

Assessment of General Practitioners' Performance in Daily Practice:  
The EURACT Performance Agenda of General Practice/Family Medicine



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**Assessment of General Practitioners'  
Performance in Daily Practice:  
The EURACT Performance Agenda of  
General Practice / Family Medicine (EUPA)**

Document prepared by EURACT Council

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## About EURACT

The **European Academy of Teachers in General Practice and Family Medicine (EURACT)** was launched in March, 1992. The overall aim of the Academy is “to foster and maintain high standards of care in European general practice by promoting general practice as a discipline by learning and teaching.”

Since the launch of the Academy it has grown to be one of the largest personal membership organisations in Europe, with over 700 members in nearly 40 European countries. Teachers in each country in the WONCA European region may be members, and each country with at least three members has one representative on the Council, which is the ruling body.

With the formation of the WONCA Region Europe/European Society of General Practice/Family Medicine, EURACT has become one of the network European organisations with a special interest in education.

The EURACT website <http://www.euract.eu> hosts EURACT official documents, together with specific guidelines, statements and other educational resources. Among these are the Dynamic Interactive Databases of Specialist Training and Continuing Medical Education/Continuing Professional Development in General Practice/Family Medicine which provide up-to-date information about these topics in EURACT member countries. The website also offers a forum and chat room and an “Ask the Expert” service exclusively for individual EURACT members.

All teachers of general practice in the WONCA European region are invited to apply for membership of the Academy. Applications should be made to your national representative (see website for details). All applicants for full membership must be family doctors active in teaching general practice.

**[www.euract.eu](http://www.euract.eu)**



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# 1 Executive summary: Introduction to the EURACT Performance Agenda

Stefan Wilm

General practice/family medicine is a pivotal part of primary care systems: This fact is widely recognized all over the world<sup>1,2,3</sup>, being popular with patients able to retain a personal relationship with their doctor in the increasingly impersonal world of health-care delivery, and with politicians because of its inherent cost effectiveness<sup>4</sup>. Evidence has shown that health care systems based on effective primary care provided by trained general practitioners working in the community are not only cost effective but provide effective care for patients<sup>5</sup>. This has been recognized in Europe, where, for the majority of European countries, general practice/family medicine is an important, fundamental part of the health care systems. The European Union has built general practice into its healthcare policies, and it is being developed by non-member states as well<sup>6</sup>. General practitioners play a central role in ensuring that patients acquire appropriate health care provision. Although there has been a great deal of progress in the development of general practice in Europe, there remain large differences in the way this has been done in different countries and in the manner in which family doctors are integrated into the health care system<sup>7</sup>.

A big step forward was taken in 2002 when WONCA Europe, the academic body for general practice, published the new *European definition of general practice/family medicine*<sup>8</sup>. This work had come about as a result of revisiting previous definitions, as it had been felt that these were outdated and needed revising for the 21st century. At the outset it was recognised that the essential elements of the discipline of general practice/family medicine needed to be defined first, and only when this had been done could the role definition of the family doctor be derived from them.

The definition contains the eleven characteristics which are fundamental to the discipline and are generalisable to all health-care systems in all countries regardless of contextual differences. These were then combined into a role description of the family doctor.

The document does not stop there, but goes on to explore the competencies that are required to become a skilled exponent of the discipline. It describes how these characteristics can be grouped together into six core competencies,

and how the acquisition of these can be converted into abilities every family doctor should be able to master, and eventually into actual performance<sup>9</sup> (see chapter 2).

EURACT developed this thinking further and produced its educational agenda in 2005. EURACT, the European Academy of Teachers in General Practice/Family Medicine, has the constitutional aim to foster and maintain high standards of care in European general practice/family medicine by promoting the discipline through learning and teaching. The *EURACT Educational Agenda*<sup>10</sup> provided a comprehensive framework to teach the core competencies being a blueprint for a common curriculum. The educational agenda is a longitudinal strategy in regard to the learning process, including basic medical education (BME), specialty or vocational training (ST), and continuing medical education (CME)/continuing professional development (CPD), but focussing on specialty training. Based on learning in a primary care setting, it sets learning aims, is based on modern educational methods and monitors progress of learners as well as the achievement of goals. It is developed for educators, curriculum builders, educational boards, policy makers and other medical specialists.

Just like the European definition, the educational agenda is supposed to be applicable regardless of differences in health care systems, educational programmes and health care policies. It aims at harmonization of learning outcomes of educational programmes in general practice/family medicine in all European countries.

General practice/family medicine is an academic and scientific discipline with its own educational content, research, evidence base and clinical activity, and a clinical specialty orientated to primary care. The discipline has a contribution to make to the education of doctors at all stages in their training. Changes in attitudes of medical learners generally occur after learners have the opportunity to grapple with primary care problems themselves and observe their teachers coping successfully with problems presented<sup>11</sup>.

At the *BME level*, all students<sup>12</sup>, irrespective of their future professional career choice<sup>13</sup>, should follow a curriculum, which is directed at enabling them to understand the role and specificity of primary care and general practice<sup>14,15</sup>. Early clinical exposure of medical learners for brief periods from several days to weeks at the beginning of medical school can lay the groundwork for the medical student to help make sense of all medical training<sup>16</sup>. Lectures or small group seminars in the pre-clinical period can be effective in providing some of the *knowledge* required before starting work with patients<sup>17</sup>. The prime peri-

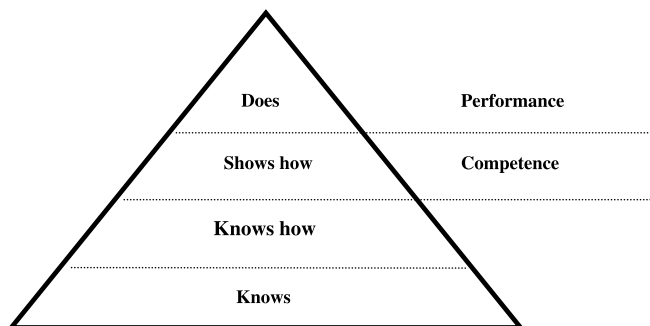


Figure 1: Miller's pyramid

od for training learners in primary care management is the student clerkship/ attachment/rotation in general practice, lasting several weeks occurring in the later years of medical school<sup>18,19</sup>.

The in-depth preparation of medical graduates to gain the *competencies* of family physicians takes place at the *ST level*. This part of medical education usually lasting several years, and in the EU a minimum of three years<sup>20</sup>, allows trainees to acquire the knowledge, skills and attitudes which are essential for safe and effective professional general practice. A large part of the programme will be based on teaching practices<sup>21</sup>.

The *CME/CPD level* comprises the longest phase of professional education (life-long learning). In CME, graduated general practitioners continue to learn and change in practice in a lifelong learning scheme, thus optimizing their actual *performance*. CPD is understood wider as a process of planned and individually tailored learning in practice with a focus on the quality of care<sup>22</sup>. CPD may include the identification of individual learning needs, construction of a learning agenda, drawing a concrete personal learning plan, and controlling this in an educational portfolio format.

Following Miller's terminology of assessment<sup>23</sup> (figure 1), the EURACT Educational Agenda and EUPA define *competence* as the capability to successfully perform discrete observational tasks in a defined assessment environment, in isolation from actual work. It includes the level of "knowing" (basic facts), "knowing how" (able to apply knowledge) and "showing how" (able to show skills) but it excludes the "doing" level, the performance in practice. Competency-based assessments measure what doctors do under examination conditions<sup>24</sup>.

*Performance* is defined as the level of actual performance in clinical care and communication with patients in daily practice. It relates in the Miller terminology to the “doing” level. It is considered highly dependent on existing healthcare conditions and requirements, financial and structural opportunities, practice opportunities and support. Performance-based assessments measure what doctors do in practice.

Rethans and colleagues<sup>25</sup> argue that Miller’s triangle implicitly assumes that competence predicts performance, but that the exact relationship between competence and performance is much more complicated. Factors such as time pressure, day of the week, mood of patient and doctor or impact of the fore-going examination influence clinical performance just as does individual competence in specific domain-related knowledge areas. System-related influences include government programmes and initiatives, patient expectations, guidelines or policies developed by the practice facility, time, and accessibility to other health professionals. Individual-related influences cover the physical and mental health of the GP, their state of mind at the time of the performance assessment, and their relationship with others, including patients, peers, and their own family<sup>26</sup>. Therefore, contemporary assessment demands a more flexible, interactive figure than a pyramid, allowing a view of the performance of an individual doctor from different angles. Rethans et al. have suggested the inversion of Miller’s pyramid, focussing on the top two tiers (figure 2):

Clearly, competence is an important prerequisite for performance, and is therefore represented in the triangle in the centre. But at least two further triangles (system-related and individual-related influences) carry performance on their shoulders, identifying performance as a product of many aspects. EUPA follows this complex model of performance. While it is quite reasonable to seek an association between competence and performance, it is unreasonable to expect it to be strong<sup>28,29</sup>.

The future of the discipline of general practice/family medicine depends on many factors<sup>30</sup>, but certainly these include the quality of actual daily performance of general practitioners in this field. The EURACT Educational Agenda<sup>31</sup> has provided a comprehensive framework to teach the six core competencies outlined in the European definition in BME and ST and to monitor and assess the achievement of goals at the end of training. The Educational Agenda defines a well performing GP as a

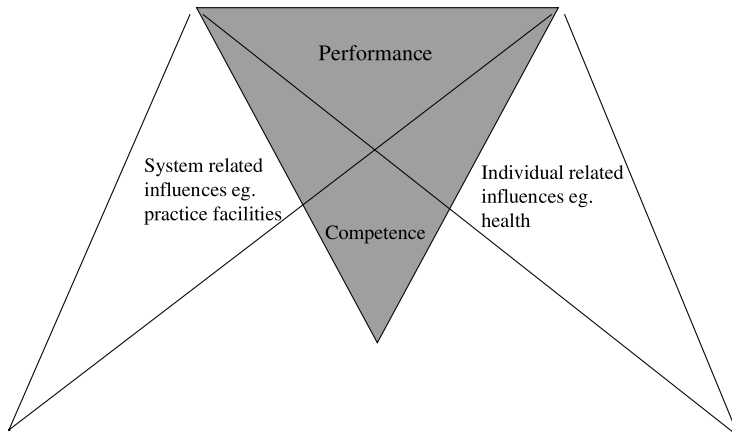


Figure 2: The Cambridge Model for delineating performance and competence<sup>27</sup>

professional which combines, uses and implements different elements of the professional skills in a fluid, normal and interiorized manner, knowing at every moment what are the background options and the key features related to it.

Now the questions remain: In actual practice, after gaining the competencies that are required to become a skilled exponent of the discipline and after finishing ST,

- Do general practitioners perform proper in regard to the six core competencies?
- Where, how and by whom can this be assessed?
- How and from whom can general practitioners get feedback on the identification of learning needs and on optimizing their daily performance?

To provide answers to these questions, EURACT has produced the present *EURACT Performance Agenda* (EUPA), being the third paper in a row following the European Definition of General Practice/Family Medicine by WONCA Europe in 2002, and the EURACT Educational Agenda in 2005. This document will close the loop between teaching knowledge, allowing students and trainees to gain competencies, and assessing actual performance of GPs in daily practice.

The first idea of EUPA was born in EURACT Council in 2007. Following an international study performed in Canada, Australia, New Zealand and the UK<sup>32</sup>, a task force conducted a survey asking all Council delegates from 38 nations

about performance agendas or official documents in specialty training or continuing professional development in their countries. Council delegates from 34 countries responded. It was found that only a very few countries (e.g. UK, Israel) had a comparable document or policy on performance assessment in general practice/family medicine that went beyond a simple list of competencies. After a review of the literature, discussion in small groups involving all EURACT Council members took place over two years, following the chapters of the Educational Agenda and using the same terminology. Design of the document's outline, compilation of the final draft of the chapters focussing on the six core competencies and theoretical framing was done by a small group of authors. The final version of the document was approved by the EURACT Council in October 2013.

EUPA is a general, uniform and basic agenda of performance elements grouped in the six core competencies every general practitioner has to master in daily practice. Like the other two documents, it is supposed to be applicable and adaptable to different countries with different systems instead of being too normative. It deals with the process and result of actual work in daily practice, not with a teaching/learning situation, thus focussing on the CPD level, the longest phase of professional education (see chapter 3). It is concentrating on measurable/observable/assessable performance in general practice, applicable to various tasks (e.g. communication with patients, clinical routines, practice management etc) and in a wide range of settings. Thus, EUPA is *not* a list/directory outlining which competencies, skills and procedures are mandatory for general practice and which ones are optional.

Chapter 2 provides an overview of the six core competencies. Chapters 5 to 10 focus on each of the six. In every chapter, case vignettes of abilities in doctors' daily practice illustrate performance elements, their adequate assessment methods and the role of the assessor (tables 5–20).

The goal of such assessments is to see the whole picture of a practitioner's performance. A varied palette of methods is necessary to achieve this goal<sup>33</sup>. In general, assessment of a practitioner's performance can only be done on-site, at his/her workplace (workplace-based assessment; see chapter 11), preferably by direct observation. Performance assessment should refer to a theoretical framework (see chapter 4), should be organised in a programmatic way, i.e. embedded in daily practice routines, and cannot be improvised or organised as something "external" to continuing professional development (CPD) activities<sup>34,35</sup>. Ensuring

ing the competent clinical performance of practicing doctors on an ongoing basis presents many challenges. The public, its elected representatives, employers, and doctors themselves may all have expectations and anxieties that need to be reconciled<sup>36,37</sup>. Because of the severe consequences an assessment of practice performance may have, it is essential that the procedure is both defensible to the stakeholders and fair in that it distinguishes well between good performers and underperformers<sup>38</sup>. Preferably, these programmes should remain in the hands of the profession, and the role of assessment should be a production tool of meaningful feedback to the individual GP.

The relation of performance assessment to quality management is discussed in chapter 3. The theoretical framework of the psychometrics and edometrics of performance assessment is outlined in chapter 4.

