accident, to internationally comparable QIs. That is because there is a lack of international agreement on the most promising indicators and many definitions of each indicator that could be adopted. As published international health data sets such as OECD Health Data currently lack corresponding measures for national health systems, there is, so far, little possibility of international benchmarking of quality of health care. This deprives national policymakers of the opportunity to compare the performance of their health care delivery systems against a peer group.

The HCQI builds on the efforts of several OECD Member countries and two international collaborations in developing indicators of health care quality at the national level. One group of five has been called together by an American foundation, the Commonwealth Fund of New York and represents Australia, Canada, New Zealand, the U.K. and the U.S. Another group of countries represents the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden. The members of both groups and nine additional OECD countries (Austria, Germany, France, Ireland, Japan, The Netherlands, Portugal, Spain, Switzerland) have accepted the invitation to embark on the first steps towards a comprehensive reporting system for quality of care in OECD Member countries, bringing the total number of participants to 19 countries.

### ii. WHO indicators (PATH)

After having been developed in 2003 within a WHO project, PATH is piloted in six countries in Europe (Belgium, Denmark, France, Lithuania, Poland, and Slovakia) and two countries outside the European Region (Canada and South Africa). The purpose of the pilot implementation – which runs between March 2004 and March 2005 – is to evaluate the usefulness of the tool as a whole (especially its assessment strategies), the burden of data collection and its potential for being spread out across Europe.

Indicators suggested to field test are divided in several categories. Each category is then subdivided into core indicators and tailored ones. Participants from Slovakia work only with the first subgroup. The table in the Appendix provides an overview of all indicators involved. The team of the MATRA project joined this initiative because it perfectly matches the projects aims. It provides verified information on availability, relevance, and usefulness for hospital management as well as for interinstitutional benchmarking with the country. The team expects to further develop the set provided by PATH and incorporate experiences gained into the final suggestion.

### iii. Performance Improvement (PI) Methods and Indicators of Outcome

Performance improvement for hospital care has followed certain evolution. A variety of techniques have been used specifically. These include:

**Morbidity and Mortality Conferences**: These involve a discussion of deaths and complications looking for preventable factors primarily in the actions of individual practitioners. Such conferences are utilized in surgery departments around the world and the peer review in these is the foundation for improvements in medical care through more formal PI programs. Typically, all types of cases are discussed at these.

**Preventable Death Studies**: These employ reviews of deaths either at an individual hospital or a given system looking for deaths which are considered, by consensus, as preventable. This may include such deaths as those from airway obstruction or isolated splenic injuries.

**Audit Filters**: A number of quality of care criteria are established. Particular cases that do not meet these criteria are then reviewed on a systematic basis to see if indeed there was a problem with the quality of medical care delivered. These include such factors as patients with abdominal injuries and hypotension who do not undergo laparotomy within one hour of arrival to the emergency department; patients with epidural or subdural hematoma who do not undergo a craniotomy within four hours after arrival to an emergency department; and greater than eight hours between arrival and debridement of an open fracture. Among the audit filters are evaluations of unexpected trauma deaths such as those occurring with low injury severity scores.

**Complications**: A long list of potential complications may also be tracked as indicators of the quality of care. This process looks for a rate of complications that is higher than would normally be expected. This includes such complications as development of pneumonia, wound infections, venous thrombosis, urinary tract infections, and the like.

**Risk Adjusted Mortality**: Through this statistical process, hospitals evaluate the percent of deaths occurring in patients with low injury severity scores or a low probability of death based on a combination of injury severity scores and trauma scores (TRISS methodology). This allows the hospitals to compare themselves against predetermined national norms. Hospitals with higher risk-adjusted death rates may warrant evaluation of the individual unexpected deaths along with evaluation of their systems of care to identify elements that might be contributing to such higher risk-adjusted mortality.

## B. Continuous Medical Education

### i. Models of CME/CPD in Europe

CME/CPD is a fundamental requirement for the maintenance of the quality of medical practice. Participation of medical professionals in CME/CPD programmes should be encouraged. However, national and international professional organisations advocate formalisation of the registration of learning activities. This serves several purposes: control on the professionals (not all have the in-built desire to learn), protecting the right to claim time for CPD, and laying a basis for payment of CPD activities. The registration of CPD/CME activities is part of the quality assurance of health services and protects the good name of the professions.

The registration of CPD activities can be done in different ways:

- informal, part of personal records of professionals
- formal, kept by professionals and submitted periodically
- formal, kept by a central body (like in the UK on line recording).

Formal registration requires clear guidelines of which activities are approved as CPD activities, how they are valued and how quality is controlled (accreditation of CPD/CME). Countries in

Europe may have different systems in place. In general, the professional associations play the role of recording and accrediting CPD/CME.
Records should be made available to national professional coordinating authorities if such a body exists. In many countries credit points are awarded to CPD/CME activities, often one point per hour spent on education. A professional should be able to demonstrate it's participation in CME activities by for instance a completion of a log book. This should detail the type of educational activity, the date and duration, the agreed credits given to it and what they gained from participating in it. This can then be related to the credit requirements for CME, and the relation of the activity to the curriculum and personal needs. The log book should be open to inspection should any issues of competency arise, and it should be possible to validate it against any external records of educational activities. Participation in a process of assessment is encouraged. This might be achieved through a participation in assessments organised during specialist meetings or in journals, or by visitation of colleagues.

A shift to activities which respect individual needs of respondents (CPD) is remarkable in countries as UK, Ireland, and USA.

Re-registration, recertification, revalidation

Many countries make CPD/CME obligatory and link this to re-registration or recertification of professionals. Often the re-registration takes place once in five years, and at that moment in time the professional has to submit evidence of CPD/CME activities during the past five years. The credit points required (equals hours spent on CPD) range from 40 – 50 hours per year, or 200 – 250 points in five years time.
Consequently, the development of national structures is being carefully followed. A need for CME formal record and recognition of a specialist's commitment to maintain skills and expertise continues to be required in most Member States. The overview of last progress in different EU Member States is documented in Development and Structure of National CME/CPD. This Annex is attached as full document. An overview of the situation in selected EU countries based on this document is in the Table 1.

### ii. Experiences in the Netherlands

Since 1997 professionals in health (like medical doctors, dentists, physiotherapists, nurses, etc.) have to be registered officially. The law says that for re-registration work experience and CPD are required, but leaves it to the professionals to propose further regulations to the Ministry of Health. The medical doctors have registration commissions per speciality (general practitioners, medical specials, public health physicians, etc.), which have formulated detailed regulations for work experience and CPD meeting quality criteria. These commissions are also responsible for accreditation of CME courses and other formal educational activities.
Paramedical professionals, like physiotherapists also have a re-registration, for which CPD is obligatory, as well as other professionals, like ergotherapists, radiologists, etc.
The Association of Nurses is still working on criteria for re-registration, but is probably moving into the same direction.
In 2004 a research was done into the re-registration practices (NIVEL, 2004). Most professionals agree on the conditions for re-registration (work experience and CPD). However, a minority is struggling with the criteria. For people who work part-time, the minimum amount of time per year (40 – 50 hours) may be problematic, as well as the costs attached to CME. People who have most objections against the re-registration conditions are female nurses and midwives as well as physiotherapists, who are working part time (less than 50% of time).

*Actual agenda connected to CME/CPD in Europe*

The Standing Committee of European Doctors and the Union of European Medical Specialist (UEMS) as the leading organisations in contributing to harmonisation of CME in EU countries constantly work on relevant topics. The main agenda for CME in Europe is characterised in several generally accessible documents, available as Publications on UEMS web page www.uems.net and as Policies on the CPME web page: www.cpme.be.

Among major recent concerns for the UEMS is a structure and facilitation of accreditation of CME/CPD activities as well as awarding appropriate credits (hours) to individual medical specialists throughout Europe. Thus UEMS has established the European Accreditation Council for Continuing Medical Education (EACCME) in order to provide Europe with a co-ordinated system to facilitate such an activity, without impairing the responsibility of national organisations where they exist.

The World Federation for Medical Education has produced a guideline, which provides standards for quality improvement. This guideline provides information on planning CPD, learning methodology, CPD providers, evaluation of CPD activities, etc. The document can be very useful for providers of CPD. The website is www.wfme.org.

## C. External quality assessment of health care providers

External assessment is increasingly used worldwide to regulate, improve and/or market health care providers. This increased interest has to be placed against the background of growing concern about the quality of care, efficiency and patient safety. Public concerns about these issues have demanded that health care systems demonstrate that they have quality monitoring systems in place. The emergence of new legislation focusing on improving organizational and clinical quality, particularly in European countries, is illustrative of this development. Although the precise demands placed on health care organizations by legislation vary, they share the common requirement of demonstrating that quality is being pursued and achieved. External review has become accepted as necessary.

The commonest external review models are accreditation, certification, licensure, peer review and EFQM assessment. These approaches offer decision makers a number of choices to consider. The various models of external quality assessment serve different goals. As assessments are designed to address one or a few specific needs, it is essential that the capabilities and limitations of the models as well as of the health care system in which they will be applied are clearly identified. Before choosing a model of external assessment managers, professionals and regulators need to be clear about their motives, their objectives, their customers and the potential stakeholders.

This background paper aims to be instrumental in the process of informing stakeholders about methods of external quality assessment, and helping them selecting the strategy that is most appropriate and effective in realising their goals. This paper makes use of and builds on the work that has been done previously by experts in the field of external quality monitoring. The subject has been extensively discussed in the literature. In particularly, we looked at the findings of the European ExPeRT (the External Peer Review Technique project) project, which described and compared the various assessment models currently in use (Int J Qual HC 2000;12. Theme issue on external quality evaluation); the Quality Assurance Project of USAID (Rooney AL et al, 1999), and the research of the WHO into national quality policies in health systems (www.who.dk. EUR/02/5037153).

### The need for external assessment of health care providers

One of the first steps in establishing an external quality assessment system is determining those needs it is intended to address so that the most appropriate and effective system can be selected, or even designed. External quality assessments may be introduced as a strategy to direct one of the following needs/issues:

- **Maintaining and/or improving quality**

During times of change it becomes critical that the quality of an individual or institution is at least maintained at its current level. Privatization within the health care sector, restructuring insurance mechanisms, introducing new technologies et cetera, may raise concern for the quality of patient care. Those accountable for implementing change in the health care sector are seeking quality monitoring and assuring mechanisms to prevent undesirable change in quality.
Since today's quality will most likely not satisfy tomorrows' needs, the focus on maintaining a certain level of quality may shift to the continuous improvement of that quality. This requires the implementation of a cycle of improvement (the so called PDCA –cycle, once introduced by W. Deming).
The identification of 'centers of excellence', facilities producing superior outcomes, may provide 'best practices' for use in quality improvement efforts in other health care facilities.

- **Establish entry level requirements and/or document special capabilities**

Prior to opening a health care facility, usually a government body will have to grant a permission to operate. Since the permission cannot be based on the actual delivery of care, the evaluation focuses on basic structural issues such as safety, medical staff and other health care personnel qualifications, accommodation, facilities and equipment, and types of services provided. In order for an organization or professional to deliver special services, additional/special criteria often need to be met. Designated settings or services are frequently used to direct or limit access to certain services.

- **Ensuring public safety and managing risks**

Governments have a fundamental (constitutional) responsibility in ensuring that citizens will not be harmed when they enter a health care facility or consult a medical professional. Health care organizations usually have a responsibility to comply with specific health (care) laws and regulations related to public safety.
Ensuring public safety includes the maintenance of specifications of facilities and equipment, such as adequate radiation shielding, safe mechanisms for hazardous and infectious waste disposal and the availability of fire alarm equipment.

- **Private sector monitoring**

In countries where the health care sector is (partly) privatized, there is need for governmental oversight. The most effective oversight includes the use of performance standards and quality monitoring either provided directly or through independent NGO's. A set of uniform quality monitors or indicators will facilitate benchmarking amongst public and private health care providers. Examples are surgical complications rates or patient satisfaction measurements.

- **Cost control/allocation of resources**

Efficient use of limited health care resources is a concern to health care organizations and public agencies. The acceptance of allocation decisions based on (objective) quality data has increased.

**Five models for external quality evaluations**

External approaches to quality improvement are widely used in many countries' health care systems, and have a long and varied history. Many countries have a collection of voluntary and statutory mechanisms for periodic external assessment of organizations against defined standards. Some of these have been systematically compared. They are all intended to assure or improve some elements of quality but they are usually run by a variety of disparate organizations without national coordination to make them consistent, mutually supportive, economical and effective.
Five approaches to external evaluation of health care quality will be discussed in this section. Licensure, accreditation and certification have broad health sector acceptance and wide experience. Assessment through EFQM is gaining interest in health care. Visitatie is a relatively new and less widespread model. Its professional ownership makes it an attractive approach to quality evaluation. The five approaches serve different purposes and provide different perspectives on the level of quality achieved. They will be discussed consecutively addressing their specific purpose, ownership, standards setting and implementation. Each model, with the exception of licensure, is, to varying degree, voluntary and independent and uses standards to combine internal self-assessment and external review by visits, surveys or assessments.
Most established programs have been subjected to internal or external evaluation of their (perceived) impact but lack of comparable research methods makes it impossible to synthesize the results. In general, there is ample evidence that compliance to pre-set standards increases in the months prior to the assessment of a health care organization. However, a causative relation between external assessment and improved outcomes of care cannot be proven.

***Licensure***

*Definition:*
Licensure is a process by which a governmental authority grants permission to an individual practitioner or health care organization to operate or to engage in an occupation or profession. Licensure generally focuses on minimum standards to protect public health and safety.
*Purpose:*
The purpose of licensure is to protect basic public health and safety. Licensure addresses the minimal requirements for a health care organization or practitioner to operate, care for patients, or function.
*Ownership:*
Licensure is always conferred by a governmental entity or its designated agent, such as a licensing or regulatory board, i.e. a national medical board or a state agency. Licensure is mandatory.
*Standards setting:*
By defining legal requirements for a health *professional*, licensure standards restrict entry to practice to qualified personnel meeting minimum qualifications, such as graduation from medical school or passing an exam testing specific knowledge. Professional and government agencies frequently work together in setting requirements for uniform standards, policies and practices. Key areas include examinations, requirements for full licensure, granting temporary and special licensure, disciplinary actions against licensees, procedures for handling impaired or incompetent practitioners, unlawful practice of medicine and periodic re-registration. The uniform development and use of consistent standards may be problematic for large and culturally diverse countries.

Licensure standards for health care *organizations* are intended to define the quality level that is necessary for patient care or health services to be safely delivered. The granting of a license to an organization means that that facility has permission to deliver patient care and offer health services. The licensure process may require (i.e. in the USA) some demonstration of the need for a service in the local community. This should guarantee appropriate allocation of health care resources.

Compared to the other external quality assessment models, licensure requirements usually change little from year to year since change requires legislative or regulatory initiatives; standard setting in the context of licensure is a political process.

*Implementation:*

Depending on the scope of the license (professional or organization) and the laws of the country or jurisdiction, licensure is initially granted based on some form of external evaluation checking minimum standards or capabilities. Continued licensure may be either automatically renewed, assuming no problems have been identified or reported, or the renewal may require periodic inspections or submission of documentation.

Most countries currently have some system of licensure in place for heath care organizations and professionals. However, the systems may not always be effective as intended in protecting public health and welfare.

***Accreditation***

*Definition:*

Accreditation is a formal process by which a recognized body, usually a NGO, assesses and recognizes that a health care organization meets applicable pre-determined and published standards. Accreditation addresses organizational rather than individual practitioner quality.

*Ownership:*

The onset of accreditation dates back to 1913, when the American College of Surgeons was founded to promote the concept of hospital standardization. Membership of the College required that doctors produced satisfactory case records to demonstrate competence in surgery. Five written standards, and the evaluation of compliance with them, formed the first accreditation program. By 1949, the College of Surgeons came together with a number of health service organizations to form the Joint Commission on the Accreditation of Hospitals, nowadays the Joint Commission on Accreditation of Health Organizations (JCAHO). The Canadians and Australasians can also build on a rich accreditation history, starting in 1958 and 1926 respectively.

Nowadays, accreditation programmes are available in many countries by independent agencies. A global study for WHO in 2000 identified 36 nationwide accreditation programmes and their rapid growth since 1995, especially in Europe. A survey of the WHO European Region in 2002 identified 17 such programs focusing on whole hospitals. Mandatory programs have been adopted in Croatia, France, Italy and Scotland. Half of the programs have been funded or managed directly by national governments which use them more as a means of regulation and public accountability, rather than voluntary self-development. Only three European countries have introduced accreditation systems run by the national government: Belgium, France and Scotland. In Belgium, planning needs form the basis for national standards which are then modified and administered locally. France subjects all public and private services to an external review aimed at improving safety as well as quality. And Scotland is developing separate accreditation programs for clinical priorities such as cancer, strokes and mental health.

Accreditation developed traditionally in hospitals and then moved inwards towards clinical specialties and outwards towards community services and then to networks of preventive and curative services. Some American programs now accredit entire health networks. Some European programs now address public health priorities (i.e. cancer services).

*Purpose:*

Unlike licensure, accreditation focuses on continuous improvement strategies and achievement of optimal quality standards rather than adherence to minimal standards intended to assure public safety. However, the original clear distinction between licensing and accreditation has become

confused as the traditional model of voluntary, independent accreditation is being rapidly adapted towards a government sponsored or even statutory tool for control and public accountability. Accreditation results may replace a licensing process or reimbursement decisions made be based on the findings. Many countries, especially in Eastern Europe, are using accreditation as an extension of licensing for institutions. In the UK several regions developed compulsory accreditation systems acting as a licensing system for providing cancer services. This is similar for the publicly owned hospitals in Catalonia, Spain. In the USA a wide range of accreditation systems are available which are permitted to substitute for state-controlled inspections.

In its design, accreditation may serve one or more purposes, including:

- improving quality
- providing education and consultation to health care organizations on CQI and 'best practices' in health care
- strengthen the public's confidence in the quality of health care
- risk reduction for patients and staff
- stimulating the integration and management of health services

*Standards setting:*

Accreditation standards are developed by a consensus of health care experts, published, and reviewed and revised periodically in order to stay current with the state-of-the-art thinking about health care quality, advances in technology and treatments and changes in health policy. Depending on the scope and philosophy of the accreditation program, standards may take a 'systems approach' that is organized around key patient and organizational functions and processes, such as patient satisfaction, infection control, and information management. Alternatively, standards may be grouped by department or services within a health care organization, such as nursing, radiology services, intensive care units, emergency medicine, diabetes care. Accreditation standards are set at optimal achievable levels, providing a target to strive for.

In evaluating health care organizations, accreditation has to maintain its relevance to the health system it serves. Consequently, the major programs have changed their emphasis, moving from an original focus on organizational structure to concerns about organizational performance. All major programs now have patient- or client-centred standards, describing health care processes as they affect patients rather than reflecting organizational structures only. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), for example, is continuously striving to integrate outcomes and other performance measurement data into the accreditation process.

Relevant, objective and measurable standards are essential if the expected improvement in health care quality is to be achieved. Accreditation standards, unlike minimum licensure standards designed to protect public safety, must encourage health care organizations to continuously seek to improve quality while recognizing what is possible to achieve given potential resource limitations.

Typically, new national accreditation programs begin by assessment against minimal standards of capacity in terms of structure. Developed programs are using optimum standards of performance in terms of process and outcome. The transition from minimum, structural standards to optimum, process and outcome standards occur when accreditation programs and health systems develop.

*Implementation:*

Accreditation decisions are based on on-site evaluations by a team of trained surveyors. Survey cycles are typically 2 to 3 years. On-site evaluations are usually conducted with advance notice to the organization, but some programs prefer unannounced visits. Both approaches have advantages and disadvantages.

Surveyors employ a variety of strategies to evaluate an organization's adherence to the pre-set standards. The facilities are being toured, documents and patient records reviewed and organizational and professional leaders, clinicians, employees and patients interviewed.
The survey team determines whether an organization complies with the standards. The threshold for determining the accreditation status must be based on pre-determined rules that are consistently applied in order for an accreditation program to maintain its credibility and enjoy the confidence of its clients. An individual program may use various types of accreditation decisions or awards to indicate the organisation's level of performance. For example, the American Joint Commission on Accreditation of Health Organizations (JCAHO) uses a four level system, designating organizations as accredited with commendation, with or without type 1 recommendations (requiring corrective action), conditionally accredited or not accredited. In South Africa, Cohsasa offers a program of graded recognition and facilitated accreditation. Other accrediting bodies choose the length of time (i.e. 1, 2, or three years) that the accreditation is valid, to differentiate between the insufficient and the good.
*Evaluating accreditation programs:*
Accreditation programs may be themselves accredited under international standards. The ALPHA (Agenda for Leadership in Programs for Healthcare accreditation) program of the International Society of Quality in Health care is the only system specifically designed for the international evaluation and recognition of health quality standards, and through accreditation of health evaluation bodies and training programs. ALPHA came about in the second half of the nineties as a result of established accrediting organizations getting together for debating the international credibility of accreditation. This resulted in the creation of an accreditation program for accrediting bodies and for an accreditation federation under ISQua. The ALPHA principles and standards aim to make standards-based assessment systems more reliable, valid and compatible within and between countries. In 2003, the ALPHA international principles for standards were expanded to also include other, non-accrediting, evaluation organizations.

***Certification***

*Definition:*
Certification is a process by which an authorized body, either NGO or governmental, evaluates and recognizes an individual or an organisation as meeting pre-determined requirements or criteria. Accreditation and certification are often used interchangeably. However, one of the most distinctive differences is that, unlike accreditation, certification can also apply to individuals.
*Purpose:*
Certification of health care organizations may serve many of the same purposes as accreditation programs do. While often voluntary, certification may also be a prerequisite for delivering services (i.e. a laboratory may need to be certified to conduct certain types of diagnostic testing) or being reimbursed for delivering certain health services.
Certification of professionals provides assurance to the public that a professional is trained and qualified as a health care provider. Professional bodies conduct the quality evaluations such that there is a system of self-regulation amongst practitioner.
*Standards setting:*
For certification of health care *organizations*, the ISO 9000 certification standards are increasingly used in the health care sectors of (mostly) European countries. ISO, the International Organization for Standardization, is dedicated to the promotion of standardization in the context of facilitating international exchange of services. An International Standard is the result of an agreement between the member bodies of ISO. It may be used as such, or may be implemented through incorporation in

national standards of different countries. ISO standards are developed according to the following three principles:

- Consensus: the views of all interests are taken into account: manufacturers, vendors and users, consumer groups, testing laboratories, governments, engineering professions and research organizations.
- Industry-wide: global solutions to satisfy industries and customers worldwide.
- Voluntary: international standardization is market-driven and therefore based on voluntary involvement of all interests in the market-place.

There are *three main phases* in the *ISO standards development process*. The need for a standard is usually expressed by an industry sector, which communicates this need to a national member body. The latter proposes the new work item to ISO as a whole. Once the need for an International Standard has been recognized and formally agreed, the first phase involves definition of the technical scope of the future standard. This phase is usually carried out in working groups which comprise technical experts from countries interested in the subject matter. Once agreement has been reached on which technical aspects are to be covered in the standard, a second phase is entered during which countries negotiate the detailed specifications within the standard. This is the consensus-building phase. The final phase comprises the formal approval of the resulting draft International Standard (the acceptance criteria stipulate approval by two-thirds of the ISO members that have participated actively in the standards development process, and approval by 75 % of all members that vote), following which the agreed text is published as an ISO International Standard.

The ISO 9000 standards focus on the maintenance of a quality management system. In ISO's words, this means what the organization does to fulfil:

- the customer's quality requirements, and
- applicable regulatory requirements, while aiming to
- enhance customer satisfaction, and
- achieve continual improvement of its performance in pursuit of these objectives.

The standards, however, do not specify what a 'good' quality management system is. The 9000 series are classified in 20 categories, referring to management responsibility, internal quality audits, process control and the like. Unlike accreditation standards, the ISO standards did not incorporate concepts of continuous quality improvement or evaluation of patient outcomes until 2000. The ISO 9000 were, however, adapted in 2000 to include the assessment of outcomes and consumer satisfaction. ISO 9000:2000 (its official new name) has become an international reference for quality management requirements in business-to-business dealings. Health care organizations may find the ISO standards useful in designing quality management systems. The ISO 15189 is becoming the international standard for medical laboratories.

Certification of health care *professionals* is common in the field of medical specialists in particular. In many medical specialties certification is conferred by a professional body to those colleagues who meet requirements as far as advanced training and demonstrated specialized knowledge and skill. In some countries specialty board certification is acknowledged through regulation or licensure as well, i.e. a license to practise surgery may be conferred to a regulatory authority, instead of or in addition to the professional certificate.

In order to maintain certification, many western countries have introduced requirements for re-certification (also revalidation, or reregistration). Recertification standards usually address continuous professional experience, skills, performance and/or clinical outcomes. The nature of

these standards may be quantitative (i.e. a minimum of 30 hours per week of direct patient care) or qualitative (i.e. commitment to CME/CPD). The professional (certifying) bodies have the authority to withdraw or withhold recertification if the individual fails to meet the predetermined criteria.

*Implementation:*
Certification is widely available from independent certified auditors. ISO is not a certifying body and so operates no system for evaluating conformance to the standards it develops. Other external evaluators may use ISO standards in their independent evaluations.

The ISO 9000:2000 (quality management) and ISO 14000 (environmental quality) families are among ISO's most widely known standards ever. ISO 9000:2000 and ISO 14000 standards are implemented by some 610.000 organizations in 160 countries.

***Visitatie***

*Definition:*
Visitatie is a process by which a professional body evaluates the circumstances under which clinical practice takes place as well as the processes and outcomes of patient care. It is generally supported and endorsed by clinical professions as a means of self-regulation and clinical improvement. Visitatie is specialty-based, not covering whole hospitals.
*Purpose:*
Visitatie aims at improving the quality of patient care through a system of peer review. It focuses on the evaluation of professional teams, such as hospital based specialists groups. This is where visitatie differs from accreditation and organizational certification that focus on an organizational entity and mostly extend their scope to include the whole organization. Furthermore, compared to other models of external assessment, visitatie is not based on a pass-or-fail approach. Its goal is education and prevention of adverse outcomes. The work of the collegial visitatie survey committees is best summarized as ‘diagnosing’ areas for improvement, expressed in a list of recommendations. In a recent study, these recommendations for improvement, as the measurable outcomes of visitatie, were analyzed. (Lombarts, 2003) The results suggest that the current bottlenecks in medical practice management lie in the ‘functioning of the specialist group’ (33% of all recommendations), in ‘management of care processes’ (30%), in the hospital context (25%) and in specific quality assurance/improvement issues (8%).

The implementation of recommendations, the ‘therapy’, is left to the ones reviewed. Follow up of implementation is normally checked in the next visitatie, usually after 5 years. From various studies can be learned that the degree of implementation of recommendations is about 50% to 60%. Visitatie results are confidential and not publicly available.
*Ownership:*
Crucial to visitatie is its professional ownership. This means that the developers, as well as the managers and the clientele are the professionals. In the Netherlands, the 27 acknowledged professional societies for medical specialists run their own visitatie programs. They set the quality standards, conduct the on-site surveys, pass their judgements and decide about follow-up of the visitatie results.

Visitatie experiences are not limited to medical specialists. Over the past decade most Dutch health professions introduced a visitatie program.
*Standard setting:*
Up till now, most visitatie programs stress the circumstances under which clinical practice takes place, such as medical record keeping, patient management, the use of guidelines, intra- en interdisciplinary cooperation and consultation, and evaluation of patient satisfaction and treatment

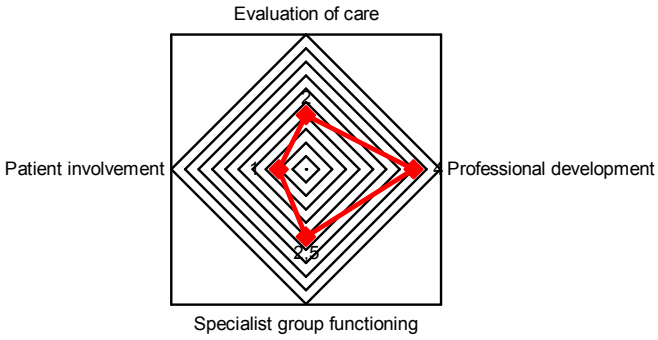
outcomes. For each of the review areas quality standards are available. Some hospital-broad quality standards are shared by all specialist societies, pertaining to i.e. the availability of diagnostic and library facilities, consultation structures and the organisation of the hospital medical staff. Additionally, each specialty society formulates standards for discipline specific areas as well as for individual performance. Amongst the latter are participation of specialists in hospital management, the collection of accredited CME hours as well as the minimum number of hours per week specialists have to spend in direct patient care.

Recently, the joint specialty societies renewed the visitatie model, shifting from a global assessment of circumstances and structural quality aspects to a more systematic and in depth review of the quality of delivered patient care and the daily practice of specialists groups. The four professional quality domains that are included in the new model are professional development, evaluation of processes and outcomes of care, the patient perspective and the functioning of the specialist group. The past two years assessment tools for the four professional quality domains have been developed and are now available for use by all speciality societies. The level of advancement in quality management is rated on a five point scale, score 1 representing no attention is being paid to this quality domain and score 5 recognizing this quality domain is systematically and continuously monitored and improved. Results are visually summarized, per specialist group, in a *professional quality profile*, as shown in the figure.

*Implementation:*

Visitatie originated in the Netherlands. Starting in the late eighties, the Dutch medical profession has taken the lead in developing and implementing visitatie. In 1989 the first visitatie of a surgical practice took place on behalf of the Dutch speciality society of surgeons. Now, an estimated 300 to 400 visitaties are carried out yearly, for all specialties combined. The newly developed visitatie model has just been presented to the specialty societies. Broad implementation of the new model is expected the upcoming years. Visitatie experiences are not limited to medical specialists. Over the past decade most Dutch health professions introduced a visitatie program.

Visitatie is not widespread outside the Netherlands. Some visitatie initiatives and programs have been reported though. In the UK, the General Medical Council launched peer review of practices very similar to the Dutch visitatie program, although the British program is conducted in the context of revalidation of physicians: the reviews focus on doctors who may be seriously deficient. Another British visitatie-based system is the visitatie program for renal departments. In Europe, visitatie-based systems have been adopted in Sweden and Finland where programs are in various stages of development. Very little has been published about the European systems. In the USA only two national specialty societies, the American Colleges of Obstetricians and Gynaecologists and of Anaesthesiologists, offer visitatie-



like programs. In Australia the Royal Australasian College of Physicians offers a 5 yearly quality review that seems comparable to the Dutch visitaties.

***European Foundation for Quality Management model 'EFQM'***

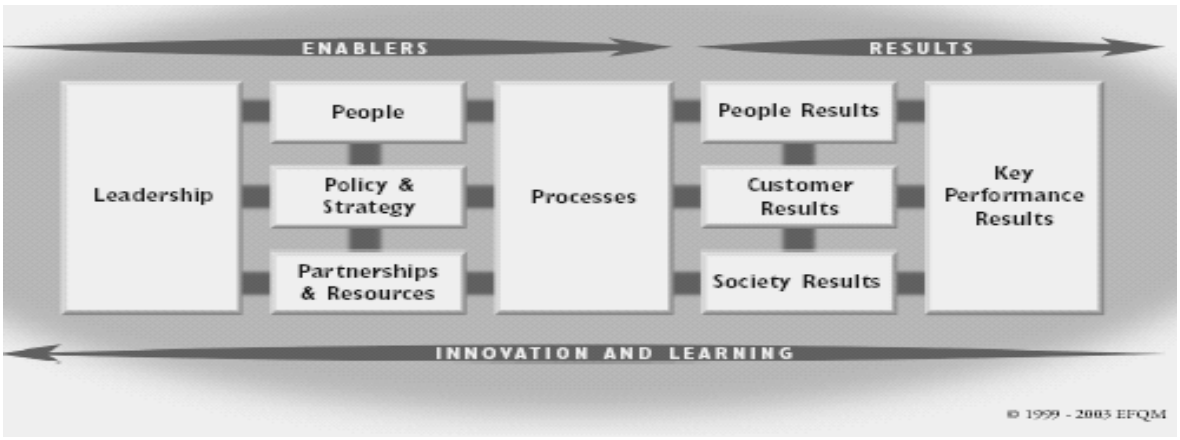
*Definiton:*
The EFQM management model is a self-assessment instrument that can be applied at all levels of a health care organization to facilitate organizational development. The EFQM model also is an auditing instrument for the Quality Award. The EFQM was initiated by the European Commission and 14 European multinationals in 1988. It is founded in the tradition of the American Malcolm Baldridge Award.
*Purpose*
The EFQM approach is used mainly as a framework for quality management and as a conceptualization of organizational excellence. The essence of the approach is that the performance needs to meet all the expectations, needs and demands of the stakeholders.
Its primary goal is facilitating quality improvement ambitions. The EFQM Model is the most widely used organisational Model in Europe and can be used for a number of activities. Examples include:

- organisations assessing themselves in order to identify where to focus improvement activity.
- benchmarking
- strategy reviews and creation
- as the basis for applying for the European Quality Award and many national quality awards.

*Standards setting*

EFQM provides performance standards (standards of excellence) for the service industry, amongst them health care. The EFQM model is non-prescriptive. It also is the most generic approach of all the external evaluation strategies. They cover quality management as an integral part of all professional and management functions at all levels of the organization. It also focuses on organizational development and continuous improvement. The model is not prescriptive and rather soft.

The standards can be used for both (on-going) self-assessment and for external review. The standards cover 9 dimensions or areas: 5 organizational (leadership, people, policy & strategy, partnerships & resources and processes) and 4 result (people, customer, society and key performance results) areas. The organizational ones are directed at the question 'what enables an organization to deliver its services?' and the result dimensions must provide an answer to the question 'what results are achieved?'. Each dimension is subdivided into subcriteria; 32 in total. The level of performance is calculated per dimension and for the whole organization visualised in a performance web.




*Implementation*

The EFQM model was introduced in 1993 and revised in 1997 and 1999. The use of the model is widespread, in all kinds of sectors and organizations. In almost all European countries the EFQM approach is used by health care organizations for self-assessment. Only in the UK and the Netherlands national institutes are formally supporting the practical work. Other European countries also have quality awards but in most cases they are not directly related to the EFQM model.

**Choosing a model for external assessment**

Different countries have adopted different models for monitoring quality assurance processes, reflecting different funding and accountability structures. The result is a complex array of combinations of dimensions of licensure, accreditation, certification, EFQM and visitatie: some are compulsory, others voluntary; some are based on written standards, others on the judgement of peers or inspectors. Maybe the most important lesson learnt in recent times is that it is necessary to find a way of reviewing organizations and their performance against standards, while at the same time ensuring that staff are motivated to continually strive to achieve higher quality. The various models presented in this paper offer different answers to the question of introducing external quality assessment in a health system. The choice for a particular approach needs to be based on the analysis of the specific political, economic and cultural environment. From the WHO a self-assessment tool is hereto available. Still, it may not be possible to implement the preferred model without any adaptations; this may lead to the emergence of a country specific assessment model. Then, no one model is static. External assessment approaches are continually developing to reflect the changing environments of each country and health service.

**References**


1. Rooney AL, Ostenberg P van. Licensure, accreditation, and certification: approaches to health services quality. Quality Assurance Project. Center for Human Services, april 1999.
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3. Shaw C. (ed) Evaluating accreditation. Int J Qual HC 2003;15;455-456.
4. Williams JR, Rosof BM. (ed) Quest for physician practice improvement. Int J Qual HC 2003;15;101-102.
5. Walshe K. Wallace L, Freeman T et al. The external review of quality improvement in health care organizations: a qualitative study. Int J Qual HC 2001;13;367-374.
6. Bohigas L, Heaton C. Methods for external evaluation of health care institutions. Int J Qual HC 2000;12;231-238.
7. Heidemann EG. Impoving to global standards for accreditation processes: the ExPeRT Porject in a larger context. Int J Qual HC 2000;12;227-230.
8. Lombarts MJMH, Klazinga NS. Inside self regulation: peer review (visitatie) by Dutch medical specialist. *Clinical Governance: an International Journal* 2003;8;318-330.
9. www.efqm.org
10. www.isqua.org.au
11. www.iso.org

## D. Products for the Health Insurance Companies in Slovakia

Under the new Health Laws of Slovakia the insurance companies need to purchase care from the care providers. Based on International and European experiences the following products are relevant:

- legal contract**;**
- Financial contract**;**
- Indicators and criteria for the care to purchase**;**
- Methods of measuring the quality and effectiveness of the delivered care;
- Contract for support organization**.**

**Legal contract**

This contract contains the formal and legal relationship between the insurance company and the care provider:

- Names and status of the contracting parties**;**
- Addresses of both parties, the address where the care will be delivered**;**
- Registration, accreditation **;**
- Facility demands (building, equipment, ICT, etc.)**;**
- Description of products and services to deliver (content, quality, logistics)**;**
- Patients' right**s, patient treatment (attitude);**
- Declarations (content, accurateness, time, formats, control mechanisms, return information)**;**
- Payment system (time, control, accounts, obligations of parties)**;**
- Accounting, accountability;
- Auditing**;**
- Legal obligations**.**

**T**he duration of this contract can differentiate form one to five years depending on the concrete situation and the position of the contracting parties. These contracts can by based on a model contract for the different care providers and adjusted for the concrete situation.

Financial contract

This contract contains the contracted products and services, the volume, the agreed prizes and other arrangements. These contracts are unique for every care provider. The contract has mostly a yearly base but can be extended, depending on the situation.