A systematic review has observed six different suitable methods of evaluating performance: simulated patients (unannounced visits<sup>39</sup>); video observation; direct observation; on-site peer assessment; audit/review of medical records; and portfolio or appraisal. Evidence supporting improvement in routine practice is lacking so far<sup>40</sup>. Other authors have suggested other methods, e. g. feedback from patients, feedback from relatives of patients, and feedback from staff, or the use of checklists<sup>41,42,43,44</sup>.

Chapter 11 (glossary) provides more information about the above key performance assessment methods and defines other terms.

EUPA can help to shape various performance assessment activities held locally in general practice/family medicine, such as:

- Continuing professional development (CPD) cycles;
- Re-certification/re-accreditation/re-validation/re-licensing procedures;
- Peer hospitation programmes (e. g. visitatie programme<sup>45</sup>);
- Practice audit programmes in quality management

and can give orientation for self assessment for reflective practitioners in their CPD.

It is hoped that the EURACT Performance Agenda EUPA will encourage European general practitioners to initialize performance agendas adapted to their national health system to further strengthen the role of general practice/family medicine in their country.





## 2 Overview of the six core competencies

The present EURACT Performance Agenda (EUPA) is the third paper in a row following the European Definition of General Practice/Family Medicine (WON-CA Europe) in 2002<sup>46</sup>, and the EURACT Educational Agenda in 2005<sup>47</sup> providing a framework for teaching and assessment.

The EURACT Educational Agenda is derived from the European definition, which defined the eleven characteristics of the discipline, and from them derived six core competencies of family doctors and three essential application features. For each of the six core competencies the EURACT Educational Agenda defines learning objectives, teaching and assessment methods, and makes some notes on time and setting in the curriculum (see chapter 1). The EURACT Performance Agenda (EUPA) focuses on methods and settings to assess the actual performance in the area of the six core competencies (tables 5–20 in the following chapters) to see the whole picture of a practitioner's performance in daily practice.

Defining the discipline of general practice/family medicine and the specialist family doctor leads directly to the core competencies of the general practitioner/family doctor. These competencies should be taught to the basic doctor after BME, and should be maintained as part of lifelong professional performance. For that reason the six core competencies are reflected in the EURACT Educational Agenda as well as in the related EURACT Performance Agenda (EUPA).

Core means essential to the discipline, irrespective of the health care system in which they are applied. In the European Definition they are grouped in three paragraphs, in relation to the discipline (§1), to the practice of the specialty (§2) and some basic features as background (§3).

### §1

The eleven central characteristics that define the discipline relate to eleven abilities that every specialist family doctor should master. They can be clustered into six core competencies. Each cluster is described by their main aspects:

1. **Primary care management** includes the ability:
  - To manage primary contact with patients, dealing with unselected problems;
  - To cover the full range of health conditions;

- To co-ordinate care with other professionals in primary care and with other specialists;
  - To master effective and appropriate care provision and health service utilisation;
  - To make available to the patient the appropriate services within the health care system;
  - To act as advocate for the patient.
2. **Person-centred care** includes the ability:
- To adopt a person-centred approach in dealing with patients and problems in the context of patient's circumstances;
  - To apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient's autonomy;
  - To communicate, set priorities and act in partnership;
  - To provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management.
3. **Specific problem solving skills** include the ability:
- To relate specific decision making processes to the prevalence and incidence of illness in the community;
  - To selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient;
  - To adopt appropriate working principles, e. g. incremental investigation, using time as a tool and to tolerate uncertainty;
  - To intervene urgently when necessary;
  - To manage conditions which may present early and in an undifferentiated way;
  - To make effective and efficient use of diagnostic and therapeutic interventions.
4. **Comprehensive approach** includes the ability:
- To manage simultaneously multiple complaints and pathologies, both acute and chronic health problems in the individual;
  - To promote health and well being by applying health promotion and disease prevention strategies appropriately;
  - To manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation.

5. **Community orientation** includes the ability:
  - To reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources.
6. **Holistic modelling** includes the ability:
  - To use a bio-psycho-social model taking into account cultural and existential dimensions.

## §2

To practice the specialty, the competent practitioner implements these competencies in three important areas:

- a. In the **daily clinical tasks**:
  - Manage the broad field of complaints, problems and diseases as they are presented;
  - Master long-term management and follow-up;
  - Balance evidence and experience in an effective way.
- b. In the **communication with patients**:
  - Structure the consultation properly;
  - Provide information that is easily understood and to explain procedures and findings;
  - Deal adequately with different emotions.
- c. In the **management of the practice**:
  - Provide appropriate accessibility and availability to the patients;
  - Organise, equip and financially manage the practice, and collaborate with the practice team;
  - Cooperate with other primary care staff and with other specialists.

## §3

As a person-centred scientific discipline, three background features should be considered as fundamental:

- a. **Contextual**:
  - Use the context of the person, the family, the community and their culture in diagnosis, decision making and management planning;
  - Show personal interest in the patient and his environment and *be* aware

of the possible consequences of disease for family members and the wider environment (including working environment) of the patient.

**b. Attitudinal:**

- Based on the awareness of one's own capabilities and values;
- Identifying ethical aspects of clinical practice (prevention/diagnostics/therapy/factors influencing lifestyles);
- Justifying and clarifying personal ethics;
- Being aware of the mutual interaction of work and private life and striving for a good balance between them.

**c. Scientific:**

- Being familiar with the general principles, methods, concepts of scientific research, and the fundamentals of statistics (incidence, prevalence, predicted value etc.);
- Having a thorough knowledge of the scientific backgrounds of pathology, symptoms and diagnosis, therapy and prognosis, epidemiology, decision theory, theories of the forming of hypotheses and problem-solving, preventive health care;
- Being able to access, read and assess medical literature critically;
- Adopting a critical and research based approach to practice and maintaining this through continuing learning and quality improvement.

The interrelation of core competencies, implementation areas and fundamental features characterises the discipline and underlines the complexity of the specialty.

It is this complex interrelationship of core competencies that guides and is reflected in EURACT's Educational Agenda and Performance Agenda.

### **3 The relation of performance assessment to quality management**

Janko Kersnik, Zalika Klemenc-Ketis

The definition of performance in the present EURACT Performance Agenda is the level of actual performance of physicians in clinical care and communication with patients in daily practice. Quality management is the evaluation of services provided and the results achieved as compared to accepted standards. The results of health care are compared with standard results and the deficiencies or problems defined serve to plan and introduce improvement actions. In quality management, this is called a PDCA cycle which has four steps:

- *Plan* what we are going to do. In this step we assess where we are, where we need to be, why this is important, and plan how to close the gap. Identify some potential solutions.
- *Do* try out or test the solutions (sometimes at a pilot level).
- *Check* to see if the countermeasures you tried out had the effect you hoped for, and make sure that there are no negative consequences associated with them. Assess if you have accomplished your objective.
- *Act* on what you have learned. If you have accomplished your objective, put controls into place so that the issue never comes back again. If you have not accomplished your objective, go through the cycle again, starting with the planning step.

#### **3.1 Relation of performance assessment to quality assessment**

The aim of any assessment in quality management is to see the level of quality of care (i. e. structure, processes and outcomes of care) in real practice settings. This serves as an indicator of quality level (used e. g. for ranking, certification, accreditation) and/or as a starting point to initiate necessary changes, which should lead to quality improvement, and as a benchmark to be compared with the assessment after change.

Performance assessment is therefore a core procedure of any quality assessment. However, any assessment in quality management has some inherent tendency to change behaviour, practice, and structure in order to get better outcomes. On the other hand, assessment in the educational realm is strictly for

educational purposes in case of formative assessment, or for certification purposes in the case of summative assessment.

In quality management, there is no other way to assess quality of care than by some direct or surrogate way of observation of structure, process and outcomes. In education, knowledge, skills and attitudes as well as competence (see chapter 1) can be assessed by a variety of methods, which yield more or less reliable results with a good supposition that certified doctors will show good performance. Actual performance can be assessed during or at the end of the educational process and is best assessed in physicians' everyday practice settings. However, this is not considered as quality assessment as it is used solely for educational (CPD) or certification purposes. But when performance is assessed with the aim of improving the quality of physicians' work as a part of quality improvement (i. e. repeatedly in different stages of the PDCA cycle), it becomes a method for quality assessment and/or improvement (see also<sup>48</sup>).

## 4 The psychometrics and edometrics of performance assessment

Jean-Marie Degryse, Valéry Dory, Cees P. M. Van der Vleuten

### 4.1 Introduction: performance assessment – climbing Miller’s pyramid

For over more than twenty years now, Miller’s pyramid<sup>49</sup> has been used as a framework to define different levels of assessment of medical competence (see chapter 1). Historically, emphasis has been placed on assessment at the lower layers, directed at knowledge, application of knowledge and demonstration of skills. More recent developments are concentrated at the top: the “does” level. Performance assessment is predominantly assessment in the workplace. Workplace-based assessment<sup>50</sup> is likely to become an essential part of both licensure and re-certification procedures in family medicine. Figure 3 offers an overview of the different assessment methods that are commonly used at different levels of Miller’s pyramid.

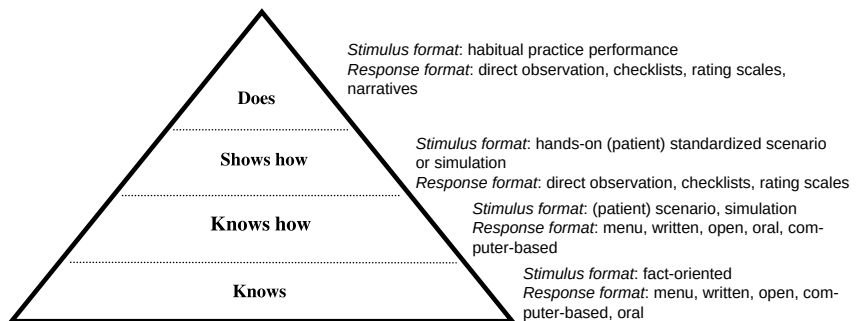


Figure 3: Miller’s pyramid showing different levels of assessment and the associated assessment formats

From the psychometric perspective, workplace-based assessment offers new challenges. Some researchers point to the threats to reliability and validity from uncontrollable variables, such as patient mix, case difficulty and patient num-

bers<sup>i</sup>. Others show that the utility of performance assessment results is compromised by lower inter-rater reliability and rater effects such as halo, leniency or range restriction<sup>51</sup>. As a consequence attempts to improve performance assessment typically focus on standardization and objectivity of measurement by adjusting rating scale formats and eliminating rater errors through rater training<sup>52</sup>.

Traditional psychometric approaches towards assessment tend to focus exclusively on quantitative properties of assessment outcomes. However in this chapter we will advocate that this rigorous psychometric approach might limit more meaningful approaches to performance assessment. Performance assessment is essentially a judgment and decision making process in which rating outcomes are influenced by interactions between individuals and the social context in which assessment occurs. Also, depending on the “stakes” of the performance assessment, the focus as well as the design of the procedure will be different. In a “low stake” context, emphasis will be put on the production of rich and meaningful (multi-source) feedback in order to support and enhance learning. While in a “high stake” context the focus will shift to the gathering and aggregation of information from as many measurements as possible in order to produce a *robust* final judgment and decision as an alternative to a single “final score”. Both designs require viewing of the individual doctor’s performance from different angles as visualized in the inverted Miller’s triangle, the Cambridge Model (see figure 2 in chapter 1).

Performance assessment in daily practice needs a theoretical framework to be scientifically sound. Therefore, the practical chapters 5–10 of EUPA are flanked by this theoretical chapter about the psychometrics and edumetrics of performance assessment. We will first provide an overview of the lessons that can be derived from the assessment literature and three decades of research. They have been synthesized in a paper by Van der Vleuten et al<sup>53</sup> and relate in particular to assessment of the three first layers of Miller’s pyramid. We will then confront those with the typical demands and constraints of workplace-based assessment and present some of the solutions and alternative approaches that have been proposed to assess medical competence at the top layer.

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<sup>i</sup> We use Workplace-Based Assessment here as a term that relates to performance assessment in a “real life” professional environment (see chapter 11 – Glossary).



## 4.2 Lessons learned from three decades of research

### 4.2.1 *Competence is specific, not generic: Content specificity as a central issue in assessment of medical competence*

An issue that dominates (bedevils) every effort to develop a reliable assessment procedure at any level of Miller's pyramid is the problem of "content-specificity". In assessment of medical competence, more than in any other field, the scores on a test (or a case, or an item) that was designed to assess a specific content domain predict scores on another domain very poorly. This variability of performance of candidates across task appears to be one of the most consistent findings in all measurements of clinical competence<sup>54</sup>. A direct consequence of this *content-specificity* is that assessment blueprints must ensure broad sampling across a huge variety of task in order to achieve sufficient reliability. Or in other words: tests containing a small sample of items (stations, observations, tasks, patient encounters) produce unstable or unreliable scores. Obviously this will also vary with the size of the domain being assessed, but even in smaller content domains the required sample size of test items/cases is usually high. In this respect some testing methods that allow broad sampling in less time might be considered as more reliable per unit of testing time than tests requiring more time per item. In order to produce adequate reliability coefficients within a high stake context, one should take into account that even efficient tests usually require several hours of testing time<sup>55</sup>.

Research on a variety of assessment methods has consistently revealed that the most important determinant of score reliability is test length as is illustrated from the overview in table 1. Other determinants of variability that challenge the reliability of assessments, such as rater, patient or observer variability, are usually either less important or easier to control.

A second practical consequence of this content specificity phenomenon is that when limited resources are available, the design of the assessment procedure should preferentially be adapted so that broad sampling of the domain that will be tested is guaranteed and a maximum number of cases/items is introduced. For instance when a limited number of observers are available as raters of performance in stations in an Objective Structured Clinical Examination (OSCE), it is preferable to spread those over double as many stations instead of appointing them in pairs to half the number of stations<sup>56</sup>.

Testing Time in Hours	MCQ <sup>1</sup>	Case-Based Short Essay <sup>2</sup>	PMP <sup>1</sup>	Oral Exam <sup>3</sup>	Long Case <sup>4</sup>	OSCE <sup>5</sup>	Mini CEX <sup>6</sup>	Practice Video Assessment <sup>7</sup>	Incognito SPs <sup>8</sup>
1	0.62	0.68	0.36	0.50	0.60	0.47	0.73	0.62	0.61
2	0.76	0.73	0.53	0.69	0.75	0.64	0.84	0.76	0.76
4	0.93	0.84	0.69	0.82	0.86	0.78	0.92	0.93	0.92
8	0.93	0.82	0.82	0.90	0.90	0.88	0.96	0.93	0.93

<sup>1</sup>Norcini et al., 1985

<sup>2</sup>Stalenhoef-Halling et al., 1990

<sup>3</sup>Swanson, 1987

<sup>4</sup>Wass et al., 2001

<sup>5</sup>Petrusa, 2002

<sup>6</sup>Norcini et al., 1999

<sup>7</sup>Ram et al., 1999

<sup>8</sup>Gorter, 2002

Table 1: The reliability as a function of testing time (Van der Vleuten et al 2005<sup>91</sup>)

If observational test methods are used (as in level 3 or 4 of Miller’s pyramid), other secondary factors might improve reliability. Standardization of the content of the assessment, as well as training of the observers, might contribute to a further improvement of the reliability.

A final issue that should be addressed here is that “reliability is relative” i. e. the reliability of a measure is intimately linked to the population to which one wants to apply the measure. There is literally no such thing as the reliability of a test. A reliability coefficient has meaning only when applied to a specific population. Reliability is not a fixed characteristic of an assessment method but will depend upon the “true variability” of the scores in a population.

In order to understand this statement, we should consider the way reliability is conceptualized in classical test theory. Reliability is defined as the relationship between the “true variance of the scores” to the observed variance of test scores, the latter being defined as the sum of the true variance and a variance linked to measurement error. In a formal way this can be expressed as:

$$reliability = \frac{\sigma_t^2}{\sigma_o^2} = \frac{\sigma_t^2}{\sigma_t^2 + \sigma_e^2}$$

Thus the reliability coefficient expresses the proportion of the total variance in the measurements ( $\sigma_t^2 + \sigma_e^2$ ) that is due to “true differences between subjects” ( $\sigma_t^2$ ). If  $\sigma_e^2$  is zero, the reliability coefficient will be 1. Assuming that  $\sigma_e^2$  remains constant, higher  $\sigma_t^2$  will produce higher reliability coefficients.

### 4.2.2 Objectivity is not the same as reliability

Reliability does not co-vary with the objectivity of methods. The so called “subjective” tests can be reliable and objective tests can be unreliable, all depending on the sampling and the method<sup>57</sup>. As an example we can refer to the historical development of the Objective Clinical Examination format. The OSCE was originally designed in order to overcome the problem of subjectivity that was present in classical clinical exams. The solution was sought in objectivity and standardization of the score forms and cases and in training of the observers. However the reliability of the OSCE turned out to be as dependent of the broad sampling of its content (i. e. the stations) as any other method<sup>58</sup>. Table 2 shows the effect of test length (expressed as number of stations) on the reliability of a typical OSCE that is part of a national licensing examination of family physicians in Flanders.

Test length (minutes)	Number of stations	Reliability index	
		Norm referenced	Domain referenced
80	10	.60	.55
120	15	.69	.64
160	20	.75	.71
200	25	.79	.75
240	30	.82	.78
280	35	.84	.81
320	40	.86	.83

Table 2: Reliability indices of the OSCE as a function of testing time (Degryse 2003)

Another interesting finding from research on the OSCE is the strong correlation that was found between global rating scales and checklist ratings<sup>59</sup>. Global ratings are associated with a slight decrease in inter rater reliability, but this was offset by a larger gain in inter station reliability.

Compared with the more analytical checklist scores, global holistic judgments tend to pick up on elements in candidates’ performance which were more generalisable across stations. This is a clear and intriguing first indication that human expert judgment could add (perhaps even incrementally) a meaningful “signal” to measurement instead of “noise”<sup>60</sup>.

Another issue that should be addressed here is that reliability is not necessarily related to agreement between judges/raters and in some cases it can even be inversely related to it! The scores produced by different raters in an observational test can vary consistently but still generate reliable mean scores. On the other hand, if all candidates on all occasions are rated above average, the agreement among raters is perfect but the reliability by definition is zero. What actually happens is an intriguing and somewhat paradoxical interaction between the problem of content specificity and assessor variability. The global nature of the judgment may be more subjective, but it dampens or attenuates the content specificity problem and therefore leads to improved reliability overall.

### 4.2.3 *Compromising and making informed choices*

Every assessment procedure is a by definition a compromise. The selection of a particular assessment method may involve factors that are not of a psychometric nature. Trade-offs between what is desirable and achievable or feasible are inevitable.

In order to clarify the compromises involved, Van der Vleuten et al.<sup>61,62</sup> have presented some years ago a model to define the utility of an assessment method (figure 4). Reliability (R), Validity (V) and educational impact (E) should be part of the model for obvious reasons<sup>ii</sup>. However, in educational practice the choice of a particular assessment method will often be influenced by other considerations such as opinions, sentiments and traditions of teachers, students and institutions. That is why the model introduces two additional variables: the acceptability (A) and the cost (C) and logistic burden induced by the procedure. The utility of an assessment method is represented by an equation in which the relationship among variables is deliberately conceived as multiplicative. If one of the elements is zero, the utility will be zero.

In practice, one will always be required to compromise and assign different weights in different individual situations, depending on the context and purpose of the assessment. In situations where the assessment involves a high-stake examination with decisions having marked consequences on the future of ex-

<sup>ii</sup> It should be noted that from a psychometric perspective reliability and validity are not independent variables. Reliability is a prerequisite for validity. The reliability determines the maximum validity that can be achieved. The relation between reliability and validity can be expressed mathematically as follows:  $r_{ig} = \sqrt{r_{ii}}$  where  $r_{ii}$  stands for reliability and  $r_{ig}$  for the validity of a test.

aminees, reliability will probably bear a heavier weight. While in the context of in-training assessment, where the final decision is based on many assessments, one would probably be prepared to compromise more on reliability in favour of the educational impact of the assessment<sup>63</sup>. In other situations a higher weight should be attributed to the potential educational impact of a procedure even if one has to compromise on reliability. For instance in a CPD programme, a less reliable test procedure might be preferred due to the inherent signal it sends out which guides life-long learning of practitioners on a micro and macro level. In this context it is essential that the assessment procedure is at its most transparent in order to allow the communication of information and an optimal steering effect.

$U = w_r R \times w_v V \times w_e E \times w_a A \times w_c C$		
U = Utility	R = Reliability	V = Validity
E = Educational impact	A = Acceptability	C = Cost
W = Weight		

Figure 4: The utility function of an assessment procedure

**4.2.4 *What is being measured is determined more by the stimulus format than by the response format***

It has often been assumed that different assessment methods measure different aspects of medical competence. Summative assessment procedures and/or licensing exams have often purposefully been designed as a battery of tests with different formats. The underlying assumption has been for instance that Multiple Choice Question (MCQ) tests would focus on knowledge, OSCEs on clinical skills, and more sophisticated written tests or computer based tests on elements of clinical reasoning.

However, research has revealed that what is being measured is determined more by the stimulus format than by the response format. Provided the scores are reliable (which can be ensured by broad sampling), scores obtained on tests using different formats generally correlate with each other quite well. Cognitive activities follow the task that is posed in the stimulus format. A well designed

written knowledge test with rich contextual clinical vignettes can measure much more than factual knowledge, and conversely a poorly designed OSCE can target only rudimentary, decontextualized, and technical skills. Validity – what is being measured – is not so much determined by the response format as by the stimulus format<sup>64</sup>.

A practical consequence is that test developers should worry more about designing appropriate stimulus formats than about appropriate response formats. In developing stimuli, *authenticity* is essential also, provided the stimulus is tuned to the appropriate level of complexity. The first OSCEs consisted of short stations assessing clinical skills in a fragmented manner (e.g. station 1: examination of the shoulder, station 2: abdominal examination, station 3: communication), which may be defensible at early stages of training. But, at a more advanced stage of training, integrated skills assessment is obviously a more appropriate stimulus format, since it provides a closer approximation of real clinical encounters.

#### ***4.2.5 Assessment drives learning***

The impact of assessment, from selection to certification, on learning is significant<sup>65</sup>. Before assessment even occurs, it influences learning by providing an external motivation and also by providing learners with cues which they will interpret in order to conduct and regulate their learning<sup>66</sup>. Learners are generally strategic in their efforts. They will allocate time and select learning and regulation strategies according to their understanding of the task at hand. This can lead to negative effects, e.g. learners using surface strategies such as rote learning to prepare for MCQs, or indeed memorizing OSCE checklist items. This can lead to a trivialization of the learning endeavour and counteract the effects of other components of the curriculum<sup>67,68</sup>.

During a test, learners are provided with an opportunity to practice a task which in itself can lead to improved performance. This type of impact is referred to as the testing effect and has been demonstrated for both tests of knowledge and tests of skills<sup>69,70</sup>.

Assessment also has a significant impact by providing feedback to learners, what Norcini et al refer to as the catalytic effect of assessment<sup>71</sup>. Feedback has been shown to be conducive to learning providing a certain number of conditions are met: the feedback should be timely, specific, based on observation, pro-

vided by a credible person, and qualitative rather than numerical<sup>72,73,74</sup>. Indeed feedback is not necessarily assimilated directly by learners. A study on general practitioners receiving multisource feedback found that assimilation depended on a process of reflection which balanced external feedback with evaluations based on self-assessment<sup>75</sup>. This process was also influenced by the emotional reaction of learners to feedback. Negative feedback that was inconsistent with an individual's self-assessment was more likely to be discounted. The authors suggest that this reflective process could be facilitated by a coach: interpreting feedback and using these interpretations to steer learning should be viewed as a complex sense-making process influenced by social interactions and the learning climate.

In view of the significant impact of assessment on learning, several authors have called for a shift from assessment of learning to assessment for learning, in which assessment is viewed as a key component of the curriculum and is used strategically to foster desirable learning behaviours<sup>76</sup>.

### **4.3 Assessing competence at the “does” level**

Any assessment at the top level of Miller's pyramid in an authentic context, will rely to a large extent on “expert judgment”. The term expert should be interpreted broadly to include peers, supervisors, co-workers, teachers, and anyone knowledgeable about the work of the trainee/doctor, perhaps even the learner him or herself. The assessment consists of gathering these judgments in some quantitative or qualitative form. As with OSCEs the dominant response format is some form of observation structure (numerical rating scale, scoring rubrics, free text boxes) on which a judgment is based. Unlike the OSCE, however, the stimulus format is the authentic context, which is essentially unstandardized and relatively unstructured. In addition to scoring performance on rating scales, assessors are often invited to write narrative comments about the strengths and weaknesses of a learner's performance. Roughly sketched two types of assessment instruments have been used. The first involves judgment of performance based directly on observation or on the assessor's exposure to the learner's performance. The second consists of aggregation instruments that compile information from multiple sources over time<sup>77</sup> (table 3).

Direct performance measures	
<ul style="list-style-type: none"> <li>• <b>Individual encounter methods</b>      <i>Assessment is confined to a single concrete situation</i></li> </ul> e.g. Mini-clinical-evaluation exercise (Mini-Cex) Direct observation of practice skills (DOPS) Professionalism mini-evaluation (P-Mex) Video-observation of clinical encounters	
<ul style="list-style-type: none"> <li>• <b>Long-term methods</b>                      <i>Performance is assessed over a longer period of time</i></li> </ul> e.g. Peer assessment Multisource or 360 ° feedback (MSF)	
Aggregation methods	
e.g. Logbook Portfolio	<i>Continuous sampling of performance</i>

Table 3: Overview of methods used to assess medical competence at the “does” level

### 4.3.1 A sample is required to achieve reliable inferences

All modern methods of assessment at the “does” level allow for frequent sampling across educational or clinical contexts and across assessors. The need to deal with content specificity (see above) means that sampling across a range of context remains invariably important<sup>78</sup>. The subjectivity of expert judgments needs to be counterbalanced by additional sampling across assessors in order to produce “aggregated” information. Rather than targeting the production of a “reliable” final score, the final aim of any assessment at the “does level” will be to produce a robust judgment.

### 4.3.2 Bias in expert judgment

Global judgments are prone to bias, probably much more than structured analytical methods. Two examples: with direct observations, inflation of scores has often been noted<sup>79</sup>, and in multisource feedback, careless selection of assessors can induce important bias<sup>80</sup>. The context in which the assessment takes place is another important potential source of bias in particular when the assessor(s) have an educational relationship with the trainee or junior doctor. They might be tempted to inflate scores to avoid negative impacts on learners, the relationship or themselves (e.g. having to justify failing a learner)<sup>81</sup>. One solution to reduce this type of bias could be to remove the summative aspect of the assessment from the individual encounter. The tutor/assessor should not assess whether the learner is a good doctor, but concentrate on what happens in a specific encoun-



ter in order to produce meaningful feedback. Summative decisions (pass/fail) should be based on multiple sources of assessment within and across methods and should preferentially involve external assessors. As mentioned earlier: the robustness of the final decision will rely on the meaningful aggregation of different sources of information.

There is a growing interest in understanding rater cognition. Initial studies suggest that in the same way as doctors use illness scripts and examples of actual patients to diagnose diseases, raters use mental models or scripts of learner performance and perhaps exemplars of prior learners to gauge learner performance<sup>82,83,84,85</sup>. This may explain the somewhat idiosyncratic nature of judgments based on personal experience with learners. Training may help communities of raters develop shared mental models and improve the consistency of ratings across raters.