- Listing of contracted products and services**;**
- Volume pro product and pro service**;**
- Prizes**;**
- Payment method**;**
- Special regulations (payment)**;**
- Special regulations (product and services)**;**
- Cost control**;**
- Quality control**;**
- Special (additional) control mechanisms**;**
- Efficiency and effectiveness;
- Outcomes (products and services).

**Indicators and criteria for the delivered care**

This part is an addendum. It summons the different types of care and the standard quality. Examples are the hospital care, care of the family doctor and the diabetes care.

**Methods of measuring the quality and effectiveness of the delivered care**

Different methods can be used to measure the quality and the effectiveness of the delivered care. One method is to monitor a set of process - indicators of care delivery and of accessibility of care (readmission pro disease pro patient, mortality rate in the hospital and six weeks after, the amount of testing laboratory testing and measurements pro disease and pro patient group, the percentage of people being treated related to the group characteristics, indicators for acceptable waiting times etc.) and patient safety indicators (decubitus rate, rate of clinical admission days because of pharmaceutical failures etc) An other method is measurement by systematic questioning the patients about their hospital stay or about their medical treatment (Consumer Assessment Health Plan Surveys; CAHPS).

**Contract for support organization**

This contract contains the formal and legal relationship between the insurance company and a support organization. This organization supports primary healthcare doctors with

- Quality implementation,
- Entrepreneurship and
- Continuity of care in terms of
- Planning,
- Crisis,
- New building and
- Quality**.**

# V. CONCLUSIONS AND IMPLICATIONS

**Lessons learned**

There are few lessons learned from the previous activities, such as:

- Number of activities failed to sustain because of missing political will, non existing regulations or legislation to require activities. Also inability to institutionalize quality processes had led to a situation when many people who were trained and ready to start implementing quality processes has left the field.
- Low level of societal recognition of the issue along with political instability and insecurity of leaders did not stimulate people to care for quality.
- Education on quality of care is rudimentary in all medical schools as well as in many schools of public health.

Based on these facts as well as on results of the first year we are going to orient the next year of activities toward outlining a comprehensive system of quality targeting four principal audiences: national health policy makers, hospital management, General Practitioners and the management of health insurance companies. Within the audience personnel of newly established Agency for Health Care Supervision, teachers from universities and members of professionals' societies will be offered participation.

**National indicators** of health care performance will be based on the OECD indicators set. The Ministry of Health will be asked to collect the data.

**Hospital Indicators**

The pilot in hospitals will focus on three levels of indicators usage/development:

1. Quality of care for hospital performance
2. Quality of specialized care (diagnosis)
3. Patients and staff satisfaction.

The basis for all three of them will be taken from PATH collection of indicators. This will be enriched with indicators of cost-effectiveness, hospital infections, proportion of lab tests on the overall costs for the first group. The second group will focus on the most costly or most socially important group of diseases or syndromes. Among the candidates for a discussion the treatment of acute myocardial infarction (heart failure), acute uncompensated diabetes mellitus type II, care for severely traumatized patient at ICU and surgical treatment of acute cholecystitis. Further discussion may bring up new suggestions. The general rule is to include those diseases where local or internationally recognized guidelines exist (see the list of guidelines in the Attachment III). The activity will also focus on adopting/developing indicators of the guideline compliance.

The third group will build up on existing patients and staff satisfaction questionnaires. If such a tool does not exist in the hospital then one from the hospital in Humenne will be suggested to be used.

Over a year sufficient amount of data should be collected by the hospital staff (quality management) and aggregated into the Hospital Quality Report. This will be used as a background to initiate a discussion within the organization and prepare a stage for external auditing process. In the case of trauma care an approach of British TARN will be employed. In case of Diabetes and MI the indicators will be compatible with the ones used in Netherlands and US. The surgical treatment will be evaluated mostly for complications, re operations, and outcome.

**The Guidelines**

As it could be seen from the AGGREE based evaluation of guidelines currently available in Slovakia, there are many features to be elaborated in new versions. Special attention should be paid to the methodology of development and transparency of the process. Also number of guidelines has to be increased.

# VI. EXECUTIVE STEPS FOR THE MATRA PROJECT

## A. Lessons Learned

There are few lessons learned from the previous activities, such as:

- Number of activities failed to sustain because of missing political will, non existing regulations or legislation to require activities. Also inability to institutionalize quality processes had led to a situation when many people who were trained and ready to start implementing quality processes has left the field.
- Low level of societal recognition of the issue along with political instability and insecurity of leaders did not stimulate people to care for quality.
- Education on quality of care is rudimentary in all medical schools as well as in many schools of public health.

Based on these facts as well as on results of the first year we are going to orient the next year of activities toward outlining a comprehensive system of quality targeting four principal audiences: national health policy makers, hospital management, General Practitioners and the management of health insurance companies. Within the audience personnel of newly established Agency for Health Care Supervision, teachers from universities and members of professionals' societies will be offered participation.

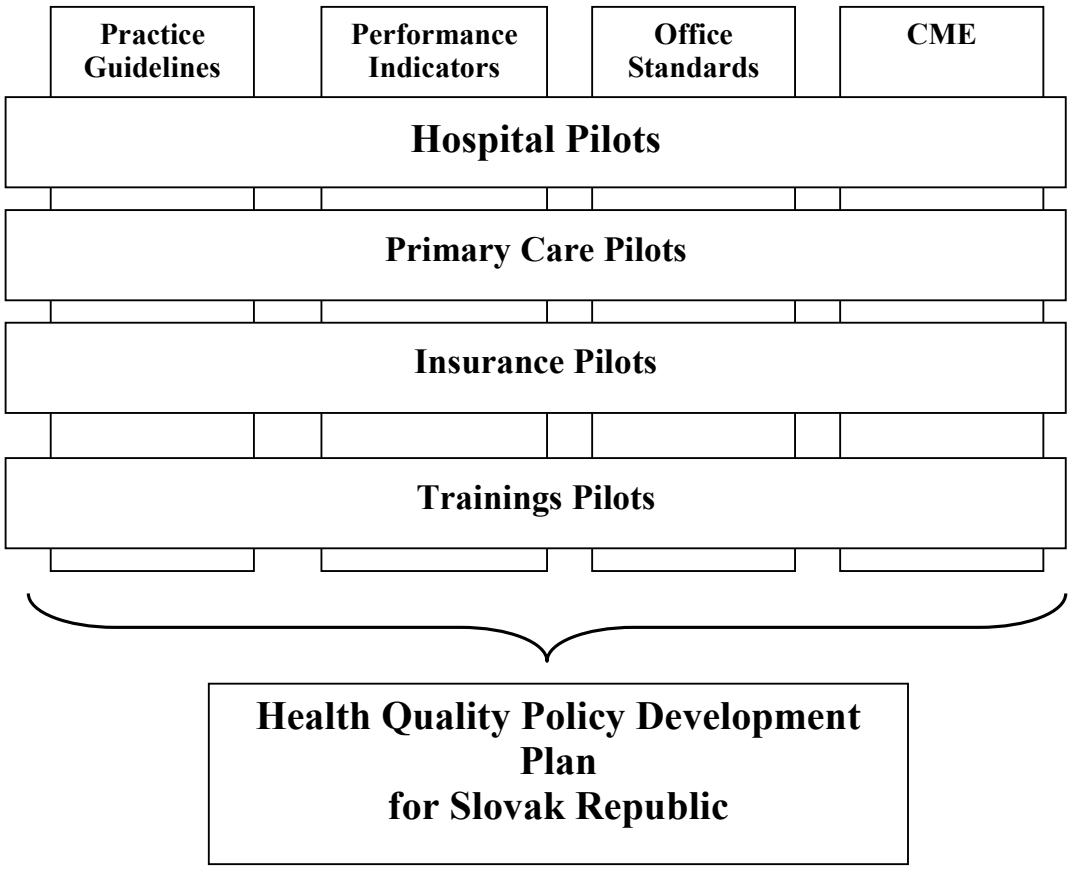


**Figure 2 The second year project structure**

## B. Practice Guidelines

As it could be seen from the AGREE based evaluation of guidelines currently available in Slovakia, there are many features to be elaborated in new versions. Special attention should be paid

to the methodology of development and transparency of the process. Also number of guidelines has to be increased.

The project will concentrate its activities on following areas:

- *Identify clinical areas and procedures* where guidelines are perceived as needed in both hospitals and PHC practices, taking into account views from insurance companies;
- *Identify* local guidelines if such exists or *select* from international ones, *evaluate* them using the AGREE instrument, *fill in gaps* identified via AGREE, and *translate* the resulting guidelines into Slovak;
- *Implement* guidelines and *evaluate* the outcome. If possible develop *indicators* of the guidelines *compliance*.

Specific approach will be carried out with insurance companies. They would be helped to formulate their guidelines procedures and a policy of guidelines development in cooperation with the NIKI will be outlined. The emphasis will be in defining explicit criteria for guidelines on procedures reimbursed by the insurance as well as economic and managerial processes involved. Also the process of peer reviews and external auditing will be prepared.

## C. Performance Indicators

**National indicators** of health care performance will be based on the OECD indicators set. The Ministry of Health was already asked to collect data and the project will be instrumental in analyzing and interpreting the findings if requested.

### Hospital Indicators

The pilot in hospitals will focus on three levels of indicators usage/development:

1. Quality of care for hospital performance
2. Quality of specialized care (diagnosis)
3. Patients and staff satisfaction.

The basis for all three of them will be taken from PATH, Slovak and Dutch collection of indicators (see Appendix). Hospitals (see the list in Appendix) will be asked to specify areas of interest where the indicators will be primarily collected and interpreted. The set will be probably enriched with indicators of cost-effectiveness, hospital infections, and proportion of lab tests on the overall costs for the first group. The second group will focus on the most costly or most socially important group of diseases or syndromes. Among the candidates for a discussion the treatment of acute myocardial infarction (heart failure), acute uncompensated diabetes mellitus type II, care for severely traumatized patient at ICU and surgical treatment of acute cholecystitis. Further discussion may bring up new suggestions. The general rule is to include those diseases where local or internationally recognized guidelines exist (see the list of guidelines in the Attachment III). The activity will also focus on adopting/developing indicators of the guideline compliance.

The third group will build up on existing patients and staff satisfaction questionnaires. If such a tool does not exist in the hospital then one from the hospital in Humenne will be suggested to be used.

Over a year sufficient amount of data should be collected by the hospital staff (quality management) and aggregated into the Hospital Quality Report. This will be used as a background to initiate a discussion within the organization and prepare a stage for external auditing process. In the case of trauma care an approach of British TARN will be employed. In case of Diabetes and MI the indicators will be compatible with the ones used in Netherlands and US. The surgical treatment will be evaluated mostly for complications, re operations, and outcome.

The collection of indicators and developed skills in managerial processes which follow will be continued with suggestions on developing the hospital's Quality Report.

**PHC Indicators**

Similar process will be executed with selected PHC practices: areas of interest, selection of indicators, training in the management of changes, Quality Report. However, it is expected that the process will be not so exhaustive as in the previous case.

## D. Health Insurance

The main objective for health Insurers and the regional government is the development of performance indicators and the role of health insurance and regional government under the new Health insurance and Health Care surveillance authority act

Under the act the roles of the parties will substantially change. The health insurance companies will have to start purchasing activities and base them on quality indicators. The regional government will have to redefine its role in the health insurance system. They possess hospitals and they are responsible for the long term care provision.

The health insurance companies are not yet equipped for this new role. They will have to reorganize their organization and build purchase departments; they need to establish sets of indicators, both financial and on quality, to use in their strategic purchasing. They also have to redefine their strategic role to the regional government on the position of the regional hospitals and on the connection between short and long term care.

Care purchasing is not an easy job to learn. Health care is a complex field and the different interests of the stakeholders (government, care providers, patients) always lead to public en political debate. Health insurance companies have a responsibility for the functioning of the system as a whole (accessibility, quality and expenditures). They also are normal companies under market conditions.

The current organization of health insurance companies do not met the required condition for the new future. They have to reorganize not only their purchase activities but also their collecting and declaration systems, their registration and the connection between care purchasing and the back office. Arrangements with care providers have to be implemented in the registration and declaration system. They have to gather statistic information on the use and the delivered quality of care, they have to strengthen the role and position of the patients in the system and they have to develop their marketing and sales, their communications (in writing, by telephone, by e-mail and by internet)

Activities to be undertaken between February and August 2005

1. working visit of health insurers to NL
    a. introduction on health insurance organizations
    b. introduction on health care purchasing
    c. workshop on quality indicators and quality systems for care purchasing
    d. workshop on statistical data and analysis (premium calculation, cost analysis, quality assessment and analysis)
    e. workshop on registration, administration and planning and control
    f. workshop on marketing and sales and communication
2. workshops in Slovakia
    a. expansion of the workshops in NL
    b. workshops with representatives of regional governments

## E. Office Standards

Existing office standards will be reviewed by the project's experts and a suggestion for eventual changes will be developed. This will be discussed with the group of GPs. The results will be tabulated in a form of a suggestion to the MoH.

## F. CME

Existing process of CME was already reviewed and suggestions will be made by the project. The suggestions will be discussed with the Slovak authorities before submitting them to the MoH.

## G. Education and Training

**Purpose**

HMS quality management curricula adjustment and pilot trainings realization. Utilization and dissemination of collected materials, accumulated knowledge and experiences - results of international project team activities during the MATRA Quality project is envisaged. HMS will serve as learning resource centre with the aim to support sustainability of the project.
Principle target groups:

- Insurance companies' employees;
- Hospitals pilots- quality managers, auditors and eventually peer reviewers;
- Regional governments and governance bodies, representatives of professional organizations;
- Patients' representatives;
- (Trainers).

**Insurance companies / purchasing**

The aim is to empower purchasing activities in

- collecting and declaration systems;
- registration and the connection between care purchasing and the back office;
- arrangements with care providers and its implementation in the registration and declaration system;
- gathering statistic information on the use and the delivered quality of care;
- to strengthen the role and position of the patients ;
- developing their marketing and sales;
- communications (in writing, by telephone, by e-mail and by internet).

**Target groups**: marketing department staff, inspection physicians, analysts.

**2. Hospitals pilots**

The **aim** is to support internal quality improvement activities, support and make more powerful quality managers and eventually units of quality within hospitals, to continue in WHO PATH initiatives.
**Specific target groups**: Quality managers - internal auditors, training managers and HR mangers eventually communication training for peer reviewers- "visitation teams" candidates.

**Content**

- Models of quality and overview external systems of quality;
- quality indicators;
- EBM principles, guidelines and clinical protocols implementation;
- CME, IPD, CPD securing, assuring within the organization;
- communication, feed back/empowerment, governance and presentation skills;

- team building, excellence concepts and centers development ;
- anti stress, anti hostility training, self management, "calming" techniques;
- managerial ethics;
- communication, negotiation with insurance companies and others stakeholders;
- project management.

3. **Regional governments' representatives and others stakeholders**

The **aim** is to involve governance bodies in to quality initiatives, support dialog among stakeholders inclusive professional organizations, and medical chamber.

**Content**

- skills in communication of quality policies with public;
- complains treatment related to health problems;
- governance and communication skills in general could be beneficial for this target group.

Trainings will be organized with participation of insurance companies , MoH, eventually patients groups.

**4. Patients' representatives**

The **aim** is to involve consumers actively to quality initiatives

**Content**

- relevant information about quality for public;
- patients requirements and patient involvement eg. panels, forums etc.

Possible participation with other stakeholders in integrated training activity devoted to quality in health care.

**5. Training of trainers workshop**

The **aim** is to reinforce management training capacities, increase trainer capacities.

# VII. APPENDICES

## A. Contents of the Project's Database of Documents

### Guidelines

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| | www.leitlinien.de/clearingverfahren/e | | Homepage | 0 |
| Agree Instrument | Jako Burgers | St. George`s Hospital Medical | | 2001 |
| Guidelines for Rational Farmacotherapy | Holoman, Glasa | | Brochure | 2002 |
| Guidelines for Rational Farmacotherapy: | Holoman, Glasa | BoArt-Bedrich Schreiber | Brochure | 2000 |
| Guidelines for Rational Farmacotherapy: Diabetes Mellitus I. | Martinka Emil | | Brochure | 2004 |
| Guidelines for Rational Farmacotherapy: Peptic ulcer | Jurgos Lubomir | | Brochure | 2004 |
| National Guideline Clearinghouse - NGC | www.guideline.gov | | Homepage | 0 |
| National Guidelines for Chronic obstructive Lung disease | Slovak Medical Association | | Brochure | 2001 |
| National Guidelines for optimal diagnostics and treatment of Bronchial | Slovak Medical Association | | Brochure | 1996 |
| National Institute for Clinical Excellence - NICE | www.nice.org.uk | | Homepage | 0 |
| Quality of care in stroke prevention | Johan De Koning | Print Partners Ipskamp Enschede | PhD. Thesis | 2003 |
| Quality programs and standards therapeutical procedures I,II - practical | Bourek Ales, Forytkova Lenka | Dashofer | Book | 2004 |
| Standard diagnostical procedures | Trnovec, Dzurik | Osveta, Martin | | 1998 |

### Health information

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Health news - Zdravotnicke noviny | Zarecky Ludovit | Sanoma Slovakia | Journal | 2004 |

### Health system

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| The London NHS | Lesley Mc Caughey | European Bussiness Sector | Presentation | 2004 |

| | | | | |
|---|---|---|---|---|
| Visitatie of medical specialists | Kiki Lombarts | | PhD. Thesis | 2003 |

**Homepage**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| | | | gmc-uk.org/standards/good.htmHomepa | |
| Q&A list:Agis Careservice Individually &Collective | www.agisweb.nl | AGIS | Homepage | 0 |
| www.cbo.nl/algemeen/english/default_view | | | Homepage | 0 |
| www.efqm.org | | | Homepage | 0 |
| www.hkz.nl/english.jsp | | | Homepage | 0 |
| www.ncehr-cnerh.org/english/gcp | | | Homepage | 0 |
| www.niaz.nl/en | | | Homepage | 0 |
| www.sign.ac.uk | | | Homepage | 0 |
| ZonMw,www.zonmw.nl | | | Homepage | 0 |

**Hospital system**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Quality management in health care institutions | Madar Jiri | GRADA | Book | 2004 |
| International Hospital Accreditation Standards | Joint Comision International | GRADA SLOVAKIA | Book | 2002 |

**Indicators**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Design for a set of community health indicators | | | | 2004 |
| Evaluation of health organisations, (slovak language) | Kralik Jan | SANIGEST | Presentation | 2004 |
| www.isqua.org | | ISQUA | Homepage | 2004 |

**Indicators, PATH**

| Title | Author | Publisher | Source | Year | |
|---|---|---|---|---|---|
| Operational definitions and data collection for indicators in the core set | WHO | | | 0 | |
| Tailored set of indicators quality improvement in hospitals | WHO | | | 0 | Th |