### *4.3.3 The role of self-assessment*

Trainees as well as practicing doctors are very poor self assessors<sup>86</sup>. Broadly speaking, self-assessment is a judgment one makes about oneself. Different authors have put forth different categories of self-assessment. Eva et al.<sup>87</sup> have proposed to distinguish broad self-assessment (e.g. do I have a good sense of humour? Am I good enough in managing congestive heart failure?) from self-monitoring which is a more specific moment-to-moment evaluation of how one is doing during an activity. They suggest that broad self-assessment is mainly relevant to continuing professional development which often relies on doctors to assess their learning needs and select appropriate activities, whereas self-monitoring is mainly relevant to autonomous practice (e.g. knowing when to look something up or refer a patient to someone else). Dory et al.<sup>88</sup> have proposed a four-category classification which distinguishes further between each of the two levels proposed by Eva et al., with the most general level referring to sweeping evaluations such as self-concept and self-esteem, and the most specific referring solely to metacognitive monitoring, i.e. monitoring of one's mental processes. Self-assessment, particularly at the most general levels, has been found to be inaccurate. This is partly due to issues related to aggregating information from memories of several relevant episodes, but also to judgment biases such as the "above-average effect", i.e. most people believe that they are above average in a wide variety of domains, which of course cannot be the case<sup>89</sup>.

The practical implication is that self-assessment can never stand on its own and should always be triangulated with other information. Self-assessment should not on the other hand be discarded altogether. As a previously cited study has indicated, self-assessment influences reflection on feedback and coaches should pay deliberate attention to self-assessment when facilitating this process of reflection<sup>90</sup>.

#### ***4.3.4 Formative and summative functions are typically combined***

Within a classical psychometric framework a clear distinction is made between formative and summative assessment procedures since both the design and the psychometric requirements of the test depend on the purpose of the assessment.

Within a more “edumetric” framework that underpins assessment at the “does” level, an integration of formative and summative functions is advocated. Without formative value, the summative function would be ineffective, leading to trivialization or alienation of the assessment and introduce the risk of a negative effect on the learning process. Also, “no single method can do it all”. Every assessment method and every single point assessment has its own limitations.

Van der Vleuten & Schuwirth<sup>91</sup> therefore strongly advocate a “programmatic approach” of assessment in which assessment and learning are salient. Assessment in general and performance assessment in particular should be embedded in the curriculum (for trainees) or in daily practice (for licensed doctors). Such programmes of assessment cannot be improvised and should be planned, prepared, implemented, evaluated and improved. An assessment programme can be conceptualized as a purposeful collection of assessment moments, i. e. assessment data points. From the sum of those judgments a global picture will emerge that is more than the sum of the individual measurements. The programme should be aligned to the curriculum objectives (for trainees) and/or the job description (for practicing doctors). It should both foster learning and allow sound decisions to be reached. Within such programmes a meaningful aggregation across the available multiple assessment sources is advocated, that is *triangulated* with complementary judgments by external assessors ultimately leading to a defensible and robust summative pass/fail decision.

### ***4.3.5 Qualitative, narrative information carries a lot of weight***

The assessment literature has been dominated over the last two decades by the psychometric paradigm and has focused on the development of reliable and valid (normative) measurement instruments that produce scores based on quantifiable concept and quantitative methods. Within the complementary edumetric framework the main focus of assessment is shifted to producing meaningful feedback for learners. Successful feedback is conditional on social interaction. Feedback that consists of nothing more than quantitative information or a score is not very meaningful. Narrative and qualitative information should complement and enrich the feedback. Effective formative assessment is predicated on qualitatively rich information. As a practical consequence rating forms should provide the possibility for assessors to provide complementary narrative feedback.

### ***4.3.6 Summative decisions can be rigorous by using non-psychometric qualitative research procedures***

Within the proposed edumetric framework rigor can be defined in a similar way as in qualitative research. The concept of “trustworthiness” has been put forth<sup>92</sup>, and the conventional notion of internal validity is replaced by credibility, external validity by transferability, reliability by dependability and objectivity by conformability.

Table 4 presents some examples of assessment strategies that mirror these trustworthiness strategies and criteria as they have been proposed by Van der Vleuten et al<sup>93</sup>.

## **4.4 Miscellaneous issues**

### ***4.4.1 Noise and signal in performance assessment***

A fundamental issue, far beyond any psychometric reasoning, is the question of the “nature” of medical competence and performance in family medicine. Is the GP who provides good quality care for the 90 percent of daily “trivial” problems performing better than the GP who demonstrates particular acumen in dealing with 10 per cent of particularly challenging conditions/clinical problems s/he will be confronted with? This philosophical question is at the heart of the matter in the debate on how performance should be measured, judged and evaluated.

Strategy to establish trustworthiness	Criteria	Potential Assessment Strategy (sample)
Credibility	Prolonged engagement	Training of examiners
	Triangulation	Tailored volume of expert judgment based on certainty of information
	Peer examination	Benchmarking examiners
	Member checking	Incorporate learner view
	Structural coherence	Scrutiny of committee inconsistencies
Transferability	Time sampling	Judgment based on broad sample of data points
	Thick description	Justify decisions
Dependability	Stepwise replication	Use multiple assessors who have credibility
Confirmability	Audit	Give learners the possibility to appeal to the assessment decision

Table 4: Potential strategies related to qualitative research methodologies for building rigor in assessment decision

We advocate that within a performance assessment programme both the core competencies as well as the more specific/advanced competencies should be looked at, reflecting the complexity of real practice.

#### 4.4.2 What is “unacceptable” performance?

From a psychometric point of view medical competence has often been conceptualized as a “continuous variable” and measured by more or less sophisticated instruments that produce a reproducible and valid score – an approach that can be challenged and debated. Is unacceptable or extremely poor performance a “normative” problem that has to be identified by a “cut-off” score (i.e. a minimum standard)? Or should “poor-unacceptable performance” of a licensed experienced doctor be assessed using a more defensible qualitative approach, i.e. conceptualised as a categorical or nominal variable? Such an approach is based on the assumption that “unacceptable performance” is an extra-ordinary performance that cannot be captured within the logic of a “continuum”. Therefore the term “poor performance” might have to be substituted by another term: for instance “aberrant” performance. We think the instruments aimed at identifying (or screening for) “aberrant” performance in a “rigorous” way, should be different from traditional instruments that have been put forth so far in the literature

and that such judgment should rely on holistic judgments by external assessors, using multi-source feedback, chart review, critical incident analysis and a personal interview.

## **4.5 Conclusion**

From the psychometric perspective workplace-based assessment offers new challenges. Traditional psychometric approaches tend to focus exclusively on quantitative properties of assessment outcomes. Within the proposed complementary edumetric framework, inspiration is found in methodologies from qualitative research and the focus shifts to the gathering of rich contextual information and the role of assessment as a production tool of meaningful feedback to the learner. Broad sampling of meaningful and rich contextual information across educational or clinical contexts and across assessors remains essential in order to produce aggregated information from which – depending on the stakes of the performance assessment – a “robust” final judgment and decision can be made.

Finally, performance assessment should be embedded in the curriculum (for trainees) or in daily practice (for licensed doctors). Such programmes of assessment cannot be improvised and should be planned, prepared, implemented, evaluated and improved. The EURACT Performance Agenda (EUPA) may help to shape and sharpen this process.



## 5 Primary care management

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**Primary care management** includes the ability:

- To manage primary contact with patients, dealing with unselected problems;
- To cover the full range of health conditions;
- To co-ordinate care with other professionals in primary care and with other specialists;
- To master effective and appropriate care provision and health service utilisation;
- To make available to the patient the appropriate services within the health care system;
- To act as advocate for the patient.

### 5.1 Introduction

In everyday practice primary care management involves taking the history and systematic assessment of the patient, making a proper diagnosis, responding appropriately to the patient needs, cooperating with other team members and health care specialists in order to offer proper services for the patient as well as preventing unnecessary services and treatment. This includes the system of record-keeping and information management and ways of organizing care within a practice or PHC team.

Primary Care Management should reflect the following traits:

- Knowledge about epidemiology of problems presented by patients in primary care;
- Understanding of the natural history of common conditions;
- Skills for working with colleagues and in team;
- Understanding of the structure, roles and responsibilities of the primary health care team as being ever larger and more complex;
- Understanding of the primary care organization and informational medical technologies;

- Ability to provide effective problem management with drug and non-drug approaches;
- Effective communication skills;
- Value the primary care approach;
- Understanding of the probabilities and evolution of conditions in primary care which comes principally through experience therefore is often not fully developed until after formal training.

## 5.2 Assessment methods

Assessment of primary care management skills requires a variety of methods:

Case based discussion (CBD), structured oral interview used in general practice, across a range of competency areas; the starting point is the written record of cases selected by the GP.

Consultation observation tools (COT), tools to assess consultation skills, can be used to assess video recorded consultations or during direct observation in general practice settings.

Multi-source feedback (MSF), assessment of clinical ability and professional behaviour, rated by five clinical colleagues, two occasions or rated by five clinical and five non-clinical colleagues on two occasions; needs skill of assessor in giving feedback.

Naturally occurring evidence (NOE), from direct observation, “tagged” against appropriate competency headings, other practice-based activities, clinical supervisor’s reports (CSR).

Patient satisfaction questionnaire (PSQ), measures consultation and relational empathy, can differentiate between doctors; needs skill of assessor in giving feedback.

Performance audit (PA) refers to an examination of a programme, function, operation or the management systems and procedures to assess whether the entity is achieving economy, efficiency and effectiveness in the employment of available resources. The examination is objective and systematic, generally using structured and professionally adopted methodologies.

Review of patient records (RPR), review of the collection of documents that provides an account of each episode in which a patient visited or sought treatment and received care or a referral for care from a health care facility.



Simulated patient (SP), or standardized patient (SP) (also known as a patient instructor) in health care is an individual who is trained to act as a real patient in order to simulate a set of symptoms or problems.

### 5.3 Documentation tools

A variety of tools can be used: Patient satisfaction questionnaires, consultation assessment tools, portfolios etc. One possible example of assessment of chronic patient management is given below:

Characteristic	Quality level: from 1 (is not done at all) to 5 (done appropriately)				
Assessment of Patient's Needs	1	2	3	4	5
Goal Setting/Action Planning	1	2	3	4	5
Problem-Solving	1	2	3	4	5
Emotional Health Assessment	1	2	3	4	5
Patient Involvement	1	2	3	4	5
Patient Social Support	1	2	3	4	5
Patient Self-management Education	1	2	3	4	5
Continuity of Care	1	2	3	4	5
Coordination of Referrals	1	2	3	4	5
Case Documentation	1	2	3	4	5

### 5.4 Abilities

#### ***Ability 1: To manage primary contact with patients, dealing with unselected problems.***

*Case vignette.*

*Chris Butler, a man of 58 years of age, visits his GP as the last patient of a row of 20, just before 6 pm. The patients of that afternoon had a variety of problems, e.g. onychomycosis, postpartum depression, diabetes mellitus type 2 and a tumour in the left breast. Ten however, had complaints that could easily be related to the flu, of which there is an epidemic outbreak at that moment. Chris Butler complains of “not feeling well” and aching of his thoracic muscles. He asks for “something against the flu”, because he does not want to take time off from work. The GP, however, asks him to answer some questions, first. The reason to do so, at this late hour, is*

that this patient rarely visits the practice, has a family history of cardiovascular disease (several heart-attacks before the age of 60) and looks “off”. The history and physical examination increases the GPs gut-feeling that there is something serious going on: the patient reports that the muscular aching is exercise-related, his forehead is moist, he has a tachycardia (100/min) and his blood pressure is 175/110 mmHg. The wife is phoned by the practice nurse and the ambulance is ordered. The GP phones the cardiologist. 20 minutes later Chris Butler leaves the practice in the ambulance with the diagnosis: suspect of myocardial infarction.

Features of this ability	Assessment method	Who could assess?
Does the GP show his/her ability to include facts from earlier contacts and family history?	<ul style="list-style-type: none"> <li>• Simulated patients</li> <li>• Video observation</li> <li>• Trainers opinion</li> </ul>	<ul style="list-style-type: none"> <li>• Staff</li> <li>• Trainer</li> <li>• Observers</li> <li>• Test evaluator</li> </ul>
Does the GP interpret undefined complaints well, in spite of: low likelihood or misleading circumstances (flu epidemic)?		
Does the GP take time to carefully interrogation and examination despite the time pressure?		
Does the GP know morbidity figures related to patient characteristics?		

Table 5: To manage primary contact with patients, dealing with unselected problems

### ***Ability 2: To cover the full range of health conditions.***

The doctor has to bring a patient list for the previous (full) day – that is a list showing all the patients seen in the clinic by this doctor on the previous day. It should include:

- Sex;
- Age;
- Reason for encounter;
- Medical records for the patients on the list.

This list should be brought for discussion with the trainer/supervisor.

Features of this ability	Assessment method	Who could assess?
A list demonstrating a variety of patients regarding sex, age and reasons for encounter	<ul style="list-style-type: none"> <li>• Review of patient records</li> <li>• Discussion with supervisor/trainer</li> </ul>	<ul style="list-style-type: none"> <li>• Trainer</li> <li>• Peer</li> <li>• Educational authority</li> </ul>
The doctor demonstrates in the medical records and in the discussion that he is working with the problems presented to him.		