**MATRA products**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| An overview of external quality assessment models | Lombarts Kiki | EQA workshop | Presentation | 0 |
| Building Quality Developmnet Program in Slovakia | Heijdelberg Erik | | Presentation | 2004 |
| First Quarterly report | Heijdelberg Erik | | Report | 2004 |
| How to introduce quality management? | Rusnakova Viera | EQA workshop | Presentation | 0 |
| Inception report | | | Report | 2004 |
| Johan De Koning | Clinical Practice Guidelines in the | | Presentation | 2004 |
| Policies to assure and improve the quality of care | Klazinga Niek | | Presentation | 2004 |
| Project flow, presented on second meeting of Task Force | Klazinga Niek | | Presentation | 0 |
| Quality in HC and Purchasing | Boon Maarten | AGIS | Presentation | 2004 |
| Quality management in Slovakia: an overview of activities since 1990 | Rusnak Martin | EQA workshop | Presentation | 0 |
| Quality: the key part of the reform | Szalay Tomas | EQA workshop | Presentation | 2004 |
| Strategic purchasing for quality | Klazinga Niek | | Presentation | 2004 |
| Third quarter progress report | Heijdelberg Erik | | Report | 2004 |
| Why introducing external quality assessment? | Klazinga Niek | EQA workshop | Presentation | 0 |

**MoH, SR**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Ozdravene zdravotnictvo v sluzbach obcanov (only in slovak): Story of the | Pazitny, Zajac | | Book | 0 |

| | | | | |
|---|---|---|---|---|
| Register(catalogue) of medical procedures | Findo Peter | | Presentation | 2004 |
| Act on the Scope of Health Care Covered by the Public Health | MoH, SR | MoH, SR | Act | 2004 |
| Emergency Services Act | MoH, SR | MoH, SR | Act | 2004 |
| Health Care Act | MoH, SR | MoH,SR | Act | 2004 |
| Health Care Providers Act | MoH, SR | MoH,SR | Act | 2004 |
| Health Insurance Act | MoH, SR | MoH, SR | Act | 2004 |
| Health Insurance Companies and Surveillance Authority Act | MoH, SR | MoH, SR | Act | 2004 |

**NL visit**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| AGIS integrates Quality aspects into contracts with hospitals | Uhlenhop Bea | AGIS | | 0 |
| Bridging the quality Chasm: Integrating professional and | Berg Marc, Schellekens | VWS, NL | Arcticle | 0 |
| Bulletin of Acts and Decrees of the Kingdom of The Netherlands 1996 | VWS,NL | | Brochure | 0 |
| CBO:25 years of quality improvement - Vision of Q | CBO, www.cbo.nl | | Brochure | 2004 |
| Consumer assessment health plan survey | Vriens Barbra | AGIS | Presentation | 2004 |
| DBC registration and Billing 2004 | Hofdijk Jacob | AGIS | Presentation | 0 |
| DBC:Diagnosis and treatment combination | AGIS | | Arcticle | 2004 |
| Documentation: Quality of care | periodical of VWS, NL,February | | | 1997 |
| Health technology assessment from national and international policy | Eilers | VWS, NL | Arcticle | 0 |
| HKZ-ISO certification in dutch HC and Welfare | Corinne de Jonge | HKZ | Presentation | 2004 |
| Choosing with care: The equipping of patients and consumers in demand | International publication series | VWS, NL | Arcticle | 0 |
| Improvement of efficiency | Hutten Jack | VWS,NL | Presentation | 2004 |
| Medicines policy in NL | International publication series | VWS, NL | Arcticle | 0 |
| Pay for performance | Boon Maarten | AGIS | Presentation | 2004 |

| | | | | |
|---|---|---|---|---|
| Paying physicians for high quality care | and col. | Journal of | | Epstein M. Arn |
| Policy items of Ministry of Health Welfare and Sport | | VWS, NL | Arcticle | 0 |
| Public health supervisory service | Plokker Herbert | HC Inspectorate, NL | Presentation | 2004 |
| Quality and Safety | International publication series | VWS, NL | Arcticle | 0 |
| Quality management in medical specialties - The use of channels and | Klazinga, Lombarts, | The Joint Commision | Arcticle | 0 |
| Quality of care | Documentation VWS, May | VWS, NL | Arcticle | 2002 |
| Supervision in The Netherlands | Council of Inspectors General | VWS,NL | Brochure | 2004 |
| Supporting breakthrough improvements of patient care | Cucic Suyle | CBO | Presentation | 2004 |
| The business for quality,case study | Leatherman Sheila and col. | | Arcticle | 2003 |
| The Dutch HC reform towards privat HC for all | Geert Jan Hamilton | VWS,NL | Presentation | 0 |
| The Health Care reform 2002 - 2004, Slovak republic | Hlavacka Svatopluk | MoH, SR | Presentation | 2004 |
| Value based purchasing | Maio Vittorio and col. | | Arcticle | 2003 |
| Why medical care has not evolved to meet patients needs | Coye Molly Joel | | Arcticle | 2004 |

**Presentation**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Quality in health care | Stofko Juraj | | Presentation | 2004 |
| Research training in medicine and health sciences | Netherlands institute for health | | | 2004 |

**Quality**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Data, Services, Quality - DSQ | American- Slovak cooperation/USAID | Book&Book | Book | 1995 |
| Data, Services, Quality - DSQ | American- Slovak cooperation/USAID | Book&Book | | 1995 |
| Development Quality System in Health Service and P | Pesek Jaromir | GRADA | Book | 2003 |

**Slovak Medical Library Guidelines**

| Title | Author | Publisher | Source | Year |
|---|---|---|---|---|
| Biomedical research ethics: Updating international guidelines | Palat M. | Geriatria | Arcticle | 0 |
| Therapy and follow-up of CIN. The proposal of guidelines | Stefanovic J. | Prakticka gynekologia | Arcticle | 0 |
| (CME) guidelines of the European assotiation of Radiology | Europska radiologicka | Slovenska radiologia | Arcticle | 0 |
| 70th congres of European society for atherosclerosis… | Raslova Katarina | Kardiologia | Arcticle | 0 |
| About guidelines for prevention, diagnostics and treatment of HP JNC | Corejova A. | Pharm journal | Arcticle | 0 |
| Arthrosis therapy of knee –joint, Guidelines EULAR | ou | Lekarske listy | Arcticle | 0 |
| Best medical practice in Europe. 2,3,4,5,6 | Krchnak S. | Lekarnicke listy | Arcticle | 0 |
| Biomedical research ethics: updating international guidelines | | Eurirehab. | Arcticle | 0 |
| Catastrophic antiphospholipid syndrome: guidelines for diagnosis | Cervera R. | Rheumatologia | Arcticle | 0 |
| CIOMS: International Ethical Guidelines for Biomedical research | Glasa J. | Medicinska eitka a bioetika | Arcticle | 0 |
| Computer workplaces and healthy life style | Belak Peter | Parlamentny kurier | Arcticle | 0 |
| Data reliability of clinical trials: What are the professional and ethic | Gibala Pavol | Zdravotnicke noviny | Arcticle | 0 |
| Discussion on guidelines for diagnostics and treatment of HP | Balazovjech Ivan | Kardiologia | Arcticle | 0 |
| Drug legislation EU. 21, Guideline of European parliament and Council | Slany J. | Farmaceuticky obzor | Arcticle | 0 |
| Drug legislation of EU XIX, Regulation of Government | Slany J. | Farmaceuticky obzor | Arcticle | 0 |
| EAU guidelines on bladder cancer | Hornak M. | Urologia | Arcticle | 0 |
| EAU guidelines on penile cancer carcinoma | Marencak J. | Urologia | Arcticle | 0 |
| EAU guidelines on testicular cancer | Cuninkova M. | Urologia | Arcticle | 0 |
| EAU guidelines on urolithiasis | Nagy V. | Urologia | Arcticle | 0 |
| Ergometrics : guidelines for clinical practice | Slovenská kardiologická | Kardiologia | Arcticle | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Evidence needs. National and international guidelines for treatment | Pauwels | Respiro | Arcticle | 0 | |
| Guidelines EÚ for medical profession | Kloiber | Konzilium | Arcticle | 0 | |
| Guidelines for accreditation | Buday J. | Diagnoza | Arcticle | 0 | |
| Guidelines for diagnostics and therapy Chronical Obstructive Lung Disease | Chovan L. | Interna medicina | Arcticle | 0 | |
| Guidelines for optimal dg and th of hyperlipoproteinemia of adults- | Raslova Katarina | Zdravotnicke noviny | Arcticle | 0 | |
| Guidelines for optimal dg and th of hyperlipoproteinemia of adults- | Rašlová Katarína | Kardiologia | Arcticle | 0 | |
| Guidelines for standardisation of surgery procedures in oncogynecology | Mlyncek M. | Slovenská gynekológia a | Arcticle | 0 | |
| Guidelines of European Urology Association- Diagnostic and | Hornak M. | Urology | Arcticle | 0 | |
| Health care tools in legislation of EU. VI | Slany J. | Farmaceuticky obzor | Arcticle | 0 | |
| Health facilities in EU legislation. IV, | Slany J. | Farmaceuticky obzor | Arcticle | 0 | |
| Health facilities in EU legislation. V, | Slany J. | Farmaceuticky obzor | Arcticle | 0 | |
| Implementation guidelines for effective management of hospital | Bruchacova Z. | Bratislavske lekarske listy | Arcticle | 0 | |
| Management, organisation and control of safety and protection of | | Poradca | Arcticle | 0 | |
| Metodical letter - section respiratory diseases | Kristufek Peter | Neonatologicke zvesti | Arcticle | 0 | |
| MoH approach to proposal layout of metodical letters (guidelines) | Szalayova A. | Interna medicina | Arcticle | 0 | |
| National guidelines for diagnostics and treatment of chronical patients | | Recipe | Arcticle | 0 | |
| National Guidelines for optimal dd and th of Chronical Obstructive Lung | Kristufek P. | Respiro | Arcticle | 0 | |
| National Cholesterol educative Ethical codex | Kollar J. | Ateroskleroza noviny | Arcticle | 0 | N |
| New Guidelines for acute coronary syndrom | | Zdravotnicke noviny | Arcticle | 0 | |
| New guidelines for HP treatment | | Zdravotnicke noviny | Arcticle | 0 | |
| New trends in appraising of environmental influences in EU | Kozova Maria | Zivotne prostredie | Arcticle | 0 | |
| Opinion to Guidelines JNC for preventions, detection and therapy of | Balazovjech I. | Kardiologia | Arcticle | 0 | |
| Opinion to Guidelines JNC for | Balazovjech I. | Slovensky lekar | Arcticle | 0 | |

| | | | | |
|---|---|---|---|---|
| preventions, detection and therapy of | | | | |
| Opinion to GuidelinesCommitee for preventions | Balazovjech I. | | | 0 |
| Recommendations regarding to treatment of CHOCHP | Ferguson | Respiro | Arcticle | 0 |
| Selection from International guidelines 2000 for CRP and ECC | Krizan J. | Nemocnica | Arcticle | 0 |
| The NCEP adult treatment panel, III guidelines | Litomericky S. | Slovensky lekar | Arcticle | 0 |
| Therapy GERD and international Guidelines | Mosnarova A. | Kompendium mediciny | Arcticle | 0 |
| There is a need for Guidelines implementation for physicians and | Sipeky, Zajac | Zdravotnicke noviny | Arcticle | 0 |
| Treatment guidelines: esophageal varices | Hrusovksy S. | | Arcticle | 0 |
| Up- dating of Guidelines on dangerous substances | Dejmalová Michaela | Ropa a uhlie | Arcticle | 0 |
| WHO Guidelines 1999/2000 for HP | | Farmaceuticky | Arcticle | 0 |

## B. List of Guidelines from the Slovak Medical Library

a) Guidelines for optimal diagnostics and therapy of hyperlipoproteinemia of adults - cholesterol consensus. Rašlová, Katarína, Turay, Jozef, Mikeš, Zoltán
b) Data reliability of clinical trials: What are the professional and ethic requirements for new drugs development? Gibala, Pavol, Krištofová, Alena, Martinec, Ľudovít
c) Cholesterol consensus : guidelines for optimal diagnostics and therapy of hyperlipoproteinemia. Rašlová, Katarína, Turay, Jozef, Mikeš, Zoltán
d) Computer workplaces and healthy life style. Belák, Peter
e) 21. Up- dating of Guidelines on dangerous substances. Dejmalová, Michaela, Valdauf, Jiří
f) Management, organisation and control of safety and protection of health at work: guidelines template.
g) Discussion on guidelines for diagnostics and treatment of HP . Balažovjech, Ivan
h) Ergometrics : guidelines for clinical practice. Slovenská kardiologická spoločnosť(Slovak society of cardiology).
i) 70th congress of European society for atherosclerosis: familiar hypercholesterolemia, MED-PED project, guidelines for Ischemic heart failure prevention. Rašlová, Katarína
j) New trends in appraising of environmental influences in EU Kozová, Mária, , Gašparíková, Božena, , Úradníček, Štefan, , Vrbenský, Rastislav, -, Beláčková, Ingrid
k) About guidelines for prevention, diagnostics and treatment of HP JNC VI. Čorejová, A., Longorová, Z., Švec, P., Kyselovič, J.
l) Best medical practice in Europe. 2. Krchňák, Š.
m) Best medical practice in Europe.. 3. Krchňák, Š.
n) Best medical practice in Europe.. 4. Krchňák, Š.
o) Best medical practice in Europe.. 5. Krchňák, Š.
p) Recommendations regarding to treatment of CHOCHP. Ferguson, Gary T.
q) Health facilities in EU legislation. V, Regulation of European parlament and Council number č. 98/79/ES z 27. October 1998 relating to diagnostical health facilities in vitro (Part II.) Slaný, J.
r) Guidelines EÚ for medical profession. Kloiber, Otmar
s) Best medical practice in Europe. 6. Krchňák, Š.
t) Health facilities in EU legislation. IV, Regulation of European parlament and Council number č. 98/79/ES z 27. October 1998 relating to diagnostical health facilities in vitro (Part I.). Slaný, Jozef
u) Evidence needs. National and international guidelines for treatment of CHOCHP. Pauwels, Romain
v) Best medical practice in Europe. Krchňák, Š.
w) New guidelines for HP treatment
x) National guidelines for diagnostics and treatment of chronical patients. Methodic letter - section respiratory diseases. Krištúfek, Peter
y) WHO Guidelines 1999/2000 for HP treatment – more strict criteria
z) Drug legislation of EU XIX, Regulation of Government (EHS) #. 2309/93 from 22nd July 1993 which is basement of the practices of Society for drug registration and surveillance for human and veterinary use. Slaný, J.
aa) New guideline and complement of Ethical codex
bb) Health care tools in legislation of EU. VI : Guideline of European parliament and Council #. 2000/70/ES from 16th November 2000, which changes guideline of Council #. 93/42/EHS and is related to health care tools, containing stabil derivates. Slaný, Jozef
cc) Guidelines of European Urology Association- Diagnostic and therapeutical procedures. Horňák, Michal
dd) Drug legislation EU. 21, Guideline of European parliament and Council #. 2001/20/ES from 4th April 2001 ... Slaný, J.
ee) There is aneed for Guidelines implementation for physicians and reduce Drug manual: solutions in drug policy should include capitation tax for patient and changes in drug pricing. Šipeky, Ján, Zajac, Rudolf
ff) Guidelines for accreditation. Buday, Jozef
gg) CIOMS: International Ethical Guidelines for Biomedical Research Involving Human Subjects Glasa, Jozef
hh) EAU guidelines on testicular cancer Cuninková, Martina
ii) EAU guidelines on renal cell carcinoma. Valanský, Ladislav
jj) New Guidelines for acute coronary syndrom
kk) National Guidelines for optimal diagnostics and therapy Chronical Obstructive Lung Disease in SR : inovation of Guidelines from 1997 based on Global initiative CHOCHP. Krištúfek, P., Chovan, L.
ll) MoH approach to proposal layout of metodical letters (guidelines) Szalayová, A.
mm) Guidelines for diagnostics and therapy Chronical Obstructive Lung Disease worldwide and in SR . Chovan, L.
nn) National Cholesterol educative program. Kollár, J., Turay, J., Kupperová, Ľ
oo) National Guidelines for optimal diagnostics and therapy Chronical Obstructive Lung Disease in SR : (inovation of Guidelines from 1997 na základe based on Global initiative - GOLD) Bratislava, 2001. Krištúfek, P., Chovan, L.
pp) Arthrosis therapy of knee –joint, Guidelines EULAR. Therapy GERD and international Guidelines. Mosnárová, Alena

qq) Opinion to Guidelines Joint National Commitee for preventions, detection and therapy of HP (JNC VI). Balažovjech, Ivan

rr) Opinion to Guidelines Joint National Commitee for preventions, detection and therapy of HP (JNC VI.) Balažovjech, Ivan

ss) Continuing medical education (CME) guidelines of the European assotiation of Radiology / UEMS Radiology section and board. European Society for Radiology

tt) Implementation guidelines for effective management of hospital accreditation. Brucháčová, Z.

uu) Guidelines for standardisation of surgery procedures in oncogynecology. Mlynček, M., Kállay, J., Masák, L., Bazovský, P.

vv) Selection from International guidelines 2000 for CRP and ECC. Križan, Ján

ww) R.J. Levine, S. Gorowitz, J. Gallagher: Biomedical research ethics: Updating international guidelines. Palát, Miroslav

xx) Biomedical research ethics: updating international guidelines

yy) Treatment guidelines: esophageal varices. Hrušovský, Štefan

zz) EAU guidelines on bladder cancer. Horňák, Michal

aaa) Catastrophic antiphospholipid syndrome: guidelines for diagnosis and treatment. Cervera, R., Asherson, Ronald A., Rovenský, J.

bbb) EAU guidelines on penile cancer. Marenčák, Jozef

ccc) EAU guidelines on urolithiasis. Nagy, Vincent

ddd) Therapy and follow-up of CIN. The proposal of guidelines. Štefanovič, Július, 1933-, Potančok, Branislav, Sadovský, Oliver, Gavorník, Ľuboslav, Nižňanský, Bohumil

eee) The NCEP adult treatment panel, III guidelines. Litomerický, Š.

## C. Continuing Medical Education

Table 1 Comparison of main features of CME models in Europe and USA

| Country | GB | Ireland | Germany | Austria | Italy | USA | Slovenia | Czech Republic |
|---|---|---|---|---|---|---|---|---|
| **Constituency, participation** | Royal College and Academy of Medical Royal Colleges | Irish Medical Council | German Medical Association - Medical Education Senate, Regional Chambers of Physicians, Health Insurance Agencies influence | Medical Chamber and Arztakademie | Ministry of Health, with CME commission, local accredited providers 60% local health authority, 40 % other providers, support of Italian Medical Association | American Medical Association , 54 state medical boards; 2500 accredited providers; shift to the concept of CPD | Medical Chamber authorised by the Ministry of Health and cooperation with Medical Society | Medical Chamber from the law as a national authority; specialist societies, universities and postgraduate medical school, |
| **Regulation** | General Medical Council | Irish Medical Council | State -Regional Chambers of Physicians | Medical Chamber | Ministry of Health | State Medical Boards | Medical Chamber authorised by the Ministry of Health | Medical Chamber as a national authority |
| **Type (obligatory/voluntary)** | No voluntary (but not universally amendatory) | Mandatory | Voluntary | Mandatory from 1995 | Mandatory from 2002 | Mandatory, exam every 7 years. Remedial activities | Mandatory, recertification, Medical Chamber awards licences for 7 years | Mandatory |
| **Funding** | Government | Public health - 10 working days paid leave + financial grant; private practice on they own | ?, | Participants | 250-750 Euro for event, pharmaceutical industry support | | Government contributions and | Participants Co – payment |
| **Criteria** | 250 credits/5 years external activities (conferences) and internal (local and self directed) CPD | CME/CPD 60% ; audit 20%; peer review 20%; 250 points / 5 years 1credit per 1 hour of education | 150 credits within 3 years for certificate valid for 3 years recommended CME activities – lectures and discussions congress workshops, interactive education (print, CD, Internet) self study, hospitation work as an author and lecturer | 3 year cycle of 150 points ) equivalent to hours, minimum of 120 points, related to certified CME events (congresses , peer review, literature studies of online distance learning, with exam , 30 points individually chosen CME | Variation maximum 10 credits for full day requirement up to 150 points / 3 years period | Category 1 CME activities sponsored by accredited organisation for CME by accreditation council + other CME - self instruction audio-visual materials consultation DB and computer based materials 12 – 50 hours per year | 75 credits in accredited forms of CME/CPD | Credit system over 5 years, also distance learning allowed and accepted, |

| Country | GB | Ireland | Germany | Austria | Italy | USA | Slovenia | Czech Republic |
|---|---|---|---|---|---|---|---|---|
| **Comments** | Peer review, visitation for GPs proposed but limited financial resources | 3 levels<br>- for all doctors;<br>- groups at risk ;<br>- remedial process | Nation wide mutual recognition of credits | | Transition, privatisation of hospitals .<br>all healthcare workers to be involved, … | Mandatory content in some states – risk management medical ethics, HIV/ AIDS | Attempt to establish audit and peer review system (2,5% of doctors yearly) | Recertification regarded as dangerous and bureaucratic |
| **Internet/distance learning utilisation** | in rapid development … | in development | interactive education (CD, Internet) | www.artzakademie.at | Distance learning, E learning under the development in regions , cooperation with Switzerland in Lombardy r. | List of providers on web , distance learning activities available | Global standards for CPD attempt to establish, system of quality of health care provision (every 2 years renewing of individual doctor | |
| **System of quality appraisal** | + clinical governance mechanisms of appraisal | | | | Recognised as big problem | Accreditation of providers involved requirement of CME in JCAHO scheme | Within the broader project quality of medical practise -results under discussion | Several initiatives in quality inclusive clinical guidelines , JCAHO model, ISO |

**References:**

www.uems.net
www.saccme.sk
Facts About Continuing Medical Education Regulation 201 KAR 9: 310
Continuing Medical Education for Licensure Reregistration, State Medical Licensure Requirements and Statistics, USA , 2004 / 45
Development and Structure of National CME/CPD Annex D 035 UEMS, 2003
Charter On Continuing Medical Education in Rheumatology. UEMS Rheumatology CME Charter (2000)

# D. Evidence Based Medicine related resources

**International organisations**

**G-I-N**
The Guidelines International Network is an international not-for-profit association of organisations and individuals involved in clinical practice guidelines. Founded in November 2002, G-I-N has now grown to 53 member organisations including WHO from 26 countries. G-I-N seeks to improve the quality of health care by promoting systematic development of clinical practice guidelines and their application into practice, through supporting international collaboration. G-I-N's Guideline Library contains regularly-updated information about guidelines of the G-I-N membership. In December 2004 about 2,700 programmes are available.
G-I-N''s aims are: to facilitate information sharing, education and knowledge transfer, and collaborative working between guideline programmes to promote best practice and avoid duplication of effort. To improve and harmonise methodologies for systematic guideline development in existing and new guideline programmes.
To improve methodologies for dissemination and implementation of clinical practice guidelines and evaluation of their effects. To identify priorities for and support research relating to guideline development, dissemination, implementation, and evaluation; and to facilitate the application of research findings into practice.
The Guidelines International Network is a Scottish Guarantee Company, established under Company Number SC243691 and is also a Scottish Charity, recognised under Scottish Charity Number SC034047. Registered Office at J. & H. Mitchell W.S., 51 Atholl Road, Pitlochry, Perthshire PH16 5BU, Scotland, UK.
G-I-N has its Office at the German Agency for Quality in Medicine (Aerztliches Zentrum fuer Qualitaet in der Medizin), Wegelystr. 3 / Herbert-Lewin-Platz, 10623 Berlin, Germany. Phone: +49-30-4005-2500, Fax: +49-30-4005-2555

**Agree collaboration**
AGREE stands for "Appraisal of Guidelines Research and Evaluation". It originates from an international collaboration of researchers and policy makers who work together to improve the quality and effectiveness of clinical practice guidelines by establishing a shared framework for their development, reporting and assessment.
The AGREE Collaboration started in 1998 as a research project ‘Appraising clinical guidelines' under the Biomedicine and Health Research (BIOMED 2) Programme, funded by the European Union - www.cordis.lu/biomed/home.html . The project was coordinated by the Department of Public Health Sciences at St George's Hospital Medical School www.sghms.ac.uk and ended in June 2001. The main objective was to develop an appraisal instrument to assess clinical guidelines and to harmonise guideline development across Europe in order to minimize duplication of efforts.
In November 2002 the AGREE Collaboration received additional funding from the Accompanying Measures EU funded programme of the 5 th Framework until April 2004 to further disseminate and implement the AGREE Instrument. This was coordinated by the Department of Public Health Sciences at St George's Hospital Medical School in London. The central aim of the project was to enhance effective health care policy in Europe by promoting the diffusion of a comprehensive approach to the production, dissemination and evaluation of high-quality clinical guidelines through established networks.

**The Cochrane Collaboration**
The Cochrane Collaboration is an international non-profit and independent organisation, dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. It produces and disseminates systematic reviews of healthcare interventions and promotes the search for evidence in the form of clinical trials and other studies of interventions. The Cochrane Collaboration was founded in 1993 and named for the British epidemiologist, Archie Cochrane..
The major product of the Collaboration is the Cochrane Database of Systematic Reviews which is published quarterly as part of The Cochrane Library.
Those who prepare the reviews are mostly health care professionals who volunteer to work in one of the many Collaborative Review Groups, with editorial teams overseeing the preparation and maintenance of the reviews, as well as application of the rigorous quality standards for which Cochrane Reviews have become known.
The activities of the Collaboration are directed by an elected Steering Group and are supported by staff in Cochrane Entities (Centres, Review Groups, Methods Groups, Fields/Networks) around the world.

**International Guideline and Indicator organisations**

Australia
-National Health and Medical Research Council (NHMRC)
-The Joanna Briggs Institute

Canada
-Canadian Medical Association
-Cancer Care Ontario Practice Guidelines Initiative

Denmark
-Denmark: Danish College of General Practitioners

Finland
-Finnish Medical Society Duodecim

France
-French Federation of Comprehensive Cancer Centres (FNCLCC)
-Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES)

Germany
-Arbeitsgemeinschaft der Wissenschaftlichen Medizinschen Fachgesellschaften (AWMF)
-Ärztliches Zentrum für Qualität in der Medizin (AZQ)

Italy
-Agency for Regional Health Services (ARHS)

New Zealand
-New Zealand Guidelines Group

Sweden
-Swedish Council on Technology Assessment in Health Care (SBU)

Switzerland
-Swiss Medical Association

The Netherlands
-Dutch College of General Practitioners
-Dutch Institute for Healthcare Improvement (CBO)

USA
-Agency in Healthcare Research and Quality (AHRQ)
-Institute for Clinical Systems Improvement ICSI
-National Comprehensive Cancer Network
-National Institutes of Health (NIH)
-US Preventive Service Task Force

United Kingdom
- Centre for Health Services Research Unit of University of Newcastle upon Tyne (North of England)
- National Institute of Clinical Excellence (NICE)
- Prodigy
- Royal College of Physicians of London
- Scottish Intercollegiate Network (SIGN)

Recourse Centres for Guidelines

Australia: eMJA Guidelines
The Medical Journal of Australia offers on its website clinical guidelines published by the MJA. These documents represent the consensus opinion of experts based on review of the scientific literature.
http://www.mja.com.au/public/guides/guides.html

Canada: CMA Infobase
Guidelines displayed by the CMA Infobase are produced or endorsed in Canada by a national, provincial/territorial or regional medical or health organization, professional society, government agency or expert panel.
http://mdm.ca/cpgsnew/cpgs/index.asp

Canada: Nursing Best Practice Guidelines (NBPG), The Registered Nurses Association of Ontario
The Registered Nurses Association of Ontario (RNAO) launched the Nursing Best Practice Guidelines (NBPG) Project in November 1999 with funding from the Ontario Ministry of Health and Long Term Care. The purpose of this multi-year project is to support Ontario Nurses by providing them with Best Practice Guidelines for client care.
http://www.rnao.org/bestpractices/index.asp

Canada: Ontario Guidelines Advisory Committee (GAC)
The Ontario Guidelines Advisory Committee (GAC ), formed in 1997, develops and recommends appropriate strategies for the implementation and monitoring of practice and referral guidelines, and makes recommendations for assisting in the implementation of prescribing guidelines.
http://gacguidelines.ca/

Europe: European Society of Cardiology - Guidelines and Statements
Complete listing of all current ESC Guidelines. Information on how these guidelines are developed.
http://www.escardio.org/knowledge/guidelines/

International: AQuMed Guideline Link Collection
Links to guideline databases and organisations producing guidelines have been provided by the German Agency for Quality in Medicine - one of our Founder Members
http://www.leitlinien.de/leitlinienanbieter/fremdsprachig_en/view

International: BMJ.COM collected resources: guidelines
The BMJ Publishing Group links to guideline articles or abstracts published in the following journals: British Medical Journal, Molecular Pathology, Journal of Clinical Pathology, British Journal of Ophthalmology, Tobacco Control, Postgraduate Medical Journal, Injury Prevention, Heart, Annals of the Rheumatic Diseases, Evidence-Based Medicine, Archives of Disease in Childhood - Fetal and Neonatal Edition, Journal of Epidemiology and Community Health, Journal of Neurology, Neurosurgery, and Psychiatry, Journal of Medical Genetics, Journal of Medical Ethics, Quality and Safety in Health Care, Emergency Medicine Journal, Evidence-Based Mental Health, Archives of Disease in Childhood, Gut, Medical Humanities, Thorax, Occupational and Environmental Medicine, Evidence-Based Nursing, Western Journal of Medicine, Journal of Medical Screening, British Journal of Sports Medicine, and Sexually Transmitted Infections.
http://bmj.bmjjournals.com/cgi/collection/guidelines

International: CISMeF (Catalogage et l'Indexation des Sites Médicaux Francophones / Catalog and Index of French-language health resources)
CISMeF is a quality-controlled subject gateway initiated by the Rouen University Hospital (RUH). Its objective is to describe and index the main French- language health resources to assist health professionals and consumers in their search for electronic information available on the Internet.
http://www.cismef.org/

International: FDI World Dental Federation Guideline Database
The FDI World Dental Federation is the authorative worldwide organisation of dentistry representing more than 700,000 dentists in over 130 countries. The guidelines database contain references and links to National and International Guidelines & Statements, Position papers, Proceedings, Systematic reviews and Meta-analyses.
http://www.fdiworldental.org/resources/2_0guidelines.html

International: Geneva Foundation for Medical Education and Research - Links to Guidelines for Obstetrics, Gynecology and Reproductive Medicine
The Geneva Foundation for Medical Education and Research is a non-profit organisation established in 2002. It is supported by the Department of Health of the Canton of Geneva, the Faculty of Medicine, Geneva University, and the Geneva Medical Association, and works in close collaboration with the World Health Organization (WHO). The Foundation's website offers access to guidelines for Obstetrics, Gynecology and Reproductive Medicine in English, French, German, Italian and Spanish.
http://www.gfmer.ch/Guidelines/Obstetrics_gynecology_guidelines.php

International: Union against Tuberculosis and Lung Diseases
The UNION, founded in 1920, has as its mission the prevention and control of tuberculosis and lung disease, as well as related health problems, on a world wide basis, with a particular emphasis on low income countries. The UNION offers Technical Guides for disease managament in low income countries.
http://www.iuatld.org/full_picture/en/frameset/frameset.phtml

Italy: Programma Nazionale Linee Guida
Il Piano nazionale per le linee guida (PNLG) rappresenta, contestualmente alla definizione dei livelli essenziali di assistenza e all'accreditamento istituzionale, uno dei tre strumenti fondamentali per dare attuazione alla promozione dell'efficacia e dell'appropriatezza nella pratica clinica e nelle scelte organizzative.
http://www.pnlg.it/

Singapore Clinical Practice Guidelines
The Singapora Ministry of Health presents clinical practice guidelines for a wide range of health care topics (f.e. Colorectal Cancer, Diabetes, Depression, Asthma. Health Screening.
http://www.moh.gov.sg/corp/publications/index.do

Spain: Generalitat Valenciana - Conselleria de Sanitat
Guías de Actuación Clínica en Atención Primaria de la Comunidad Valenciana.
http://www.san.gva.es/publicaciones/gac.htm

Spain: Guias Clinicas en Gastroenterologia
El Programa de Elaboración de Guías Clínicas en Enfermedades Digestivas desde la Atención Primaria a la Especializada, es un proyecto compartido por la Asociación Española de Gastroenterología (AEG), la Sociedad Española de Medicina Familiar y Comunitaria (SEMFYC) y el Centro Cochrane Español (CCE).
http://www.guiasgastro.net/

Spain: Sociedad Española de Cardiología: Guías de Práctica Clínica
http://www.secardiologia.es/main.asp?w=1024

UK: eLSC Practice Guidance & Standards Database
The electronic library for social care is a site for anyone interested in social care issues. It is a product of the Social Care Institute for Excellence (UK), an independent organisation dedicated to disseminating knowledge to improve social care practice.
http://www.elsc.org.uk/practice.htm

UK: NeLH Care Pathways Library
This facility offers access to a database of Pathways and the organisations creating and using them. The content is maintained jointly by the National Pathways Associationand the Royal College of Nursing.
http://www.nelh.nhs.uk/

USA: National Guideline Clearinghouse?
The National Guideline Clearinghouse? (NGC?) is a public resource for evidence-based clinical practice guidelines, provided by the Agency for Healthcare Research and Quality (AHRQ), one of our Founder Members.
http://www.guidelines.gov

**Recourse Centres for Evidence Research**

Bandolier Links
A helpful list of EBM sites compiled from a list of Andrew Booth?s bookmarks.
http://www.jr2.ox.ac.uk/bandolier/bandlink.html

Centre for Evidence-based Medicine, Oxford
The Centre has been established in Oxford as the first of several centres in the UK whose broad aim is to promote evidence-based health care. The website contains a wide range of support and resources for learning, doing and teaching EBM (including the CATBank and the EBM Toolbox).
http://www.cebm.net

Centre for Health Evidence, Alberta
The Centre for Health Evidence, located at the University of Alberta, Canada, promotes evidence-based health care by presenting knowledge-based resources to health professionals in ways that facilitate their optimum use.
http://www.cche.net/che/home.asp

Cochrane Collaboration
The Cochrane Collaboration is an international non-profit and independent organisation, dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. The Cochrane Collaboration was founded in 1993. Its major product is the Cochrane Database of Systematic Reviews which is published as part of The Cochrane Library.
http://www.cochrane.org

Electronic Journals Library (German National Library of Medicine)
The Electronic Journals Library is one of the largest online libraries worldwide giving access to more than 18,000 online journals in lots of languages.
http://rzblx1.uni-regensburg.de/ezeit/fl.phtml?bibid=ZBMED&colors=7&lang=en¬ation=WW-YZ

GRADE Working Group
The Grading of Recommendations Assessment, Development and Evaluation (short GRADE) Working Group began in 2000 as an informal collaboration of people with an interest in addressing the shortcomings of present grading systems in health care. Its aim is to develop a common, sensible approach to grading quality of evidence and strength of recommendations.
http://www.gradeworkinggroup.org

Mailbase: Evidence Based Health
This list is for health professionals to announce meetings and courses, stimulate discussion, air controversies and aid the implementation of evidence based health.
http://www.jiscmail.ac.uk/lists/EVIDENCE-BASED-HEALTH.html

Medline / Pubmed
PubMed, a service of the National Library of Medicine (US), includes over 14 million citations for biomedical articles back to the 1950's. These citations are from MEDLINE and additional life science journals. PubMed includes links to many sites providing full text articles and other related resources.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi

National Information Learning Center, Georgia
The National Information Learing Center of Georgia is a multifunctional electronic medical library in Georgian and English Language. It gives access to MEDLINE, MDConsult, Evidence based Medicine related databases and online journals worldwide.
http://nt1.nilc.org.ge/nilc/web-pages/index.html

National Institute of Clinical Studies: Adopting Best Evidence in Practice
The National Institute of Clinical Studies is Australia's national agency for improving healthcare by helping close important gaps between best available evidence and current clinical practice
http://www.mja.com.au/public/issues/180_06_150304/suppl_contents_150304.html

National Quality Measures Clearinghouse
The National Quality Measures Clearinghouse? (NQMC?) sponsored by the Agency for Healthcare Research and Quality (AHRQ), is a public repository for evidence-based quality measures and measure sets.
http://www.qualitymeasures.org

National Research Register (NRR)
The National Research Register (NRR) is a database of ongoing and recently completed research projects funded by, or of interest to, the United Kingdom's National Health Service (NHS).
http://www.update-software.com/national/

**A ScHARR Introduction to Evidence Based Practice on the Internet:** Netting the Evidence is intended to facilitate evidence-based healthcare by providing support and access to helpful organisations and useful learning resources, such as an evidence-based virtual library, software and journals.
http://nettingtheevidence.org.uk/

**SUMsearch**
SUMSearch selects the best resources for your question, formats your question for each resource, and makes additional searches based on results.
http://www.infodoctor.org/rafabravo/SUMSearch.htm

**The Campbell Collaboration (C2)**
The international Campbell Collaboration (C2) is a non-profit organization that aims to help people make well-informed decisions about the effects of interventions in the social, behavioral and educational arenas. C2's objectives are to prepare, maintain and disseminate systematic reviews of studies of interventions. C2 builds summaries and electronic brochures of reviews and reports of trials for policy makers, practitioners, researchers and the public.
http://www.campbellcollaboration.org/