Table 6: To cover the full range of health conditions

***Ability 3: To co-ordinate care with other professionals in primary care and with other specialists.***

*Case vignette.*

*Monica Gustavsson, a 63 years old female patient with diabetes mellitus type 2, shows up with a chronic ulcer on the left lower limb. The ulcer has been treated according to the doctor's instructions. Monica attends for a check-up after three weeks; the nurse makes the observation that she sees no improvement, telling the patient: "If things continue this way you are going to have serious problems, losing your leg because of the doctor." The nurse goes to doctor saying it is his fault that Monica Gustavsson's wound is not improving. How should this situation be handled?*

Features of this ability	Assessment method	Who could assess?
Minimum time spent in contact with other professionals	<ul style="list-style-type: none"> <li>• Patient satisfaction</li> <li>• Multisource feedback (computerized possibility)</li> <li>• Performance audit</li> </ul>	<ul style="list-style-type: none"> <li>• Patient</li> <li>• Other medical profession</li> <li>• Trainer</li> </ul>
Notes in the medical file of the opinions of the others, or using integrated system of database, access to hospital patients records		
Patient satisfaction in observing teamwork		

Table 7: To co-ordinate care with other professionals in primary care and with other specialists

***Ability 4: To master effective and appropriate care provision and health service utilization.***

*Case vignette.*

*The GP is called for neonatal visit to the 9 days old baby Caroline. She knows the family well. The mother is a 39 years old lady and during the first period of the pregnancy she supported flu. At the visit the parents look very sad and discouraged. According to the medical conclusion given from maternity hospital Caroline has serious health problems.*

Features of this ability	Assessment method	Who could assess?
Does the GP think to involve another care provider?	<ul style="list-style-type: none"> <li>• Discussion with GP</li> <li>• Direct or video observation</li> <li>• Review of patient records</li> <li>• Simulated patient</li> <li>• Patient satisfaction questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>• Trainer</li> <li>• Peer</li> <li>• Observer</li> <li>• Other health care providers</li> <li>• Patient</li> </ul>
Does the GP assess patient needs?		
Does the GP has knowledge about health care structure and he goes to contact the right persons, to use all available recourses?		
Does the GP have good communication with other health care providers?		

Table 8: To master effective and appropriate care provision and health service utilization

**Ability 5: To make available to the patient the appropriate services within the health care system.**

*Case vignette.*

*Maria Parini, a 56 years old female patient visits her GP because of chronic low back pain lasting more than four months. She was examined thoroughly by her GP and has no serious disease needing neurosurgery. She has sleeping problems, is tired because of pain, depressed and seems disturbed. Maria Parini works as sales-clerk in a little shop, and has difficulties being on her feet all day. She uses NSAIDs, which have little or no effect.*

Features of this ability	Assessment method	Who could assess?
Does the GP show good communication skills covering all possible affects of the pain to the patient everyday life: physiologic, psychological and psychosocial aspects?	<ul style="list-style-type: none"> <li>• Simulated patients</li> <li>• Video observation</li> <li>• Discussion with trainer</li> </ul>	<ul style="list-style-type: none"> <li>• Simulated patient</li> <li>• Trainer</li> <li>• Peer</li> </ul>
Does the GP take enough time for detection possible psychosocial, environmental or social barriers to recovery (job dissatisfaction, depression or anxiety disorder etc.)?		
Does the GP involve to the treatment spine-care education and active exercise programmes using physiotherapists, back-schools, cognitive-behavioural support or other available resources?		
Does the GP use tricyclic antidepressants as approved treatment of chronic back pain?		

Table 9: To make available to the patient the appropriate services within the health care system

## ***Ability 6: To act as advocate for the patient.***

*Case vignette.*

*Dusan Smilic is a 75 years old male patient, who has coxarthrosis (OA). His GP prescribed him NSAIDs, which are covered by his health insurance. NSAIDs were effective in relieving the pain and improving the functioning, but the patient also consulted an orthopaedist, who suggested using cox-2-inhibitors which are actually not covered by the health insurance. Dusan Smilic now asks his GP what he should do. You as a GP are sure that there is no necessity to change the treatment which is effective and cheap into a treatment with similar effectiveness but being 10 times more expensive.*

How should the GP demonstrate now the role of advocate of the patient?

He should contact the specialist and ask why the specialist decided to change the treatment, explain his own personal opinion regarding this issue, also the patient's problems relating the more expensive treatment.

Then he should suggest the patient not to change the treatment and explain why there is no need.

<b>Features of this ability</b>	<b>Assessment method</b>	<b>Who could assess?</b>
Does the GP demonstrate active advocacy against the third party (in this case orthopaedist)?	<ul style="list-style-type: none"><li>• Simulated patients</li><li>• Video observation</li><li>• Direct observation</li></ul>	<ul style="list-style-type: none"><li>• Trainer</li><li>• Simulated patient</li><li>• Observer</li><li>• Peer</li></ul>

Table 10: To act as advocate for the patient

## 6 Person-centred care

Okay Basak, Elena Frolova, Sandra Gintere, Filipe Gomes,  
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**Person-centred care** includes the ability:

- To adopt a person-centred approach in dealing with patients and problems in the context of patient's circumstances;
- To apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient's autonomy;
- To communicate, set priorities and act in partnership;
- To provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management.

### 6.1 Introduction

General Practice/Family Medicine positions itself as a “person-centred medicine” with commitment to the person rather than to a particular body of knowledge, seeking to understand the context of the illness, and attaching importance also to the subjective aspects of medicine<sup>94</sup>.

Person centred approach is more a way of thinking than just a way of acting. It means seeing the patient always as a particular person in a particular context and it includes a total health perspective of a patient, not only the disease elements that can be recognised in the problems and complaints<sup>95,96</sup>.

In this complex process, evolving over time, the doctor-patient relationship is often called “sustained partnership”<sup>97</sup> – referring to a mutual and full engagement over longer periods and to the patient's participation and responsiveness.

The patient centred clinical method is at the base of general practice/family medicine. Its main elements are:

- Understanding the person as a whole – an integrated human person in his or her context;
- Exploring always illness and disease in relation to the person and the context, taking into account the patient's ideas, feelings and expectations;

- Finding common ground that can lead to mutual plans, keeping the patient in the centre of all decisions and respecting his or her autonomy;
- Acting in a partnership with asymmetric but defined roles and responsibilities, always enhancing the doctor-patient relationship;
- Incorporating prevention and health promotion in balance with all elements of disease management;
- Being realistic about time and resources and act in a concrete and solution-focused way<sup>98</sup>.

Person centred care places a great importance on the continuity of the relational process. Continuity covers five domains: over time continuity (the chronological domain), geographical continuity (at the one location of the clinic and the practice), interdisciplinary continuity (the primary care team), interpersonal continuity and informational continuity (guaranteeing the availability of medical information).

## 6.2 Assessment methods

Assessing performance elements that every general practitioner/family physician (GP/FP) should master implies the utilisation of different methods applicable in the GP/FM setting. Some – but not all – of the appropriate methods in person centeredness are listed below:

- Patient view (direct questions, questionnaires);
- Simulated patient;
- Direct observation/sitting-in;
- Video/video recorded consultation;
- Consultation maps;
- Consultation rating scales;
- Group discussion;
- Written case report;
- Chronological case progression;
- Essay;
- Reflective diary/portfolio;
- Chart audit.



### 6.3 Documentation tools

Several tools have been developed in order to facilitate the practical assessment of consultations oriented towards person/patient centeredness.

Consultation maps and consultation rating scales<sup>99</sup> are widely used in the practice setting. Score sheets are used in a teaching/learning context. Examples of the above are shown at the end of this chapter.

### 6.4 Abilities

#### ***Ability 1: To adopt a person-centred approach in dealing with patients and problems in the context of patient’s circumstances.***

*Case vignette, step 1.*

*José Silva, male, 48 years old, comes to the GP office because he is worried about the results of a PSA test done within a preventive programme at his workplace. He asks for advice on what should be the next step.*

How do GPs demonstrate this ability?	Features of this ability	Assessment method	Who could assess?
Scientific knowledge	<ul style="list-style-type: none"> <li>• Knowledge of concepts/ foundations of person centred care</li> <li>• Relevant literature</li> </ul>	<ul style="list-style-type: none"> <li>• Essay</li> <li>• Group discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> </ul>
Reference frame	<ul style="list-style-type: none"> <li>• Understanding of cultural and gender differences</li> <li>• Mastering family assessment tools (genograms, family plots, eco-mapping)</li> </ul>	<ul style="list-style-type: none"> <li>• Chart audit</li> <li>• Reflective portfolio</li> <li>• Written case report</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> </ul>
Mastering patient illness and disease concepts	<ul style="list-style-type: none"> <li>• Exploring both disease and illness</li> </ul>	<ul style="list-style-type: none"> <li>• Chart audit</li> <li>• Patient view (direct questions, questionnaires)</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> <li>• Patients</li> </ul>
Self awareness of doctor	<ul style="list-style-type: none"> <li>• Counter-transference</li> <li>• Self-awareness of emotional responses</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• Direct observation/ sitting-in</li> <li>• Group discussion</li> <li>• Reflective diary/portfolio</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> </ul>

Table 11: To adopt a person-centred approach in dealing with patients and problems in the context of patient’s circumstances

Comment – Adopting a person-centred approach allowed the Doctor to deal with the problem as experienced and presented by the Patient.

Doctors “agenda” – mostly concentrate in predictive values of tests and adequacy of preventive interventions – was encompassed with Patient’s worries.

***Ability 2: To apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient’s autonomy.***

*Case vignette, step 2.*

*José Silva is a mathematics teacher in secondary school. He divorced three years ago and remarried one year ago with a 28 years old colleague, now three months pregnant. Until now he has been a rather healthy man, with no chronic diseases and no medication. He never smoked, and is a moderate drinker. He takes regular exercise three times per week, i. e. tennis and cycling. There are no cancer or early cardiovascular diseases in his family history.*

*Physical examination including DRE did not reveal any abnormalities except for slight overweight (BMI 27). Brought in laboratory tests results: blood count, blood glucose, lipidogram, liver function, CRP are normal; PSA 6.0.*

How do GPs demonstrate this ability?	Features of this ability	Assessment method	Who could assess?
Patient centred consultation model	<ul style="list-style-type: none"> <li>Nature, history, aetiology and effects of problems adequately defined</li> <li>Patient's ideas, concerns and expectations adequately explored</li> <li>Patient's context and circumstances taken into account</li> <li>Common ground pursued and found in relation to problems, goals and roles</li> <li>Mutual decision achieved</li> <li>At risk factors considered</li> <li>Relationship with patient enhanced</li> <li>Appropriate use of time and resources</li> </ul>	<ul style="list-style-type: none"> <li>Consultation maps</li> <li>Consultation rating scales</li> <li>Video recorded consultation</li> <li>Chart audit</li> <li>Direct observation/sitting-in</li> </ul>	<ul style="list-style-type: none"> <li>Trainers</li> <li>Peers</li> </ul>
Report findings in a adapted and understandable way	<ul style="list-style-type: none"> <li>Shared understanding of problems achieved</li> </ul>	<ul style="list-style-type: none"> <li>Patient view (direct questions, questionnaires)</li> <li>Direct observation</li> <li>Videos</li> </ul>	<ul style="list-style-type: none"> <li>Patients</li> <li>Trainers</li> </ul>
Take decisions with respect for the autonomy of the patient	<ul style="list-style-type: none"> <li>Appropriate action chosen for each problem</li> <li>Patient involved in management</li> </ul>	<ul style="list-style-type: none"> <li>Video recorded consultation</li> <li>Chart audit</li> <li>Group discussion</li> <li>Patient view (direct questions, questionnaires)</li> </ul>	<ul style="list-style-type: none"> <li>Trainers</li> <li>Peers</li> <li>Team</li> <li>Patients</li> </ul>

Table 12: To apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient's autonomy

Comment – The knowledge of both sensitivity and specificity of PSA measurements, and of the epidemiology and natural course of prostatic cancer were essential to this case. The use of a patient-centred clinical model for the consultation clarified the situation and the context of the patient, leading to the appropriate mutual decision. Preventive issues were balanced and discussed. Laboratory findings were understood and the patient was involved in management.

### **Ability 3: To communicate, set priorities and act in partnership.**

*Case vignette, step 3.*

*José Silva is afraid of prostate cancer and possible death; going deeply into the interview he displays problems of erectile dysfunction since he saw the laboratory results.*

<b>How do GPs demonstrate this ability?</b>	<b>Features of this ability</b>	<b>Assessment method</b>	<b>Who could assess?</b>
Effective exchange of information	<ul style="list-style-type: none"> <li>• Listening to the patient's point of view</li> <li>• Giving information</li> <li>• Checking understanding</li> </ul>	<ul style="list-style-type: none"> <li>• Simulated patient</li> <li>• Video recorded consultation</li> <li>• Direct observation/sitting-in</li> <li>• Patient view (direct questions, questionnaires)</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> <li>• Patients</li> </ul>
Acceptance of patient's points of view	<ul style="list-style-type: none"> <li>• Considering patient's feelings, needs and expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Patient view (direct questions, questionnaires)</li> <li>• Simulated patient</li> <li>• Video recorded consultation</li> <li>• Direct observation/sitting-in</li> </ul>	<ul style="list-style-type: none"> <li>• Patient</li> <li>• Trainers</li> <li>• Peers</li> </ul>
Mutual involvement in health care plan	<ul style="list-style-type: none"> <li>• Involving patient on decision making</li> <li>• Finding common ground on problems and goals</li> </ul>	<ul style="list-style-type: none"> <li>• Written case report</li> <li>• Simulated patient</li> <li>• Video recorded consultation</li> <li>• Direct observation/sitting-in</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> <li>• Patient</li> </ul>

Table 13: To communicate, set priorities and act in partnership

Comment – The effective exchange of information (implying doctor's own emotional responses as well) and the doctor/patient relationship enhancement made possible to bring up the underlying feelings of the Patient, therefore displaying the main problem.

### **Ability 4: To provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management.**

*Case vignette, step 4.*

*José Silva is reassured about his PSA results, after second determination and ultrasound check. No longer fearing cancer, he sees his erectile malfunction problem disappear. Three months later his young wife comes with him to the GP's office.*

*She is six months pregnant now. José Silva is now fully informed about preventive activities and risk groups – namely of quaternary prevention!*

Quaternary prevention: Action or set of actions aiming to identify patients at risk of overmedicalization, protect them from invasive medical procedures and propose ethically acceptable interventions<sup>100</sup>.

How do GPs demonstrate this ability?	Features of this ability	Assessment method	Who could assess?
Personal continuity	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Doctor/patient relationship</li> </ul>	<ul style="list-style-type: none"> <li>• Video recorded consultation</li> <li>• Direct observation/sitting-in</li> <li>• Patient view (direct questions, questionnaires)</li> <li>• Reflective portfolio</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Patients</li> </ul>
Continuity over time	<ul style="list-style-type: none"> <li>• Documentation/files/charts</li> <li>• Follow-up plan</li> </ul>	<ul style="list-style-type: none"> <li>• Written case report</li> <li>• Chronological case progression</li> <li>• Chart review</li> <li>• Video recorded consultation</li> <li>• Direct observation/sitting-in</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> </ul>
Medical information	<ul style="list-style-type: none"> <li>• History taking</li> <li>• Record keeping</li> <li>• Retrieving information</li> </ul>	<ul style="list-style-type: none"> <li>• Chart audit</li> <li>• Group discussion</li> <li>• Video recorded consultation</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> <li>• Team</li> </ul>
Interdisciplinary	<ul style="list-style-type: none"> <li>• Collaboration with team-members</li> <li>• Use of other resources</li> </ul>	<ul style="list-style-type: none"> <li>• Chart audit</li> <li>• Group discussion</li> <li>• Written case report</li> <li>• Chronological case progression</li> </ul>	<ul style="list-style-type: none"> <li>• Trainers</li> <li>• Peers</li> <li>• Team</li> </ul>

Table 14: To provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management

Comment – The fact that the patient could maintain his relationship with his doctor over time was essential to the success. Interdisciplinary collaboration was considered but not needed.

## 6.5 Examples of tools used to facilitate the assessment of consultations

### 6.5.1 Consultation map

Useful tool to monitor the evolution of a patient centred consultation. Each time the doctor or the patient speaks, a mark is placed against the appropriate heading. These marks may then be joined together so that the sequence of events in the consultation is made clear.

a.	Nature and history of problems
b.	Aetiology of problems
c.	Patient's ideas
d.	Patient's concerns
e.	Patient's expectations
f.	Effects of problems
g.	Continuing problems
h.	At risk factors
i.	Action taken
j.	Sharing understanding
k.	Involving in management

### 6.5.2 Consultation rating scale

Evaluates consultations, rating them according to a scale, by placing marks in such a position along each line to show how much the person in charge of the evaluation agrees with each statement.

Nature and history of problems adequately defined						Nature and history of problems defined inadequately
Aetiology of problems adequately defined						Aetiology of problems defined inadequately
Patient's ideas explored adequately and appropriately						Ideas explored inadequately or inappropriately
Patient's concerns explored adequately and appropriately						Concerns explored inadequately or inappropriately
Patient's expectations explored adequately and appropriately						Expectations explored inadequately or inappropriately
Effects of problems explored adequately and appropriately						Effects of problems explored inadequately or inappropriately
Continuing problems considered						Continuing problems not considered
At risk factors considered						At risk factors not considered
Appropriate action chosen for each problem						Inappropriate action chosen
Appropriate shared understanding of problems achieved						Shared understanding not achieved or inappropriate
Patient involved in management adequately and appropriately						Involvement in management inadequate or inappropriate
Appropriate use of time and resources in consultation						Inappropriate use of time and resources in consultation
Use of time and resources in long-term management appropriate						Inappropriate use of time and resources in long-term management
Helpful relationship with patient established or maintained						Unhelpful or deteriorating relationship with patient

### 6.5.3 Score sheets

Although usually used in learning/teaching environment, score sheets as the one presented below can easily be adapted to practice assessment.

<b>SCORE SHEET – CONSULTATION</b> (Swedish specialist exam in Family Medicine, 2006)		
<b>Sitting in</b>	<b>Video</b>	<b>Examiner's notes</b>
Patient: age, sex, description		
Starting time – ending time = time used (minutes)      -      =      min		
<b>A Comprehensive (Global)</b> 1. Themes 2. Patient's agenda 3. Dr's agenda 4. Use of time		
<b>B</b> 1. Opening – rapport		
2. Patient's presentation of symptom/ problem		
3. Patient's own idea/assessment of problem, expectations, concerns		
4. Identify problem, focus.		
5. Physical examination		
6. Use of medical service/ investigations		
7. Relevant preventive aspects		
8. Summarize – assess-test hypothesis		
9. Mutual assessment and plan. Closure.		
Assess according to A and/or according to B. Notes are used to compile the examiner's report.		

A comparable tool has been published in The Netherlands as LACONTO instrument<sup>101</sup>.



## 7 Specific problem solving skills

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**Specific problem solving skills** include the ability:

- To relate specific decision making processes to the prevalence and incidence of illness in the community;
- To selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient;
- To adopt appropriate working principles, e. g. incremental investigation, using time as a tool and to tolerate uncertainty;
- To intervene urgently when necessary;
- To manage conditions which may present early and in an undifferentiated way;
- To make effective and efficient use of diagnostic and therapeutic interventions.

### 7.1 Introduction

Specific problem solving skills in family practice relate to the context in which the problems are encountered, the nature and natural history of the problems themselves, the personal characteristics of the patients presenting with these problems, personal characteristics of the doctors who manage them, and the resources we have at our disposal to manage these problems. Problem solving in general practice is highly context-specific.

The task of problem solving when faced with early undifferentiated illness requires the GP to use a problem-based approach rather than a disease based approach. Several good primary care textbooks are organized along these lines.

Use of time, incremental investigation and coping with uncertainty are part of the attitudinal change that may be necessary for those learning general practice. There is a growing body of literature on these topics to support trainers who encourage learners to reflect on these unique aspects of problem solving.

Both shared management of problems with the patient and the conflict over the fair use of limited resources raise ethical issues connected with problem

solving. The trainer of general practice can focus attention to ethics when appropriate in specific cases or may present case simulations to provoke discussion of these problems and coping strategies.

A large part of specialty training is devoted to problem solving skills. Over a period of several months or years the trainee will develop a unique personal clinical style under the guidance of a tutor. Problem solving is best taught in the clinical setting with actual patients followed over time to assess outcomes.

## **7.2 Assessment methods**

Assessment of the performance of problem solving skills in primary care requires a variety of methods. Direct (sit-in with real patients; video-taped consultation) or indirect (e.g. chart review) observation of practice using checklists and global ratings can be used. The performance of decision making can be assessed by performance review. Patient interviews or questionnaires can be used to assess patient satisfaction with the doctor's attempts to involve them in their care.

## **7.3 Documentation tools**

A list for the observer, not related to specific clinical conditions, but used for overall assessment of problem solving skills:

The assessor should observe and evaluate if the GP being assessed is able to	Never				Most of the time
1. Have in mind the epidemiological situation in society, so that he first considers the most probable reasons for any complaint	0	1	2	3	4
2. Selectively collect appropriate information	0	1	2	3	4
3. Use properly the specific information gathered	0	1	2	3	4
4. Carry out appropriate investigations	0	1	2	3	4
5. Involve patients in decision making, and respect patients' preferences	0	1	2	3	4
6. Take into account psychological, social and family factors	0	1	2	3	4
7. Empower the patient, make him feel well and valued	0	1	2	3	4
8. Make use of previous knowledge of the patient	0	1	2	3	4
9. Be open-minded about that any complaint in some cases may not be what he first assumed	0	1	2	3	4
10. Use time as a diagnostic tool	0	1	2	3	4
11. Act appropriately in case of an emergency	0	1	2	3	4
12. Maintain proper organisation in the practice and proper use of time	0	1	2	3	4

A mix of patients should be observed in order to get a final score on the score sheet above.

These points could be an observational sheet for a peer observer. Few single consultations will involve all these points, but during a day one surely will be able to evaluate all the points.

## 7.4 Abilities

*Case vignette.*

*Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.*

Case vignette.

Susanne Brioche, a 51 years old woman contacts her GP because of epigastric pain and nausea lasting for two weeks. She asks for a referral to a computer tomogram.

Case vignette.

Sara Campos, a previously healthy 33 years old woman expecting her first child shows up for pregnancy control in her 34th week. Her blood pressure has increased to 160/105 mmHg, she has protein ++ in her urine and is feeling generally unwell.

Case vignette.

Natasa Pontosic, a 47 years old woman contacts her GP because of tiredness, pain in her head and stomach and numbness in her legs.

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 1: To relate specific decision making processes to the prevalence and incidence of illness in the community	<i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i>	<ul style="list-style-type: none"> <li>• History taking of symptoms related to the most probable illnesses</li> <li>• History taking to rule out red flag symptoms</li> <li>• Physical examination for the signs of the most probable illnesses</li> <li>• Ordering of just the appropriate test</li> <li>• To make decisions according to the most frequent reasons for the contact: appropriate management plan (including watchful waiting, patient involvement, patient consent, appropriate risk taking)</li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of the first contact of the patient with symptoms: sitting in, video-tape</li> <li>• Chart review</li> <li>• Review of a logbook with defined number of the management of defined cases</li> <li>• For use not only as a normative assessment, but as a formative assessment, with subsequent feed-back to the GP</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
<p>Ability 2: To selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient</p>	<p><i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i></p>	<ul style="list-style-type: none"> <li>• Selectively collecting appropriate information</li> <li>• Not using time on issues not related to the actual situation</li> <li>• Carrying out a focused – not a general – physical examination</li> <li>• Explaining a management plan and making sure the patient understands and feels comfortable with it</li> <li>• Showing good communication skills</li> <li>• Use an appropriate amount of time</li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of the first contact of the patient with any condition: sitting in, videotape</li> <li>• Chart review</li> <li>• Review of referrals</li> <li>• Review of a logbook with defined number of the management of defined cases</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>
<p>Ability 3: To adopt appropriate working principles, e.g. incremental investigation, using time as a tool and to tolerate uncertainty</p>	<p><i>Susanne Brioche, a 51 years old woman contacts her GP because of epigastric pain and nausea lasting for two weeks. She asks for a referral to a computer tomogram.</i></p>	<ul style="list-style-type: none"> <li>• Elaborating a management plan including simple treatment and watchful waiting.</li> <li>• Involving the patient in the diagnostic reasoning and the management plan</li> <li>• Exploring the patient's fear of having a serious condition</li> <li>• Making the patient feel secure that she will be taken care of</li> <li>• Not referring the patient for investigations with no proper indication</li> <li>• Making reappointment for follow-up</li> <li>• Referring for appropriate investigations when a condition shows an unexpected course</li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of first contact of the patient with any condition, especially those involving diffuse and unspecific symptoms</li> <li>• Chart review</li> <li>• Review of a logbook with defined number of the management of defined cases</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 4: To intervene urgently when necessary	<i>Sara Campos, a previously healthy 33 years old woman expecting her first child shows up for pregnancy control in her 34<sup>th</sup> week. Her blood pressure has increased to 160/105 mmHg, she has protein ++ in her urine and is feeling generally unwell.</i>	<ul style="list-style-type: none"> <li>• Focused history taking of symptoms with focus on alarm signs and symptoms – red flags</li> <li>• Physical examination with focus on alarm signs – red flags</li> <li>• Immediate treatment or referral to appropriate level of care</li> <li>• Reassuring but realistic communication with the patient about diagnostic thinking and management plan</li> <li>• Appropriate use of time</li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of first contact of the patient with a probable serious condition requiring urgent action</li> <li>• Chart review</li> <li>• Review of a logbook with defined number of the management of defined cases</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>
Ability 5: To manage conditions which may present early and in an undifferentiated way	<i>Natasa Pontosic, a 47 years old woman contacts her GP because of tiredness, pain in her head and stomach and numbness in her legs.</i>	<ul style="list-style-type: none"> <li>• Adapting attitudes characteristic of a generalist orientation, including curiosity, diligence and caring</li> <li>• Adapting a stepwise procedures in medical decision-making, using time as a diagnostic and therapeutic tool</li> <li>• Understanding the inevitability of uncertainty and apply strategies to tolerate uncertainty. This will require: <ul style="list-style-type: none"> <li>• Making follow-up appointment</li> <li>• Making the patient feel comfortable with the follow-up plan</li> <li>• Involving the patient in your diagnostic thinking</li> <li>• Instructing the patient to make earlier contact in case of worsening</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of first or subsequent contact of the patient with a condition related to ill defined symptoms, which might resolve or which may also turn out to be a serious condition</li> <li>• Review of a logbook with defined number of the management of defined cases</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
<p>Ability 6: To make effective and efficient use of diagnostic and therapeutic interventions</p>	<p><i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i></p>	<ul style="list-style-type: none"> <li>• Behaving according to an understanding of cost-benefit of tests and treatments, and the number needed to treat or harm for specific treatments:</li> <li>• Not ordering expensive test when cheaper ones are available</li> <li>• Not prescribing drugs that are unnecessary costly for the patient or for society</li> </ul>	<ul style="list-style-type: none"> <li>• Direct or indirect observation of consultation with a patient with any acute or chronic condition</li> <li>• Chart review</li> <li>• Review of referrals</li> <li>• Review of lab ordering</li> <li>• Review of drug prescriptions</li> <li>• Review of a logbook with defined number of the management of defined cases</li> </ul>	<ul style="list-style-type: none"> <li>• Peers</li> <li>• Supervisor</li> <li>• Tutor</li> <li>• Trainer</li> </ul>

Table 15: Specific problem solving skills, abilities 1–6





## 8 Comprehensive approach

Owen Clarke, Natasa Pilipovic Broceta, Smiljka Radic,  
Mario R. Sammut, Stefan Wilm

**Comprehensive approach** includes the ability:

- To manage simultaneously multiple complaints and pathologies, both acute and chronic health problems in the individual;
- To promote health and well being by applying health promotion and disease prevention strategies appropriately;
- To manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation.

### 8.1 Introduction

One of the important requirements for family doctors is to be able to address multiple complaints and problems in the patients they care for, and at the same time support the individual strengths and resources to cope with these problems. When patients feel they need medical assistance, they become ill as a person and often cannot differentiate between different possible diseases they may have. The challenge to address all the multiple health issues in an individual is an important one. It requires an important skill of interpreting the issues and prioritising them in consultation with the patient.

The family doctor should aim at an approach to the patient where the main focus would be in promoting their health and global well being, which is often in sharp contrast with the specialist approach in treating as many medical problems as possible. Adequate handling of risk factors by promoting self-care and empowering patients is an important task of the general practitioner. The aim of the family doctor is to minimise the impact of patient's symptoms on his well-being by taking into account his personality, family, daily life and physical and social surroundings. Adoption of an evidence-based approach should provide the patient with currently best-documented treatment, and should provide the doctor with currently best-documented evidence for diagnosis and treatment.