**Related Organisations**

**EBM TUDOR Network (Hungary)**
The EBM TUDOR Network is focusing on teaching of EBM methods and guideline development in Hungary. Dissemination of results/information is supported through the establishment of WEB based information services for the EBM network members. The name of the project comes from the Hungarian "TUDományos ORvoslás" literarly meaning "scientific medicine". The Network participated in developing the HUNGARIAN GUIDELINE MANUAL which can be accessed on the Hungarian Minstry of Health's website.
http://160.114.96.21/webeng/be_e.php

**HTA International**
Health Technology Assessment International is an international society. Its mission is to support and promote the development, communication, understanding and use of HTA around the world as a means of promoting the introduction of effective innovations and effective use of resources in health care.
http://www.htai.org/

**International Clinical Epidemiology Network South East Asia (INCLEN-SEA)**
INCLEN-SEA is a network of clinical epidemiologists, statisticians, social scientists, clinical economists and other health professional throughout Southeast Asia who work together to build and sustain institutional capacity for excellence and relevance in health research and education for improving equity, efficiency, and quality in health care.
http://www.inclensea.org/

**International Network of Agencies for Health Technology Assessment (INAHTA)**
Established in 1993, INAHTA has now grown to 40 member agencies from 20 countries. INAHTA serves the purpose to facilitate the cooperation between organisations throughout the world which assess healthcare technology.
http://www.inahta.org

**OSDM - Society of Specialists in EBM (Russia)**
OSDM, founded in 2002, with regional branches in the largest Russian cities, is committed to establish and distribute national educational standards of evidence based health care. The OSDM website contains resources for Russian website developers.
http://www.osdm.org

**ISQUA**
ISQua, The International Society for Quality in Health Care, is a non-profit, independent organisation with members in over 70 countries. ISQua works to provide services to guide health professionals, providers, researchers, agencies, policy makers and consumers, to achieve excellence in healthcare delivery to all people, and to continuously improve the quality and safety of care.
http://www.isqua.org

**Recourse Centres for Health Care Information**

**Hardin Meta Directory of Internet Health Resources**
Hardin MD (University of Iowa, USA) was first launched in 1996, as a source to find the best lists, or directories, of information in health and medicine. Hence, the name Hardin MD comes from **Hardin M**eta **D**irectory, since the site was conceived as a "directory of directories."
http://www.lib.uiowa.edu/hardin/md/

**Irish Clearing House**
The Irish Clearing House is a repository of projects on clinical outcomes and effectiveness studies based on practice in the health services in Ireland and is a project under the Irish Health Board's Executive.
http://www.ich.ie/index.htm

**MEDWEB@EMORY UNIVERSITY**
A resource maintained by the staff of the Robert W. Woodruff Health Sciences Center Library of Emory University (USA).
http://www.medweb.emory.edu/MedWeb/

**National electronic Library for Health**
The National electronic Library for Health Programme is working with UK NHS Libraries to develop a digital library for NHS staff, patients and the public.
http://www.nelh.nhs.uk/default.asp

**The University of Exeter Guide Search Engines**
http://www.exeter.ac.uk/library/internet/search.html

**Patient and consumer resources**

**Consumers and Evidence-Based Activities in New Zealand (NZ)**
The NZGG is committed to involving consumers in guidelines development and implementation in New Zealand. The website contains information on consumer related evidence-based activities in New Zealand.
http://www.nzgg.org.nz/index.cfm?fuseaction=fuseaction_12

**Dutch Primary Care Guidelines for Patients and Consumers (NL)**
The Dutch College of General Practitioners (NHG) presents its guidelines for patients and consumers in Dutch language.
http://nhg.artsennet.nl/content/resources/AMGATE_6059_104_TICH_L852066053/AMGATE_6059_104_TICH_R118809355841845//

**German Clearinghouse for Patient Information GCPI (DE)**
GCPI?s website - maintained by AQuMed/AEZQ is a free gateway to reliable consumer health and human services information in German language.
http://www.patienten-information.de/english/english/view

**NGC Links to Patient Resources (US)**
National Guideline Clearinghouse? (NGC?) has selected Web sites that contain information and/or links to information designed especially for patients.
http://www.guidelines.gov/resources/patient_resources.aspx

**Patient Resources of the National Federation of French Cancer Centers (FR)**
FNCLCC offers a gateway to cancer related patient and consumer information in French language.
http://www.fnclcc.fr/fr/sor/patient/index.php

## E. Core set of PATH Indicators

### i. Absenteeism

**Numerator:** Number of days of medically or non-medically justified absence for less seven days or less in a raw (short-term absenteeism) or 30 days or more (long-term absenteeism), excluding holidays, among nurses and nurse assistants

**Denominator:** Total equivalent full time nurses and nurses assistants * number contractual days per year for a full-time staff (e.g. 250)

**Definitions:** Absenteeism is referred herein as failure of employees to report for work when they are scheduled to work. Employees who are away from work on recognized holidays, vacations, approved leaves of absence, or leaves of absence allowed for under the collective agreement provisions would not be included. Short-term absenteeism: from 1 to 7 days (version 1) and from 2 to 7 days (version 2). Long-term absenteeism: more than 30 days to 1 year.

**Stratification**

Collect data by age, sex and qualification (nurse or assistant)

Age categories: under 40, 40-55, over 55 years

E**xclusion criteria:** This indicator is measured only for nurses and nurse assistants. Administrative and support staff and physicians are not considered.

For long-term absenteeism, maternity leaves, including preventive leaves, are excluded because of different legislations and it is out of hospital's influence (though in some instance, staff is relocated to activities compatible with pregnancy and preventive leave and hence long-term absenteeism is avoided). However, sick leave during pregnancy is included.

**Data collection**: retrospective longitudinal administrative data for calendar 2003

### ii. Excessive hours worked

E**xcessive weekly working time**:

Version A1: proportion of week worked over 48 hours

Version A2: proportion of week worked over 60 hours

Version A3: proportion of week worked over 150% regular working time according to national legislation

**Numerator:** for each week, number of full-time staff (nurses and nurse assistant) who worked more than 48 (or 60 or 150% of regulation), summed up on all the weeks in the period under study

D**enominator:** total number of weeks during observation * number of full-time employees

**Inclusion criteria:** Limit to nurses and nurse assistants/aids. Include only hospital employee (exclude working hours contracted through temporary work agency)

**Data collection:** Undertake a retrospective study of the percent of weeks worked more than 48 hours during the period from January to March 2004. If hospitals have to collect the information manually, they might choose a shorter time period for collection.

### iii. Work-related injuries: Occupational percutaneous exposure (PCE)

**Numerator:** Number of case of percutaneous injuries reported in the official database or occupational medicine register in one year (includes needlestick injuries and sharp devices injuries)

**Denominator:** Average number of full-time equivalent staff and non-salaried physicians

**Exclusion criteria:** None

**Data source:** Routinely collected data in 2003 in 1 of the 2 databanks mentioned abov3

**Comment:** Encourage one-point survey for data quality control

### iv. Budget for health promotion activities aimed at staff

**Numerator**: direct cost for all activities dedicated to staff health promotion (as per list) set up in 2003.

**Denominator**: total salary expenditures

**Definitions**:

- According to the WHO Ottawa Charter, "Health promotion is the process of enabling people to increase control over, and to improve, their health"

- Areas of health promotion activities: 1) health screening, 2) promoting healthy behaviour, 3) organizational interventions, 4) safety/physical environment, 5) social and welfare. Illustrations: worksite smoking cessation programs, stress –related programs, musculoskeletal disorders, alcohol cessation activities, nutrition and physical exercise.

**Inclusion criteria**: For the purpose of this indicator, we only include area 2. Areas 3 and 4 (in)directly deal with staff safety indicators such as % job descriptions with risk assessment of job and work-related injuries (percutaneous injuries or mucocutaneous exposure). Health screening is also excluded.

## v. Training expenditures

**Indicator 1**: total expenses for training / total salary expenditures
**Indicator 2:** number of employee who benefited from training / total number of employees
**Inclusion criteria** / stratification for professional categories?
**Definitions:** include only formal training

## vi. Mortality, for selected tracer conditions and procedures

**Numerator:** Core basket: Total number of patients admitted for a specific tracer condition or procedure who died during their hospital stay; Tailored basket: Total number of patients admitted for a specific tracer condition or procedure who died during a fixed follow-up period
**Denominator**: Total number of patients admitted for tracer condition or procedure
**Tracer conditions and procedures**: stroke (to be restricted to very specific ICD-9 and ICD-10 codes to increase homogeneity of case-mix), Acute Myocardial Infarction (AMI), hip fracture, community-acquired pneumonia (note: depends on the level of severity, for simplicity of data collection, includes patient in intensive care units), Coronary Artery Bypass Graft (CABG) (note: not relevant in all hospitals), Total hip replacement
Maternal and neonatal mortality are included in a tailored basket for use in South Africa
Tracer condition is identified using only the principal or primary diagnosis code
**Exclusion criteria**: patients transferred to / from other hospitals
Transfer rates and – ideally – destination should be reported simultaneously as a proxy for case-mix and for reputation. For acute myocardial infarction, it might be interesting to specifically study for patients transferred in (i.e. patients referred to tertiary care hospitals from lower level hospital) (in tailored set?)
**Risk-adjustment**: AGE, SEX

## vii. Admission after day surgery, for selected tracer procedures

**Numerator:** Number of patients undergoing a tracer procedure who have a discharge intention of one day
**Denominator:** Total number of patients who have an operation/procedure performed in the day procedure facility
**Tracer procedures:** cataract surgery, knee arthoscopy, inguinal hernia, curettage of the uterus, tonsillectomy and/or adenoidectomy, cholecystectomy, tube ligitation, varicose veins – stripping and ligation
Those tracer procedures cover most of the specialties with a high volume and represent different level of innovativeness
The same tracer procedures are used for the indicator "rate of one-day surgery"
**Definitions:**

- Identification of day-surgery patient is left for local determination. In some countries, day-surgery patients are attributed a specific code on admission and hence can easily be identified from database. In other countries, a special register will need to be set up.
- Early readmission: patients not discharged. They are transferred directly from the day procedure facility to an overnight facility or indirectly through an observation facility first. They are not discharged between the end of surgery and admission to hospitalization unit.
- Late readmission: Patients who were discharged following surgery and are-admitted within 72 hours after discharge.

**Exclusion criteria:** Because of data collection issues, and because it is more meaningful from a clinical point of view, only early readmission are included in this indicator. The patient is not discharged home before admission to inpatient acute care facility. Unplanned admission within 72 hours of discharge is proposed as a tailored indicator. Only admission to the hospital where the day-surgery took place are included.

## viii. Readmission, for selected tracer conditions or procedures

**Numerator**: Total number of patients admitted through the emergency department after discharge – within a fixed follow-up period– from the same hospital and with a readmission diagnosis relevant to the initial care.
**Denominator**: Total number of patients admitted for selected tracer condition
**Tracer procedures and conditions**: acute myocardial infarction (30 days), community-acquired pneumonia (30 days), asthma (24 hours and 24 to 72 hours), diabetes (24 hours and 24 to 72 hours) , hysterectomy, total hip replacement.
In the tailored set, a global indicator on surgery patients could be included (of specific financial interest for Poland because the second admission is not reimbursed).
South Africa will also include a specific indicator for HIV patients.
Tracer condition is identified using only the principal or primary diagnosis code
**Inclusion/exclusion criteria**: Patients who died during the index hospitalization or who were discharged to another acute care hospital are excluded from the numerator.
To be considered as a readmission, four conditions must be met: 1) diagnoses or procedure that was considered relevant to the initial care, 2) subsequent emergent or urgent admission (non elective), 3) the time between the discharge after the initial episode and the admission for the subsequent hospitalization lies within a specified time period defined by an expert panel, 4) the initial episode did not end with the patient signing himself out against medical advice (or died).
We propose to drop condition 4 because of the burden of data collection and –to some extent– it is hospital's responsibility to encourage patients to stay as long as required. Second, a proxy for emergent or urgent readmission is to include only readmissions through the emergency department.
Other potential exclusion criteria: patients already receiving continuous care at a primary care clinic, chemotherapy or radiotherapy; residing in or planned to go to nursing home; admitted only to undergo a procedure. Those criteria are not used in the PATH core indicator but could provide interesting tracks for tailored indicators.
**Risk-adjustment**: It was decided by the working group not to adjust for difference sin age or sex because it may represent bad selection of patients for day surgery.

## ix. Return to higher level of care within 48 hours

**Numerator:** Total number of patients in the denominator who are unexpectedly (once or several times) transferred to a higher level of care (intensive care or intermediary care) within 48 hours (or 72 hours to account for week-end effect) of their discharge from a high level of care to an acute care ward
**Denominator:** Total number of patients in the acute care ward who were previously in an intensive care unit or an intermediary care unit and underwent an elective surgery
**Exclusion criteria:** Readmissions for further planned operations should be eliminated from the numerator (but difficult to identify with current information systems)
Risk adjustment: AGE, SEX
**Comment:** Several levels of intensive care are coexisting. It is therefore suggested to replace the term "intensive care" to "higher level of care" and to use acute care ward as reference points. The definition of "higher level of care" is left for local determination. The focus is not on patients entering the intensive care but the patients exiting the acute care ward to return to intermediary or intensive care.

## x. Caesarean section

**Definitions**
Three definitions were originally proposed to the working group:
Version A: Primary Caesarean section delivery rate
**Numerator**: cases within the denominator with first time Caesarean section
**Denominator**: includes first time deliveries; excludes day-surgery patients & general exclusion criteria
Version B: Vaginal delivery after Caesarean section
**Numerator:** Number of vaginal birth in women with a diagnosis of previous Caesarean section
**Denominator:** All deliveries with a previous Caesarean section diagnosis in any diagnosis field
V**ersion C:** Total Caesarean section delivery rate
**Numerator:** Number of Caesarean sections
**Denominator:** All deliveries

**Comments:**
Though version A is theoretically preferred be indicator because efforts to reduce C-section delivery should focus on reducing the number of primary C-section delivery, it was decided to include only version C in the core set of indicators, to simplify data collection. Version A is highly recommended in the tailored set of indicators.
A strong selection bias is expected. For instance, in France, three levels of maternity are defined and the proportion of C-section is expected to vary widely between those levels. It will be crucial to identify such structural differences to compare only maternity treating patients with similar complexity.

## xi. Antibiotic prophylaxis use, for selected tracer procedures

**Core indicator**: Antibiotics prophylaxis administration in accordance with guidelines (timing, dosage, choice of agent) for selected tracer operative procedures
**Numerator:**
Version 1: Total number of audited medical records with evidence of over-use of antibiotics (too early and/or too long, too high dose, too broad spectrum) in comparison with hospital's guidelines
Version 2: Total number of audited records with evidence of under-use of antibiotics (too late, too early termination, too low doses, narrow spectrum where broad spectrum would have been required) in comparison with hospital's guidelines
**Denominator**: Total number of medical record audited for a specific tracer operative procedure
**Exclusion/inclusion criteria**: Excluded if evidence of pre-operative infection
**Tracer procedures**:
In the core set: colorectal scheduled surgery for colorectal cancer, coronary artery bypass graft, hip replacement.
In the tailored set: dental extraction for bacterial endocatritis, elective c-section
Hospitals are advised to add some more tracer conditions (e.g. community-acquired pneumonia) in the tailored set.
This indicator is limited to a number of operative tracer procedures for there is strong evidence to support prophylaxis antibiotics. The tracer procedures will be defined in a further step of the project. For each selected procedure, medical records are sampled and audited by trained professional.
**Comments:**
Conformity is assessed against hospital's own guidelines. Hence, a prerequisite is that hospitals set up guidelines for the procedures in the core set.
In some hospitals, the data is readily available in pharmacy database. In some others, medical records will need to be audited.
The number of records audited does not have to be too high. It is important to keep the burden of data collection to a minimum. The objective is not to have statistically significant results. Outlier hospitals will need to go back to the records and audit more to assess if the outlier status is due to random variation.

## xii. Inventory in stock

**Full description:** Average number of days inventoried supplies are held in inventory, for tracer categories
**Numerator:** Total value of inventory at the end of the year for pharmaceuticals
**Denominator:** Total expenditures for pharmaceuticals during the year / 365
**Collection period**: latest administrative year available
**Comments:**

- Data on blood wastage is readily available. Hence, remove blood products from the definition of the indicator on inventory in stock and build a specific indicator for blood wastage. It is computed using 2003 data (latest administrative year available)
- Surgical disposable equipment is removed from the original definition of this indicator
- Include chemo-therapy drugs
- Pharmaceuticals are purchased regionally.

## xiii. Length of stay, for selected tracer conditions or procedures

**Definition:** Median number of days of hospitalization (admission and discharge date count for one day) for selected tracer conditions and procedures

**Tracer conditions:** This indicator is limited to a number of tracer procedures. A specific indicator is computed for each tracer procedure. All indicators are then aggregated in a global indicator.
Preference is given to elective, schedules procedures
**Core tracers**: uncomplicated delivery, hysterectomy
**Tailored tracers**: stroke (limited to one specific code to limit to a more homogenous group of patients), acute myocardial infarction, hip fracture
In the tailored, a global indicator on elective surgery may be incorporated as a tailored indicator.
Tracer condition is identified using only the principal or primary diagnosis code
**Exclusion criteria**: patients transferred to / from other hospitals
Transfer rates and – ideally – destination should be reported simultaneously as a proxy for case-mix.
**Comments**: In hospitals with long-term care units such as geriatric care, only days in high level of care (intensive, intermediary or acute care) should be included in the calculation of the indicator.
**Complementary measure**: Length of stay before the first procedure, for elective surgery

## xiv. Intensity of surgical theatre use

**Numerator:** Number of patient hours under anesthesia
**Denominator:** Number of theatres * 24 hours
**Comments:**
Unit of measurement of the proposed indicator (surgical theatre unused session) is unclear and varies (hours/time, theatre use, and salaries) and hence the definition has been changed by the working group
**Data collection:**

- Data is not readily available
- Data will be collected prospectively over 1 week during April-May 2004
- Report on both elective and emergency surgery
- Delivery room is left for local determination for each country to report on or not (separately, if possible)
- Recovery room are not counted as surgical theatres

## xv. Day surgery rate, for selected tracer procedures

**Numerator:** Number of patients undergoing a tracer procedure who have a discharge intention of one day
**Denominator**: Total number of patients undergoing a tracer procedure
**Tracer procedures**: cataract surgery, knee arthoscopy, inguinal hernia, curettage of the uterus, tonsillectomy and/or adenoidectomy, cholecystectomy, tube ligitation, varicose veins – stripping and ligation
Those tracer procedures cover most of the specialties with a high volume and represent different level of innovativeness
The same tracer procedures are used for the indicator "admission after one-day surgery"
**Definitions**: There is a clear need for defining "day surgery" to increase comparability of day surgery statistics.
"Day surgery is the admission of selected patients to a hospital for a planned surgical procedure, returning home on the same day. True day surgery patients are day case patients who require full operating theatre facilities and/or general anaesthetic, and any day cases not included as outpatient or endoscopy (…) Minor day cases are day case patients who generally do not require full operating theatre facilities or general anaesthetic for example, patients having endoscopies or coloscopies and many, but not all, pain relief procedures and minor surgery . "
Alternative definition: "Day surgery is defined as planned surgical procedures carried out in a hospital, where the patient does not stay for more than twelve hours". Cut-off may be extended to 23 hours in special extended care facilities.
Difficulties regarding uniform definitions may be partly overcome by proper selection of tracer procedures: focusing on "true day surgery" and avoiding too broad surgical categories. Moreover a glossary of terms should be developed to define outpatient – ambulatory – one-day surgery. All indicators based on one-day surgery (admission following day surgery, rate of day surgery and cancellation of day surgery) must rely on the same definitions, tracer procedures and inclusion/exclusion criteria.

It was decided by the working group that determination of day-surgery patient is left for local determination. In some countries, day-surgery patients are attributed a specific code on admission and hence can easily be identified from database. In other countries, a special register will need to be set up.
**Inclusion/exclusion criteria**: Limit to elective procedures, exclude emergency procedures and patients who died.

## xvi. Breastfeeding at discharge

**Numerator**: Total number of mother included in the denominator breastfeeding at discharge
**Denominator**: Total number of delivery fulfilling criteria for inclusion
**Inclusion criteria**: Singleton, born at greater or equal to 37 weeks gestation, weight greater than or equal to 2500 grams at birth, 5-minute Apgar score greater than or equal to 5, neither mother nor infant has a medical condition for which breastfeeding is contraindicated (e.g. HIV).
**Definitions**: To be determined: exclusive breastfeeding only or include partial breastfeeding?
**Data collection**: Breastfeeding may be extracted from the kitchen information system because breastfeeding women receive a different diet. If routine data is not available, hospitals could have a survey on all women discharged during a week or a month, preferably in April-May 2004.
**Comment**: Average length of stay strongly differs and it could impact the results. For extremely short length of stay, breastfeeding should have been initiated.

## xvii. Last minute cancelled surgery

**Sub-indicator 1:** cancelled one day surgery on day of surgery
**Sub-indicator 2**: last minute cancelled surgery for inpatient admission
**Numerator**: Total number of patients who had their surgery cancelled or postponed during the period under study and who meet inclusion criteria
**Denominator**: Total number of patient admitted for surgery during the period under study and who meet inclusion criteria
**Inclusion criteria**:
For inpatient, include all elective surgery (use of operating theatre), include both cancellations for clinical and non-clinical reasons, postponed to more than 24 hours. Specifically cover tracer procedures used for other performance indicators (e.g. readmission, mortality).
For ambulatory procedures, include both cancellations for clinical and non-clinical reasons, limit to "last minute" cancellations (see NHS definition), limit to tracer procedures used for the indicator on admission after day surgery and rate of one-day surgery.
**Definition**
A last minute cancellation is a cancellation on the day the patient is due to arrive, after the patient has arrived in hospital, or on the day of scheduled operation. This includes telephone cancellations made on the day of their operation or day of admission. An operation which is re-scheduled to a time within 24 hours of the original scheduled operation is considered as a postponement and not a cancellation
**Data collection:** Undertake prospective survey during one month (for day surgery), preferably during April-May 2004 (to avoid holidays).

## xviii. Patient surveys

Continue to use current survey tools to assess patient satisfaction and patient experience
Point prevalence post-discharge study is preferred to exit surveys
Each team will undertake an review of the surveys available in the country
WHO will assist countries that need assistance to develop or refine their tools by providing evidence on existing standardized instruments.

## F. Hospital Performance Indicators

**Quality Indicator Project® Indicator Sets and Measures, the Maryland Hospital Association**

The Maryland Hospital Association's (MHA's) Quality Indicator Project8(OIP),now in its 17th year of existence, is the longest-running hospital performance measurement system in the world. Over this period, the OlP has demonstrated that performance measurement with indicators is not only possible but that continuous involvement in performance measurement renders significant results for the improvement of care. The education of users about performance data plays a crucial part in assuring the validity and reliability of methods and their consecutive application for quality improvement. Although eventually to be used in accountability to external audiences, comparative
performance data, in particular, have been proven useful for internal hospital audiences, such as physicians, nurses and administrators, during the evaluation and monitoring of their performance. With more than 1000 acute care hospital institutions currently participating in the OlP (out of a total of 1950 participants in all indicator sets), a number of questions are currently part of the QIP, using it as a core performance measurement and evaluation system.

**INDICATOR SETS AND MEASURES**

**Acute care measures:**

**Indicator 1a: Device-Associated Infections in the Intensive Care Unit**
- Central Line-Associated Bloodstream Infections in the APICU, CCU, MICU, M/S ICU, & SICU
Ventilator-Associated Pneumonia in the APICU, CCU, MICU, M/S ICU, & SICU
Symptomatic Indwelling Urinary Catheter-Associated UTIs in the APICU, CCU, MICU, M/S ICU, & SICU

**Indicator 1b: Device Use in the Intensive Care Unit**
Central Line Use in the APICU, CCU, MICU, M/S ICU, & SICU
Ventilator Use in the APICU, CCU, MICU, M/S ICU, & SICU
Indwelling Urinary Catheter Use in the APICU, CCU, MICU, M/S ICU, & SICU

**Indicator 2a: Surgical Site Infections**
Surgical Site Infections with NNIS Risk Index 0 CABG Patients
Surgical Site Infections with NNIS Risk Index 1 CABG Patients
Surgical Site Infections with NNIS Risk Index 2 CABG Patients
Surgical Site Infections with NNIS Risk Index 3 CABG Patients
Surgical Site Infections with NNIS Risk Index 0 CABG Patients
Surgical Site Infections with NNIS Risk Index 1 CABG Patients
Surgical Site Infections with NNIS Risk Index 2 CABG Patients
Surgical Site Infections with NNIS Risk Index 3 CABG Patients
Surgical Site Infections with NNIS Risk Index 0 Hip Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 1 Hip Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 2 Hip Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 3 Hip Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 0 Knee Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 1 Knee Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 2 Knee Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 3 Knee Arthroplasty Patients
Surgical Site Infections with NNIS Risk Index 0 Abdominal Hysterectomy Patients
Surgical Site Infections with NNIS Risk Index 1 Abdominal Hysterectomy Patients
Surgical Site Infections with NNIS Risk Index 2 Abdominal Hysterectomy Patients
Surgical Site Infections with NNIS Risk Index 3 Abdominal Hysterectomy Patients

**Indicator 2b: Prophylaxis for Surgical Procedures**

Prophylaxis for CABG
Prophylaxis Within 30 Minutes Prior to Incision for CABG
Prophylaxis Within 1 Hour Prior to Incision for CABG
Prophylaxis Within 2 Hours Prior to Incision for CABG
Prophylaxis for 24 Hours or Less for CABG
Prophylaxis for Hip Arthroplasty
Prophylaxis Within 30 Minutes Prior to Incision for Non-Revision Hip Arthroplasty
Prophylaxis Within 1 Hour Prior to Incision for Non-Revision Hip Arthroplasty
Prophylaxis Within 2 Hours Prior to Incision for Non-Revision Hip Arthroplasty
Prophylaxis for 24 Hours or Less for Hip Arthroplasty
Prophylaxis for Knee Arthroplasty
Prophylaxis Within 30 Minutes Prior to Incision for Non-Revision Knee Arthroplasty
Prophylaxis Within 1 Hour Prior to Incision for Non-Revision Knee Arthroplasty
Prophylaxis Within 2 Hours Prior to Incision for Non-Revision Knee Arthroplasty
Prophylaxis for 24 Hours or Less for Knee Arthroplasty
Prophylaxis for Appendectomy
Prophylaxis Within 30 Minutes Prior to Incision for Appendectomy
Prophylaxis Within 1 Hour Prior to Incision for Appendectomy
Prophylaxis Within 2 Hours Prior to Incision for Appendectomy
Prophylaxis for 24 Hours or Less for Appendectomy
Prophylaxis for Abdominal Hysterectomy
Prophylaxis Within 30 Minutes Prior to Incision for Abdominal Hysterectomy
Prophylaxis Within 1 Hour Prior to Incision for Abdominal Hysterectomy
Prophylaxis Within 2 Hours Prior to Incision for Abdominal Hysterectomy
Prophylaxis for 24 Hours or Less for Abdominal Hysterectomy
Prophylaxis for Vaginal Hysterectomy
Prophylaxis Within 30 Minutes Prior to Incision for Vaginal Hysterectomy
Prophylaxis Within 1 Hour Prior to Incision for Vaginal Hysterectomy
Prophylaxis Within 2 Hours Prior to Incision for Vaginal Hysterectomy
Prophylaxis for 24 Hours or Less for Vaginal Hysterectomy

**Indicator 3: Inpatient Mortality**
Total Inpatient Mortality
DRG 014—Specific Cerebrovascular Disorders Except Transient Ischemic Attacks
DRG 079—Respiratory Infections and Inflammations with Complications, Age > 17
DRG 088—Chronic Obstructive Pulmonary Disease (COPD)
DRG 089—Simple Pneumonia, Age > 17 with Complications and Comorbidities
DRG 127—Heart Failure and Shock
DRG 174—GI Hemorrhage with Complications
DRG 316—Renal Failure
DRG 416—Septicemia, Age > 17
DRG 475—Respiratory System Diagnosis with Ventilator Support
DRG 489—HIV with Major Related Condition
All Other DRGs

**Indicator 4: Neonatal Mortality**
Neonatal Mortality for Direct Admissions, Birth Weight < 750g
Neonatal Mortality for Direct Admissions, Birth Weight 751 to 1,000g
Neonatal Mortality for Direct Admissions, Birth Weight 1,001 to 1,800g
Neonatal Mortality for Direct Admissions, Birth Weight > 1,801g
Neonatal Mortality for Transfers-in, Birth Weight < 750g
Neonatal Mortality for Transfers-in, Birth Weight 751 to 1,000g
Neonatal Mortality for Transfers-in, Birth Weight 1,001 to 1,800g
Neonatal Mortality for Transfers-in, Birth Weight > 1,801g

**Indicator 5: Perioperative Mortality**
Total Perioperative Mortality for all ASA Classes

Perioperative Mortality for ASA P1
Perioperative Mortality for ASA P2
Perioperative Mortality for ASA P3
Perioperative Mortality for ASA P4
Perioperative Mortality for ASA P5

**Indicator 6: Management of Labor**
Primary C-sections
Repeat C-sections
Total C-section Frequency
Vaginal Births After C-section (VBAC)
Trial of Labor Success

**Indicator 7: Unscheduled Readmissions**
Unscheduled Readmissions Within 15 Days for the Same or a Related Condition
Unscheduled Readmissions Within 15 Days for DRG 079 or a Related Condition
Unscheduled Readmissions Within 15 Days for DRG 088 or a Related Condition
Unscheduled Readmissions Within 15 Days for DRG 089 or a Related Condition
Unscheduled Readmissions Within 15 Days for DRG 127 or a Related Condition
Unscheduled Readmissions Within 15 Days for DRGs 140 and 143 or a Related Condition
Unscheduled Readmissions Within 31 Days for the Same or a Related Condition
Unscheduled Readmissions Within 31 Days for DRG 079 or a Related Condition
Unscheduled Readmissions Within 31 Days for DRG 088 or a Related Condition
Unscheduled Readmissions Within 31 Days for DRG 089 or a Related Condition
Unscheduled Readmissions Within 31 Days for DRG 127 or a Related Condition
Unscheduled Readmissions Within 31 Days for DRGs 140 and 143 or a Related Condition

**Indicator 8: Unscheduled Admissions Following Ambulatory Procedures**
Unscheduled Admissions Following Ambulatory Cardiac Catheterization
Unscheduled Inpatient Admissions Following Ambulatory Cardiac Catheterization
Unscheduled Observation Admissions Following Ambulatory Cardiac Catheterization
Unscheduled Admissions Following Ambulatory Digestive, Respiratory, or Urinary System Diagnostic Endoscopies
Unscheduled Inpatient Admissions Following Ambulatory Digestive, Respiratory, or Urinary System Diagnostic Endoscopies
Unscheduled Observation Admissions Following Ambulatory Digestive, Respiratory, or Urinary System Diagnostic Endoscopies
Unscheduled Admissions Following All Other Ambulatory Operative Procedures
Unscheduled Inpatient Admissions Following All Other Ambulatory Operative Procedures
Unscheduled Observation Admissions Following All Other Ambulatory Operative Procedures

**Indicator 9: Unscheduled Returns to Intensive Care Units**
Unscheduled Returns to Intensive Care Units

**Indicator 10: Unscheduled Returns to the Operating Room**
Unscheduled Returns to the Operating Room

**Indicator 11: Isolated CABG Perioperative Mortality**
Observed Isolated CABG Perioperative Mortality, ASA P1
Observed Isolated CABG Perioperative Mortality, ASA P2
Observed Isolated CABG Perioperative Mortality, ASA P3
Observed Isolated CABG Perioperative Mortality, ASA P4
Observed Isolated CABG Perioperative Mortality, ASA P5
Total Observed Isolated CABG Perioperative Mortality for All ASA Classes

**Indicator 12: Physical Restraint Use**
Physical Restraint Events

Physical Restraint Events Lasting 1 Hour or Less
Physical Restraint Events Lasting > 1 Hour but < 4 Hours
Physical Restraint Events Lasting > 4 Hours but < 8 Hours
Physical Restraint Events Lasting > 8 Hours but < 16 Hours
Physical Restraint Events Lasting > 16 Hours but < 24 Hours
Physical Restraint Events Lasting > 24 Hours
Physical Restraint Events due to Cognitive Disorder
Physical Restraint Events due to Risk of Falling
Physical Restraint Events due to Disruptive Behavior
Physical Restraint Events to Facilitate Treatment
Physical Restraint Events for All Other Reasons
Physical Restraint Events Initiated Between 7:00 a.m. and 2:59 p.m.
Physical Restraint Events Initiated Between 3:00 p.m. and 10:59 p.m.
Physical Restraint Events Initiated Between 11:00 p.m. and 6:59 a.m.
Inpatients Experiencing Physical Restraint Events
Patients with Multiple Physical Restraint Events

**Indicator 13: Falls**
Documented Falls
Falls due to Patient's Health Status
Falls due to Response to Treatment, Medication, and/or Anesthesia
Falls due to Environmental Hazard
Falls due to Other Causes
Falls Resulting in Injury
Falls with Severity Score 1
Falls with Severity Score 2
Falls with Severity Score 3
Repeat Falls

**Indicator 14a-e: Complications Following Sedation and Analgesia in Intensive Care Units, Cardiac Cath Labs, Radiology Suites, Endoscopy Suites, and Emergency Departments**
Sedation and Analgesia Episodes for ASA P1
Sedation and Analgesia Episodes for ASA P2
Sedation and Analgesia Episodes for ASA P3
Sedation and Analgesia Episodes for ASA P4
Sedation and Analgesia Episodes for ASA P5
Sedation and Analgesia Episodes Without ASA Classification
Measurement of Oxygen Saturation
Mild Oxygen Desaturation
Severe Oxygen Desaturation
Aspiration
Airway Obstruction
Drop in Systolic Blood Pressure
Use of Reversal Agents
Involvement of Anesthesia Staff
Loss of Consciousness

**Indicator A1: Unscheduled Returns to the Emergency Department**
Unscheduled Returns Within 0 to 24 Hours
Unscheduled Returns Within 0 to 24 Hours that Result in an Inpatient Admission
Unscheduled Returns Within 0 to 24 Hours that Result in an Observation Admission
Unscheduled Returns Within 0 to 48 Hours
Unscheduled Returns Within 0 to 48 Hours that Result in an Inpatient Admission
Unscheduled Returns Within 0 to 48 Hours that Result in an Observation Admission
Unscheduled Returns Within 0 to 72 Hours
Unscheduled Returns Within 0 to 72 Hours that Result in an Inpatient Admission
Unscheduled Returns Within 0 to 72 Hours that Result in an Observation Admission

**Indicator A2: Length of Stay in the Emergency Department**
Length of Stay < 2 Hours
Patients with a LOS < 2 Hours: Discharged Home
Patients with a LOS < 2 Hours: Admitted as an Inpatient
Patients with a LOS < 2 Hours: Transferred to Observation Status
Patients with a LOS < 2 Hours: Transferred to Another Acute Care Facility
Patients with a LOS < 2 Hours: for All Other Dispositions
Length of Stay > 2 Hours but < 4 Hours
Patients with a LOS > 2 Hours but <4 Hours: Discharged Home
Patients with a LOS > 2 Hours but <4 Hours: Admitted as an Inpatient
Patients with a LOS > 2 Hours but <4 Hours: Transferred to Observation Status
Patients with a LOS > 2 Hours but <4 Hours: Transferred to Another Acute Care Facility
Patients with a LOS > 2 Hours but <4 Hours: for All Other Dispositions
Length of Stay > 4 Hours but <6 Hours
Patients with a LOS > 4 Hours but <6 Hours: Discharged Home
Patients with a LOS > 4 Hours but <6 Hours: Admitted as an Inpatient
Patients with a LOS > 4 Hours but <6 Hours: Transferred to Observation Status
Patients with a LOS > 4 Hours but <6 Hours: Transferred to Another Acute Care Facility
Patients with a LOS > 4 Hours but <6 Hours: for All Other Dispositions
Length of Stay > 6 Hours
Patients with a LOS > 6 Hours: Discharged Home
Patients with a LOS > 6 Hours: Admitted as an Inpatient
Patients with a LOS > 6 Hours: Transferred to Observation Status
Patients with a LOS > 6 Hours: Transferred to Another Acute Care Facility
Patients with a LOS > 6 Hours: for All Other Dispositions

**Indicator A3: ED X-ray Discrepancies and Patient Management**
X-ray Discrepancies Requiring a Change in Patient Management

**Indicator A4: Patients Leaving the ED before Treatment is Complete**
Patients Leaving the ED Before Treatment is Complete

**Indicator A5: Cancellation of Ambulatory Procedures**
Cancellation of Scheduled Amb ulatory Cardiac Catheterizations
Cancellation of Ambulatory Cardiac Catheterizations by the Facility
Cancellation of Ambulatory Cardiac Catheterizations by the Patient
Cancellation of Scheduled Ambulatory Digestive System Diagnostic Endoscopies
Cancellation of Ambulatory Digestive System Diagnostic Endoscopies by the Facility
Cancellation of Ambulatory Digestive System Diagnostic Endoscopies by the Patient
Cancellation of Scheduled Other Ambulatory Procedures
Cancellation of Scheduled Other Ambulatory Procedures by the Facility on the Day of Procedure
Cancellation of Scheduled Other Ambulatory Procedures by the Patient on the Day of Procedure