Coordination of care also means that the family physician is adequately skilled not only in managing disease and prevention, but also in caring for the

patient and providing palliative care in the end phases of the patients' lives and providing rehabilitation. The physician must be able to coordinate patient care that is provided by other health care professionals.

## 8.2 Assessment methods

Assessing GP performance requires knowledge of what happens in real everyday practice. Thus, appropriate methods for assessing the comprehensive approach should include:

- Observation by peers: sitting in, video and audio recordings, one-way mirror;
- Audit of medical records;
- Feedback from patients/relatives.

Such assessment may be:

- Cross-sectional (observation of a few patients);
- Longitudinal (several encounters in medical records).

## 8.3 Documentation tools

The methodology makes use of a data collection form, consisting of columns with these headings: patient/consultation number, chronic problem list, problems presented, health promotion, prevention, cure, palliation, rehabilitation, coordination in the team and referral.

Patient/ consultation number	Chronic problem list	Problems presented	Health promotion	Prevention	Cure	Palliation	Rehabilitation	Co-ordination & referral

The form is used to collect data from a series of different patients on the same day in observed consultations, or to summarise information from a series of consultations with the same patient over a period of time. The rows therefore

can represent either consultations with different patients or different consultations with the same patient. The same form can gather either real-time (live) data or historical data from records.

While the form can be used as a form of self-assessment by the GP who completes it, performance assessment requires that a selection of the data (for example, three different cases or consultations) is discussed with the GP in detail by the assessor/s. Such assessors have to be experienced GPs, because a non-GP would not have the competence to assess the comprehensive approach.

The following vignette in three parts illustrates how performance assessment of the three abilities of the comprehensive approach takes place in practice.

## 8.4 Abilities

### *Ability 1: To manage simultaneously acute and chronic health problems in the individual.*

*Case vignette.*

*Amanda Miller is a 73 year old obese woman with polyarthropathy and atrial fibrillation, for which she takes multiple medications. She lives with and looks after her husband who has dementia. Amanda Miller comes to see her GP stating that she has “influenza”.*

Features of this ability	Assessment method	Who could assess?
<ul style="list-style-type: none"> <li>Recognises and tackles acute problem</li> <li>Keeps in mind chronic problems simultaneously</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> </ul>
<ul style="list-style-type: none"> <li>Avoids drug interactions</li> <li>Recognises home situation</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Medical records</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> </ul>
<ul style="list-style-type: none"> <li>Use of medical records</li> </ul>	<ul style="list-style-type: none"> <li>Medical records</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> </ul>
<ul style="list-style-type: none"> <li>Addresses patient concerns, differentiating between wants and needs</li> <li>Agrees with patient on management plan</li> </ul>	<ul style="list-style-type: none"> <li>Feedback</li> </ul>	<ul style="list-style-type: none"> <li>Patient</li> <li>Peer</li> </ul>

Table 16: To manage simultaneously acute and chronic health problems in the individual

***Ability 2: To promote health and well being by applying health promotion and disease prevention strategies appropriately.***

*Case vignette (continued).*

*One month later, Amanda Miller comes to see her GP again, this time regarding her joint pains.*

<b>Features of this ability</b>	<b>Assessment method</b>	<b>Who could assess?</b>
<ul style="list-style-type: none"> <li>Identifies opportunity for health promotion intervention (e.g. using the 5 A's tool)</li> <li>Makes use of structured medical record as reminder of preventive activities</li> <li>Makes use of team-work</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Medical records</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> </ul>
<ul style="list-style-type: none"> <li>Uses communication skills</li> <li>Is aware of any personal prejudices which might influence negatively preventive advice</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> </ul>
<ul style="list-style-type: none"> <li>Makes recommendations which are feasible in the context of patient's lifestyle and home situation</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Medical records</li> <li>Feedback</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> <li>Patient</li> </ul>
<ul style="list-style-type: none"> <li>Acts as suitable role model</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Patient feedback</li> </ul>	<ul style="list-style-type: none"> <li>Peer</li> <li>Patient</li> </ul>

Table 17: To promote health and well being by applying health promotion and disease prevention strategies appropriately

***Ability 3: To manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation.***

*Case vignette (continued).*

*Another two months later, Amanda Miller falls at home and suffers a fractured hip. After surgery, she is sent home from hospital.*

<b>Features of this ability</b>	<b>Assessment method</b>	<b>Who could assess?</b>
<ul style="list-style-type: none"> <li>• Provides appropriate medical management</li> <li>• Involves members of practice team, e.g. through case conference</li> <li>• Performs/arranges home visit (consider relevant team members) – needs assessment, e.g. cause of falls</li> </ul>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Medical records</li> </ul>	<ul style="list-style-type: none"> <li>• Peer</li> </ul>
<ul style="list-style-type: none"> <li>• Involves relatives</li> </ul>	<ul style="list-style-type: none"> <li>• Medical records</li> <li>• Feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Peer</li> <li>• Patient/relatives</li> </ul>
<ul style="list-style-type: none"> <li>• Facilitates communication (two-way) with hospital</li> <li>• Involves external community resources (e.g. home help, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Medical records</li> <li>• Case discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Peer</li> </ul>

Table 18: To manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation



## 9 Community orientation

Dolores Forés, Roger Price, Llukan Rrumbullaku,  
Alma Eir Svavarsdottir, Paula Vainiomäki, Egle Zebiene

**Community orientation** includes the ability:

- To reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources.

### 9.1 Introduction

Family doctors have a responsibility for the community in which they work, which extends beyond the consultation with an individual patient. The work of the family doctor is determined by the makeup of the community and therefore the doctor must understand the potentials and limitations of the community. The family doctor is in a position where he/she can see these issues. In all societies health care systems are being rationed. Doctors are being involved in the rationing decisions, and have an ethical and moral responsibility to influence health policy in the community.

### 9.2 Assessment methods

- Records review to review achievement against target;
- Records review to assess procedures to address needs of the absent residents;
- Case report, case description;
- Observation of doctor and team in action.

Who could assess?

- Self assessment, internal audit;
- External audit – review of process through peer appraisal.

### 9.3 Documentation tools

- Check lists;
- Observation lists;
- Consultation maps.

## 9.4 Ability

**Ability:** *To reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources.*

*Case vignette.*

*The primary health care team arrives at the nursing home of 42 residents to perform flu vaccinations. Three residents are in outpatient clinic and want the immunization; others get the vaccination, except two residents who do not like vaccination as they are afraid of needles. The GP demonstrates her community orientation by assessing the needs of the small nursing home community as compared to the needs of these two residents, including their health needs, but also their personal preferences. The decision of the doctor should be aimed at persuading those two persons to agree with the vaccination, as it affects not only them, but also increases the risk of disease and also complications for other residents, who may be severely ill. This aim should be balanced with respecting the two patients' individual autonomy. The plan of the team is to return the next day for vaccination of the missing three residents.*

How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
All residents in a nursing home should get annual flu vaccination unless contraindicated by EbM	<ul style="list-style-type: none"> <li>• Organization</li> <li>• Administration</li> <li>• Collaboration with nursing home health care providers</li> <li>• Record keeping</li> <li>• Goal: to immunize 100% of eligible nursing home inhabitants</li> </ul>	<ul style="list-style-type: none"> <li>• Record review</li> <li>• System review</li> <li>• Case report</li> <li>• Case description</li> <li>• Observation of doctor in action</li> </ul>	<ul style="list-style-type: none"> <li>• Self-assessment</li> <li>• Internal audit</li> <li>• External audit</li> </ul>

Table 19: To reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources



## 10 Holistic approach

Francesco Carelli, Georgi Ivanov, Bernhard Rindlisbacher,  
George Spatharakis, Wolfgang Spiegel

**Holistic modelling** includes the ability:

- To use a bio-psycho-social model taking into account cultural and existential dimensions.

### 10.1 Introduction

Holistic care is understood as an approach to patient care in which all the patient's physical, mental and social factors are always taken into account, rather than just the diagnosed disease with or without psychosocial factors that influence the disease or the result.

Procedure for holistic care:

1. To obtain information about the *whole* of the patient (all aspects of the person, his well-being, social and professional integration, his hopes, aspirations and fears and all the biological, psychological and social aspects of his existence) and his interrelations to the rest of the world/the system. These pieces of information are like pieces in a puzzle without borders and never complete.
2. Synthesize all the collected information (the pieces of the puzzle) and arrive at a comprehension of how all aspects interact with the patient's well-being, social and professional integration, aspirations and fears.
3. To produce and offer an individualized management plan to the patient and family concerning all three levels, comprising not only therapeutic recommendations, but also counselling, integrated care and interventions with alternative input/choices.

Medicine is an intrinsic part of the wider culture. It is based on a set of shared beliefs and values, as with any cultural practice. The definition of holistic approach that is widely accepted for medical care, and will be used in this document, implies

caring for the whole person in the context of the person's values, his family beliefs, the family system, and the culture and the socio-ecological situation in the

larger community, and considering a range of therapies based on the evidence of their benefits and cost.

Holism, as Pietroni states, involves a

willingness to use a wide range of interventions... an emphasis on a more participatory relationship between doctor and patient; and an awareness of the impact of the “health” of the practitioner on the patient.

This individual focus makes it relate closely to family medicine. The holistic view acknowledges objective scientific explanations of physiology, but also admits that people have inner experiences that are subjective, mystical and (for some) religious, which may affect their health and health beliefs.

The recognition that all illnesses have both mental and physical components and that there is a dynamic relationship between components of systems (general systems theory) led to the development of the bio-psycho-social model of modern medicine. The position of the biopscho-social model was spelled out most clearly by George L. Engel who argued that for psychiatry to generate a fully scientific and inclusive account of mental disorder, bio-reductionist accounts should be superseded by ones which adhere to the insights of the general systems theory, developed by Ludwig von Bertalanffy and Paul Weiss. The bio-psycho-social model was proclaimed as a paradigm shift because it apparently dissolved the mind-body split.

Understanding the illness (not disease) as a process, which gives equal importance to biological, psychological and social determinants for pathogenesis, diagnosis and therapy, forms the holistic approach with its consequent implementation to practical measures.

Using a bio-psycho-social model as the basis for cure and care implies an acceptance that many factors influence our understanding of what it is to be human. Family doctors accept a diversity of factors to be of relevance. Examples of factors may be:

- The natural disposition, including elements of gender, genetic constitution and typology;
- The micro-social environment such as the family and the macro-social environment, including the local community and the wider community with all its cultural and socio-ecological elements;
- The health beliefs and life experiences that make a person the entity that he/she is now;

- Health-maintaining resources in a person, like the understanding of events, the acceptance of meaning, the autonomy that leads to the conviction that life is manageable;
- Personal experiences including past illnesses, medical and social contacts.

As the list of factors grows, it is also important to stress that a basic awareness and understanding of one's own limitations as a doctor are crucial. Keeping in mind the fundamental autonomy of the patient, there is a limited opportunity for the family doctor to intervene occasionally and rather “tangentially”, with an interesting but very scarce knowledge about the person's history, feelings and priorities. At the same time, the integration of influencing factors is crucial and constitutes the added value. This refers to system approach, where the whole is considered more than the sum of the parts<sup>102,103</sup>.

## 10.2 Assessment methods

The information that gives an idea of how a GP really works as it concerns the holistic approach, could be received by two kinds of methods: direct and indirect.

### 10.2.1 *Direct*

- Sitting in with GP
  - Criteria used:
    - Facilitation of patients and giving time and interest to express personal problems;
    - Attitude versus time/ability to find time to show the attitude;
    - Portfolio of the patient (“pointed” image of the patient like in puzzles);
    - Michael Balint's<sup>104</sup> approach use: What is the presenting symptom, ability/failure to find what is behind it?
- Videotaped consultation analysis;
- Simulated consultation;
- Interviews with
  - Patients;
  - Members of the family;
  - Doctors;
  - Caregivers (formal and informal);
  - Other medical staff in the practice;

- Other non-medical staff in the practice;
- Others (patients' friends, other involved persons, etc.);
- Interviews with peers or specialized professionals.

### **10.2.2 Indirect**

Medical records consultation for search of information concerning the three fields/levels. These, besides clinical assessment, should include:

1. Psychological assessment (symptoms, problems, presence of anxiety, depression, etc.)
2. Social assessment
  - Information about family composition and living conditions;
  - Satisfaction with personal/family life;
  - Knowledge about family ties and relationships;
  - Family tree knowledge;
  - Individual and family financial situation;
  - Profession and information on professional life;
  - Satisfaction at work;
  - Level of education;
  - Religion and beliefs;
  - Spiritual life/needs;
  - Social class and life.

A holistic method to assess the ability of the doctor to use an holistic approach might be to let the doctor role-play the patient with his problems and have him draw a picture of the patient.

## **10.3 Documentation tools**

A broad range of documentation tools may be used to document the results of the above assessment methods, including check lists, scoring tools, interview protocols, observation lists and consultation maps.