**Psychiatric care measures:**

**Indicator PSY-1: Injurious Behaviors (Adult & Adolescent Units)**
Adult Self-Injury Events (by Discharges)
Adult Self-Injury Events (by Patient Days)
Adult Patient Days with One or More Self-Injury Events (by Patient Days)
Adult Physical Assault Events (by Discharges)
Adult Physical Assault Events (by Patient Days)
Adult Patient Days with One or More Physical Assault Events (by Patient Days)
Adolescent Self-Injury Events (by Discharges)
Adolescent Self-Injury Events (by Patient Days)
Adolescent Patient Days with One or More Self-Injury Events (by Patient Days)
Adolescent Physical Assault Events (by Discharges)

Adolescent Physical Assault Events (by Patient Days)
Adolescent Patient Days with One or More Physical Assault Events (by Patient Days)

**Indicator PSY-2: Unplanned Departures Resulting in Discharge (Adult & Adolescent Units)**
Adult Unplanned Departures Resulting in Discharge
Adult Unplanned Departures due to AMA
Adult Unplanned Departures due to Elopement
Adolescent Unplanned Departures Resulting in Discharge
Adolescent Unplanned Departures due to AMA
Adolescent Unplanned Departures due to Elopement

**Indicator PSY-3: Transfers/Discharges to Inpatient Acute Care (Adult Units)**
Adult Transfers/Discharges to Inpatient Acute Care < 24 Hours of Psychiatric Admissions
Adult Transfers/Discharges to Inpatient Acute Care > 24 Hours but < 72 Hours of Psychiatric Admissions
Adult Transfers/Discharges to Inpatient Acute Care > 72 Hours of Psychiatric Admissions

**Indicator PSY-4: Readmissions to Inpatient Psychiatric Care (Adult & Adolescent Units)**
Adult Readmissions Within < 24 Hours of Discharge
Adult Readmissions Within > 24 but < 72 Hours of Discharge
Adult Readmissions Within > 72 but < 7 Days of Discharge
Adult Readmissions Within 0 to 15 Days of Discharge
Adult Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS < 72 Hours
Adult Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS > 72 Hours but < 15 Days
Adult Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS > 15 Days
Adult Readmissions Within 16 to 31 Days of Discharge
Adult Readmissions Within 32 to 60 Days of Discharge
Adolescent Readmissions Within 0 to 15 Days of Discharge
Adolescent Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS < 72 Hours
Adolescent Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS > 72 Hours but < 15 days
Adolescent Readmissions Within 0 to 15 Days of Discharge with Prior Psychiatric LOS > 15 Days
Adolescent Readmissions Within 16 to 31 Days of Discharge
Adolescent Readmissions Within 32 to 60 Days of Discharge

**Indicator PSY-5: Use of Involuntary Restraint (Adult & Adolescent Units)**
Adult Involuntary Restraint Events (by Discharges)
Adult Discharges with One or More Involuntary Restraint Events (by Discharges)
Adult Involuntary Restraint Events (by Patient Days)
Adult Patient Days with One or More Involuntary Restraint Events (by Patient Days)
Adult Inpatients with One or More Involuntary Restraint Events (by Discharges)
Adult Inpatients with One or More Involuntary Restraint Events (by Patient Days)
Adult Inpatients with One or More Involuntary Restraint Events (by Inpatients)
Adult Repeated Use of Involuntary Restraint
Adult Involuntary Restraint Hours (by Patient Hours)
Adolescent Involuntary Restraint Events (by Discharges)
Adolescent Discharges with One or More Involuntary Restraint Events (by Discharges)
Adolescent Involuntary Restraint Events (by Patient Days)
Adolescent Patient Days with One or More Involuntary Restraint Events (by Patient Days)
Adolescent Inpatients with One or More Involuntary Restraint Events (by Discharges)
Adolescent Inpatients with One or More Involuntary Restraint Events (by Patient Days)
Adolescent Repeated Use of Involuntary Restraint

**Indicator PSY-6: Use of Seclusion (Adult & Adolescent Units)**
Adult Seclusion Events (by Discharges)
Adult Seclusion Events Lasting < 1 Hour
Adult Seclusion Events Lasting > 1 Hour but < 6 Hours
Adult Seclusion Events Lasting > 6 Hours but < 12 Hours

Adult Seclusion Events Lasting > 12 Hours
Adult Seclusion Events (by Patient Days)
Adult Patient Days with One or More Seclusion Events (by Patient Days)
Adult Inpatients Undergoing One or More Seclusion Events (by Discharges)
Adult Inpatients Undergoing One or More Seclusion Events (by Patient Days)
Repeated Use of Adult Seclusion
Adolescent Seclusion Events (by Discharges)
Adolescent Seclusion Events Lasting < 1 Hour
Adolescent Seclusion Events Lasting > 1 Hour but < 6 Hours
Adolescent Seclusion Events Lasting > 6 Hours but < 12 Hours
Adolescent Seclusion Events Lasting > 12 Hours
Adolescent Seclusion Events (by Patient Days)
Adolescent Patient Days with One or More Seclusion Events (by Patient Days)
Adolescent Inpatients Undergoing One or More Seclusion Events (by Discharges)
Adolescent Inpatients Undergoing One or More Seclusion Events (by Patient Days)
Repeated Use of Adolescent Seclusion

**Indicator PSY-7: Partial Hospitalization (Adult Units)**
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for Patients with < 1 PHP Visit
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for Patients with > 1 but < 5 PHP Visits
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for Patients with > 5 but < 14 PHP Visits
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for Patients with > 14 PHP Visits
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility because the Initial Discharge to PHP was Inappropriate
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility due to Patient Non-Compliance with Treatment and/or Medication
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility due to Return or Exacerbation of Symptoms Unrelated to Patient Non-Compliance
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility due to Medical or Psychiatric Complication of Treatment Including Medication Adjustment
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for Substance Abuse Treatment
Adult PHP Discharges to Inpatient Psychiatric or Substance Abuse Unit/Facility for All Other Reasons
Adult PHP Discharges to Intensive Outpatient Programs (IOP)
Adult PHP Discharges to Mental Health Centers or Clinics
Adult PHP Discharges to Private Outpatient Practitioners
Adult PHP Discharges due to No Shows, AMAs, or Elopements
Adult PHP Discharges with No Mental Health Follow-up
Adult PHP Discharges for All Other Discharge Dispositions
Adult PHP Discharges for Patients with < 1 PHP Visit
Adult PHP Discharges for Patients with > 1 but < 5 PHP Visits
Adult PHP Discharges for Patient with > 5 but < 14 PHP Visits
Adult PHP Discharges for Patients with > 14 PHP Visits

**Indicator PSY-8: Adult Documented Falls (Adult Units)**
Adult Documented Falls
Adult Falls due to Patient Health Status
Adult Falls due to Response to Medication
Adult Falls due to Environmental Hazard
Adult Falls due to Other Causes
Adult Falls that Resulted in Injury

**Long-term care measures:**

**Indicator 1: Unplanned Weight Change**
Unplanned Weight Loss
Unplanned Weight Gain

**Indicator 2: Pressure Ulcer Prevalence**
Pressure Ulcer Point Prevalence
Stage I Pressure Ulcer Point Prevalence
Stage II Pressure Ulcer Point Prevalence
Stage III Pressure Ulcer Point Prevalence
Stage IV Pressure Ulcer Point Prevalence

**Indicator 3: Falls**
Documented Falls
Falls due to Resident/Patient Health Status
Falls due to Response to Treatment, Medication or Anesthesia
Falls due to Environmental Hazard
Falls due to Other Causes
Falls that Resulted in Injury
Falls that Resulted in Injury with Severity Score 1
Falls that Resulted in Injury with Severity Score 2
Falls that Resulted in Injury with Severity Score 3
Residents/Patients Experiencing Falls

**Indicator 4: Transfers/Discharges to Inpatient Acute Care**
Unscheduled Transfers/Discharges to Inpatient Acute Care Within 72 Hours of LTC Admis sion
Total Unscheduled Transfers/Discharges to Inpatient Acute Care
Unscheduled Transfers/Discharges to Inpatient Acute Care for Cardiovascular Decompensation
Unscheduled Transfers/Discharges to Inpatient Acute Care for Evaluation or Treatment of Fractures
Unscheduled Transfers/Discharges to Inpatient Acute Care for Gastrointestinal Bleeding
Unscheduled Transfers/Discharges to Inpatient Acute Care for Infection
Unscheduled Transfers/Discharges to Inpatient Acute Care for All Other Medical/Surgical Reasons

**Indicator 5: Nosocomial Infections**
Lower Respiratory Tract Infections Treated
Resident/Patient Days in Which Lower Respiratory Tract Infections were Treated
Symptomatic Urinary Tract Infections Treated
Symptomatic Urinary Tract Infections Treated in Residents/Patients with Indwelling Catheters
Symptomatic Urinary Tract Infections Treated in Residents/Patients without Indwelling Catheters
Residents/Patients Treated for *One or More* Symptomatic Urinary Tract Infections
Residents/Patients with Indwelling Catheters Treated for *One or More* Symptomatic Urinary Tract Infections
Residents/Patients without Indwelling Catheters Treated for *One or More* Symptomatic Urinary Tract Infections

**Indicator 6: Physical Restraint Use**
Physical Restraint Events
Physical Restraint Events < 1 Hour
Physical Restraint Events > 1 Hour but < 4 Hours
Physical Restraint Events > 4 Hours but < 8 Hours
Physical Restraint Events > 8 Hours but < 16 Hours
Physical Restraint Events > 16 Hours but < 24 Hours
Physical Restraint Events > 24 Hours
Physical Restraint Events due to Cognitive Disorder
Physical Restraint Events due to Risk of Falling
Physical Restraint Events due to Disruptive Behavior
Physical Restraint Events to Facilitate Treatment

Physical Restraint Events for All Other Reasons
Physical Restraint Events Initiated Between 7:00 a.m. and 2:59 p.m.
Physical Restraint Events Initiated Between 3:00 p.m. and 10:59 p.m.
Physical Restraint Events Initiated Between 11:00 p.m. and 6:59 a.m.
Residents/Patients Experiencing Physical Restraint
Residents/Patients with Multiple Physical Restraint Events

**Home care measures:**

**Indicator HC-1: Unscheduled Transfers to Inpatient Acute Care**
Unscheduled Transfers to Inpatient Acute Care
Unscheduled Transfers due to Cardiac Problems
Unscheduled Transfers due to Catheter-Related UTIs
Unscheduled Transfers due to Endocrine Problems
Unscheduled Transfers due to Gastrointestinal Problems
Unscheduled Transfers due to Injuries
Unscheduled Transfers due to Medication Problems
Unscheduled Transfers due to Mental Health Problems
Unscheduled Transfers due to Neurological Problems
Unscheduled Transfers due to Respiratory Problems
Unscheduled Transfers due to Skin Infections
Unscheduled Transfers for All Other Reasons

**Indicator 2: Use of Emergent Care Services**
Emergent Care Visits
Emergent Care Visits to Hospital Emergency Rooms
Emergent Care Visits to Doctor's Offices or House Calls
Emergent Care Visits to Outpatient Departments or Clinics
Patients Experiencing One or More Emergent Care Visits

**Indicator 3: Discharges to Nursing Home Care**
Discharges to Nursing Home Care
Discharges for Therapy Services
Discharges for Permanent Placement
Discharges because Unsafe for Care at Home
Discharges for All Other Reasons

**Indicator 4: Acquired Infections**
Symptomatic UTIs for Patients with Indwelling Catheters
Symptomatic UTIs for Patients with Indwelling Catheters: Age < 75
Symptomatic UTIs for Patients with Indwelling Catheters: Age < 75
Surgical Site Infection
IV Site Infection
Sepsis in Patients Receiving TPN
Skin Infection
Patients with Skin Infection
Respiratory Infection
Patients with Respiratory Infection
Gastrointestinal Infection
Patients with Gastrointestinal Infection

## G. Set of Indicators developed by Ministry of Health SR

| Type of provider | Assured quality area | Indicator`s name |
|---|---|---|
| **General HC** | Accessibility | Accessibility of GP |
| | | Patients examined within 2 days from GP`s contact |
| | HC perceived by patient | Provider`s assessment by patient |
| | | Complaints handling |
| | | Average time of duration of outpatient examination |
| | Outcome of HC | |
| | Effecient and reasonable HC providing | Acute care management |
| | | Chronical care management |
| | | Patients, who quited smoking |
| | | Screening of cervix uteri cancer |
| | | Vaccination of childrens population |
| | | Vaccination against influenza |
| | Effective use of resources | Prescription of generic drugs |
| **Specialized HC** | Accessibility | Patients, examined by outpatient specialist in 30 days from first contact of provider |
| | HC perceived by patient | Provider`s assessment by patient |
| | | Patients` absence from examination after being ordered |
| | | Complaints handling |
| | | Average time of duration of outpatient examination |
| | Effective use of resources | Prescription of generic drugs |
| **Institutional HC** | Accessibility | Patients waiting for admission to the institutional HC less then 1 month |
| | | Patients, examined by outpatient specialist in 14 days from first contact of provider |
| | HC perceived by patient | Provider`s assessment by patient |
| | | Patients waiting for urgent admission shorter then 2 hours |
| | | Patients` absence from examination after being ordered |
| | | Number of cancelled elective operations |
| | | Complaints handling |
| | | Average time of duration of outpatient examination |
| | Outcome of HC | |
| | Effective use of resources | Daily treatment |
| | | Prescription of generic drugs |

## H. CME Concept

**Curriculum and standards to be maintained**
There should be a 5 year cycle of Continuing Medical Educational activities during which time the specialist should ensure they maintain their competency in those areas outlined within the Core Curriculum through a programme of educational activities as recommended in the EBR Charter for CME which can lead to re-validation.
A rheumatologist should be able to demonstrate that they have maintained their competency to deliver the highest standards of care commensurate with the developments in knowledge and clinical practice of musculoskeletal conditions. This can be demonstrated by participation in educational activities and forms of assessment as recommended in the UEMS Charter for Continuing Medical Education and the position paper by the UEMS Section of Rheumatology / European Board of Rheumatology.

**Requirements for CME**
CME can be demonstrated by the amount of time that is spent undertaking educational activities. This does not include an assessment of competence, educational need or of what has been gained from this educational activity. These must be measured in different ways.
A CME credit is a unit corresponding to one hour of educational activity. A unit may not necessarily correspond to one clock hour, and different types of activities have different educational values, such as formally planned interactive educational activities in contrast to personal learning activities.
Reading authoritative medical literature is another method of CME that is a requirement for all rheumatologists and should be on average at least 2 clock hours per week. The definitions of these different types of CME activities have been agreed by the UEMS (ref).
Formally planned interactive CME (external CME) activities need to be approved according to the UEMS and UEMS Rheumatology Section / EBR Guidelines and recorded in the CME Log Book along with the approved CME credits.
Personal learning activities (internal CME) do not need approval but participation in these activities should be recorded in the CME Log Book along with time spent. CME credits can be gained by these activities as indicated in section x.x.
A total of 250 CME credits are required over a 5 year period for consideration for re-accreditation. No more than 100 should be recognised in any one year.
Out of the total of 250 credits, 150 should be gained by external CME activities and no more than 50 credits should be gained in any area of special interest.

**Assessment of educational need**
The specialist should ensure, as a minimum, that they maintain their competency in those areas outlined within the Core Curriculum during the 5 year re-accreditation cycle of CME.
The specialist should identify their educational needs to guide their personal continuing professional
development. Educational need can be identified in a variety of ways, such as by reviewing their clinical practice and outcomes of care by case-review or audit. A log book of educational activities can be used to identify what areas of the curriculum have been covered. Visitation by colleagues is an alternative method to identify differences in practice and educational need.

**Demonstration of Competency by Specialists**
The specialist should be able to demonstrate their participation in CME activities by completion of a log book. This should detail the type of educational activity, the date and duration, the agreed credits given to it and what they gained from participating in it. This can then be related to the credit requirements for CME, and the relation of the activity to the curriculum and personal need.

The log book should be open to inspection should any issues of competency arise, and it should be possible to validate against any external records of educational activities.
Participation in a process of assessment is encouraged. This may be by the participation in assessments organised during specialist meetings or in journals, or by the visitation of colleagues.

**STRUCTURE OF CME**

**CME Credit System**

***External***

External credits may be earned by attendance at courses, conferences, lectures, scientific meetings, workshops etc where the course has been subjected to prior assessment of content and relevance by the national authority(s) or the EBR/EULAR CME Quality Assurance Committee and meets the EBR recommendations. The specialist must have an adequate understanding of the language of the educational activity for CME credits to be awarded to them.

***Internal***

Internal credits will be awarded for hospital and locally based educational activities including teaching, audit, and published material as well as self directed learning.

***Reading***

Specialists should read authoritative medical literature an average of at least 2 hours a week. This comes on top of the external and internal CME credit requirements.

**Allocation and Registration of Credits**

Any credit system must allow for differences between self-study, local educational activities and other educational activities provided at a national and international level.
There needs to be a standardised system of credit for CME within and between European countries to allow for mutual recognition of educational activities.
A register of educational activities with the allocated credits will be maintained centrally by the EBR and EAC.
It is the responsibility of the specialist to keep their personal record of all their CME activities to enable them to demonstrate, in a way that can be validated, that they have undertaken the required number of CME credits and covered the curriculum so that they are eligible for consideration for recertification.

**Standards for CME activities**

For any CME activity to be considered for recognition as part of the external credits, it must meet the guidelines for CME activities that have been established by the UEMS and by the EBR.

**Approval system**

In each country there should be a named authority that has responsibility for recognising the appropriateness of CME activities and agreeing the credits to be allocated to it. Details of approved CME activities should be made available to the EAC. This information should also be available to the EBR. Any authority that approves CME activities must reflect both academic and professional views.
Organisers of courses and meetings should apply to the appropriate authority in each country for approval.
If the CME activity does not relate to any individual country, then application can be made to the EBR (see application)

**Quality assurance**

There should be activities some form of quality assessment of all educational that are considered for CME, and this should form part of the report of that event to the approving authority.

**EUROPEAN CO-ORDINATION**

The EBR has established a core curriculum for CME. Recommendations for the quantity, type and quality of CME are made in this document and associated papers.
European educational activities will be co-ordinated with a diary showing availability of CME activities and agreed credits, and by the organisation of educational events in collaboration with EULAR and other appropriate organisations to meet any deficiencies in provision.
The EBR/EULAR CME Quality Assurance Committee will monitor educational activities for

suitability for CME and allocate credits. Quality of educational activities will also be monitored. The monitoring of the CME of individual specialists will be facilitated by provision of log books, organisation of informal assessments and developing a system of voluntary visitations.
The EBR will develop a system of visitation with criteria to facilitate good rheumatological practice across Europe.

For more details see e.g. Recommendations of UEMS (Union of European Medical Specialist) - publications and the charter at http://www.uems.net/.

## I. List of pilot hospitals

| Name and address | Contact |
|---|---|
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