## 10.4 Ability

***Ability: To use a bio-psycho-social model taking into account cultural and existential dimensions.***

*Case vignette.*

*The family GP responds to a house call to see and assess Victor Lazlos, a known terminal cancer patient of 78 years of age who feels very tired and exhausted these last days, and has lost his abilities to conduct the activities of daily living. The patient lives in-doors for some months now and has no social contacts, while the family assumes full responsibility of the care. History taking, clinical examination and biology reveal no major disturbances, the disease passing through a phase of relative stability. Victor Lazlos has a depressive expression, and the discussion as well as the use of the GDS-30 scale confirms the diagnosis of a severe depression.*

*During the visit the patient's daughter has to leave to go shopping and asks the grandson to take care of his grandfather while she will be absent. This is done in front of the patient who feels hurt and useless, a burden to the family. Further discussion reveals that Victor Lazlos is a strong religious believer.*

How do GPs demonstrate this ability?	Features of this ability	Assessment method	Who could assess?
<p>The personalized and holistic plan that is produced in agreement with the patient and his family:</p> <ol style="list-style-type: none"> <li>1) Regular doctor visits and biological control</li> <li>2) Local home aid group visits three times a week for adequate follow-up and help to basic daily activities (bathing, etc.)</li> <li>3) Treatment for depression</li> <li>4) Counselling of the family to role-play as if they asked the help of the grandfather to look upon the grandson while the daughter is absent, and not the opposite (this will value the patient and make him feel useful and will give a meaning to his life)</li> <li>5) Organize the house visit of a priest – monk, who is known and well respected by the patient</li> <li>6) Organize escapes from the house environment as soon the condition of the patient permits it</li> <li>7) Mobilize volunteers to visit and socialize with the patient and to escort him when later going out of the house</li> </ol>	<p>Some global (indirect) criteria such as:</p> <ul style="list-style-type: none"> <li>• Patient's satisfaction</li> <li>• Family's satisfaction</li> <li>• Doctor's satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• Sitting in with GP</li> <li>• Videotaped consultation analysis</li> <li>• Simulated consultation</li> <li>• Interviews with: patients, family, other doctors, caregivers (formal and informal), other medical staff in the practice, other non-medical staff in the practice, others (e.g. patients' friends)</li> <li>• Interviews with peers or specialized professionals</li> </ul>	<p><i>Internal</i></p> <ul style="list-style-type: none"> <li>• Self-assessment</li> <li>• Work colleagues</li> </ul> <p><i>External</i></p> <p>Special audit from:</p> <ul style="list-style-type: none"> <li>• Peers</li> <li>• Quality assurance groups:</li> </ul> <ol style="list-style-type: none"> <li>1) Associations of GPs</li> <li>2) Delegates of insurance companies</li> <li>3) State institutes</li> </ol>
	<p>Information in medical charts on all three levels: for example checklists for:</p> <ol style="list-style-type: none"> <li>i. Spiritual needs</li> <li>ii. Financial situation</li> <li>iii. Sexual life</li> <li>iv. Satisfaction at work</li> <li>v. Satisfaction with personal/family life</li> </ol>	<p>Medical records' consultation for search of information</p>	
	<p>Decision making and decision sharing approach (creation with patient and family of a management plan) – readiness of the patients to open up and trust the doctor to his questioning and suggestions</p>	<ul style="list-style-type: none"> <li>• Sitting in with GP</li> <li>• Videotaped consultation analysis</li> <li>• Simulated consultation</li> <li>• Interviews with: patients, family, other doctors, caregivers (formal and informal), other medical staff in the practice, other non-medical staff in the practice, others (e.g. patients' friends)</li> <li>• Interviews with peers or specialized professionals</li> </ul>	
	<p>Looking after all the members of the family and take in account their suggestions (if possible by social conditions)</p>	<ul style="list-style-type: none"> <li>• Sitting in with GP</li> <li>• Videotaped consultation analysis</li> <li>• Interviews with: family, other doctors, caregivers (formal and informal), other medical staff in the practice, other non-medical staff in the practice</li> </ul>	
	<p>Family calls the GP for matters not only related to biological health, but also for psycho-social problems – the patient shares completely his/her thoughts with the doctor and capacity to evoke changes</p>	<ul style="list-style-type: none"> <li>• Medical records' consultation for search of information</li> <li>• Interviews with: patients, family, other doctors, caregivers (formal and informal), other medical staff in the practice, other non-medical staff in the practice</li> </ul>	
	<p>Rate of referral of the patients and families to the local social services (this is close to the notions of chapters 4 and 5 of the Educational Agenda)</p>	<ul style="list-style-type: none"> <li>• Medical records' consultation for search of information</li> <li>• Interviews with specialized professionals</li> </ul>	
	<p>Openness, acceptance, empathy</p>	<ul style="list-style-type: none"> <li>• Role playing</li> <li>• Sitting in with GP</li> <li>• Videotaped consultation analysis</li> </ul>	

Table 20: To use a bio-psycho-social model taking into account cultural and existential dimensions

## 11 Glossary of terms and key assessment methods

In the present EURACT Performance Agenda, a lot of educational terms are used. In the addendum readers can find a short glossary on some of these educational terms, predominantly taken from the EURACT Educational Agenda. Description of types of assessment is partially based on Newble and Cannon<sup>105</sup>. Key assessment methods presented in the Agenda are described in the last paragraph (terminology on assessment tools and methods). Arrows (→) refer to other terms in the glossary.

### 11.1 More general terminology

#### **Basic medical education, BME**

The part of the medical →**curriculum** that relates to all medical students, to give a sound basis for further →**vocational or specialty training**. The European Union claims a minimum of six years of BME.

#### **Bachelor degree**

Following the Bologna Declaration 1999 to create a “European Higher Education Area” by 2010, the first basic part in each →**curriculum** should preferably have 3 years and 180 study points.

#### **Continuing medical education, CME**

Any and all ways by which a graduated physician continues to learn and change in practice in a lifelong learning scheme.

#### **Continuing professional development, CPD**

A process of planned and individually tailored learning in practice with a focus on the quality of care. CPD includes the identification of learning needs, construction of a learning agenda, drawing a concrete learning plan, and controlling this in an educational →**portfolio** format. As it relates to lifelong learning, it can become a lifelong Personal Development Plan<sup>106</sup>.

#### **Convergence**

Voluntary adoption of suitable policies for the achievement of a common goal.

#### **Credit**

The “currency” used to measure students’ →**workload** in terms of the notional learning time required to achieve specified →**learning outcomes**.

### **Credit framework**

A system that facilitates the measurement and comparison of →**learning outcomes** achieved in the context of different qualifications, programmes of study and learning environments.

### **Credit level**

An indicator of the relative demand of learning and of →**learner** autonomy. It can be based on the year of study and/or on course content (e. g. Basic, Intermediate, Advanced, and Specialized).

### **Credit type**

An indicator of the status of course units in the programme of study. It can be described as Core (major course unit), Related (unit providing instruments/support) and Minor (optional course unit).

### **Curriculum**

In formal education, a curriculum is the planned interaction of →**learners** with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives. The general practice curriculum in →**vocational** training defines the learning outcomes for the specialty of general practice and delivers a full description of the →**knowledge**, skills, attitudes and behaviours required of a GP in managing patients and their problems.

### **Doctorate or Doctoral degree**

A high level qualification which is internationally recognized as qualifying someone for research or academic work. It will include a substantial amount of original research work which is presented in a thesis. It is generally referred to as the degree awarded after completion of third cycle studies.

### **ECTS (European Credit Transfer System)**

A system for increasing the transparency of educational systems and facilitating the mobility of students across Europe through →**credit** transfer. It is based on the general assumption that the global →**workload** of an academic year of study is equal to 60 credits. The 60 credits are then allocated to course units to describe the proportion of the learners' workload required to achieve the related →**learning outcomes**. Credit transfer is guaranteed by explicit agreements between the home institution, the host institution and the mobile →**learner**.



### **First degree qualification**

First higher education qualification taken by the →**learner**. It is awarded after successful completion of first cycle studies which, according to the Bologna Declaration should normally last a minimum of three years or 180 →**ECTS credits**.

### **(Initial) Master degree**

Following the Bologna Declaration 1999 to create a “European Higher Education Area” by 2010, after obtaining first a bachelor degree, a second part in the →**curriculum** leads to a master degree. It should have a minimum of 2 years and 120 →**ECTS-study points**. For medical master studies, a clinical period of 3 to 4 years is accepted in many European countries. Obtaining a master degree normally includes some form of master thesis.

### **Master after Master or postinitial Master degree**

Following the Bologna Declaration 1999 to create a “European Higher Education Area” by 2010, after obtaining an →**initial master**, programmes can give entrance to a postinitial master programme. In this logic, →**specialty training** should be considered a postinitial master programme.

### **Specialty training**

→**vocational training**

### **Tuning**

Developing agreement and harmony by combining single sound into a common “tune” or pattern of sounds. It is used in the “tuning project” to achieve a form of harmonization by finding points of →**convergence** and common understanding.

### **Vocational training, VT, syn. specialty training, ST**

The part of the medical →**curriculum** that comes after the common →**basic medical education** programme for all medical students, and focuses on the acquisition of the →**competences**, required for the specialty discipline and related tasks in healthcare.

## **11.2 Terminology on educational content**

### **Attachment**

A period of longer attachment in a practice setting, also called “preceptorship” or “clerkship”.

## Competence

The capability to successfully perform discrete observational tasks in a defined →**assessment** environment, in isolation from actual work. In the Miller terminology, it includes the level of “knowing” (basic facts), “knowing how” (able to apply knowledge) and “showing how” (able to apply →**knowledge**) but it excludes the “doing” level, the →**performance** in practice.

## Elective course

A →**course** to be chosen from a predetermined list.

## Knowledge

Facts, information, and skills acquired through experience or education by perceiving, discovering, or learning; the theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic. Knowledge acquisition involves complex cognitive processes: perception, communication, association and reasoning.

## Learners

Refers to students in →**basic medical education (BME)** as well as →**vocational trainees (VT)** or practicing doctors in →**continuing medical education (CME)** or their →**continuing professional development (CPD)** and to all those who take part in the training programmes.

## Learning outcomes

Statements on what a →**learner** is expected to know, understand and/or be able to demonstrate after completion of a process of learning. Learning outcomes are distinct from the aims of learning, in that they are concerned with the achievements of the learner rather than the overall intentions of the →**teacher**. Learning outcomes must be accompanied by appropriate →**assessment criteria** which can be used to judge that the expected learning outcomes have been achieved. Learning outcomes together with assessment criteria specify the minimum requirements for the award of →**credit**, while marking is based on attainment above or below the minimum requirements for the award of credit.

## Mark

Any numerical or qualitative scale used to describe the results of →**assessment** in an individual →**course** unit or module.

## **Mentor**

→**tutor**

## **Objectivistic learning**

Traditional education model, based on →**knowledge** transfer from →**teacher** to →**learner**. It is highly teacher centred. Content is structured in handbooks, teaching is mainly focused on lecturing by experienced teachers, and behaviour copied from experienced role models.

## **Performance**

The level of actual performance in clinical care and communication with patients in daily practice. It relates in the Miller terminology to the “doing” level. It is considered highly dependent on existing healthcare conditions and requirements, financial and structural opportunities, practice opportunities and support.

## **Problem based learning**

Educational model that takes the problem of the patient and the doctor as the starting point for the learning →**curriculum**. It is highly →**learner** centred, optimizes the use of pre-existing →**knowledge**, and stimulates self learning and search strategies.

## **Social constructivistic learning**

Educational model that puts the learning process of the student as the central point. Learning is seen as a process, highly dependent on pre-existing →**knowledge** and on learning context. →**Teachers** are mainly architects of the stimulating learning environment for the →**learners**. Individual variety in learning strategies are stimulated.

## **Teacher**

Refers to all professionals involved in an educational event as experts.

## **Tutor, syn. mentor, facilitator**

A professional involved in the educational process as leader of the process, to guide and reflect to the benefit of the →**learner(s)**.

## **Workload**

All learning activities required for the achievement of the →**learning outcomes** (i. e. →**lectures**, practical work, information retrieval, private study, etc.).

## 11.3 Terminology on learning methods

### **Clinical work/clinical practice under supervision**

Teaching during working in clinical environment, in general practice/family practice/primary care setting. It can be organised with or without →**supervision**.

### **Courses**

Structured programme of educational content, often presented in an oral format, supported by course material.

### **Discussion**

Discussion session on a specific topic or case presentation. Can be organised as a one to one session with →**tutor** or →**supervisor**, a peer group session, a small group session like a focus group or a Balint group, or it can be a large/temporary group session at →**seminars**, →**lectures** or →**workshops**.

### **Interactive (IT based) learning**

Combination of modular →**reflection** packages, linking case studies, focused reflection, →**discussion** forums, library search and/or reflection in one educational process.

### **Lecture**

Provision of teaching content by presentation and explanation (possibly including a demonstration) by a lecturer.

### **Literature search**

Learning to perform a medical database search in EbM, including defining a clinical question, looking for medical evidence, critical →**reflection** on evidence and implementation in practice.

### **Observation**

Learning through reflective observation by a →**tutor**/→**supervisor** in different educational settings: sit-in with real patients or →**simulated patients**; learning through video-taped consultation of real patient or simulated patient (observation by oneself, tutor/supervisor, peers, etc).

### **Reading/studying**

Reading books, protocols, EbM information, novels, narratives, internet etc.

**Reflection**

On self, e. g. by using a diary, videos, or in a participative reflection group.

**Role playing**

Using the act of playing a role as a patient, as an accompanying person, as a doctor, as a nurse etc to derived educational insight in feelings, intentions and actions.

**Project work**

Working out a personal project or as part of a group in a defined format: →**audit** project, research project, field work project etc.

**Seminar**

A period of instruction based on written or oral contributions by the →**learners**, usually in small groups.

**Skills training**

Learning procedural skills in adapted specific settings like: doing procedures e. g. in a skills lab, learning consultation skills by e. g. →**role playing**, learning (medical) database searching, learning leadership skills by running an educational or targeted meeting etc.

**Study visit**

Educational visit to a practice, to clinical premises, to social-welfare institutions, to health authorities etc.

**Supervision/supervisor**

Supervision involves regular, ongoing structured meetings/sessions with and →**feedback** from personal →**tutor**/supervisor on various topics.

**Writing of patient studies, case studies**

Educational activity, with a given task to provide a written description and/or →**reflection** document, to get →**feedback** from a →**tutor**/→**supervisor**.

**Workshop**

A supervised session where →**learners** work on individual tasks and receive assistance and direction when needed.

## 11.4 Terminology on assessment tools and methods

### Appraisal

A structured process of facilitated self →**reflection**<sup>107</sup> and a means of aiding GP personal development. Key roles may include annual exploration of role expectations; a review of progress towards previously agreed objectives; a recognition of achievements; and an identification of personal development needs<sup>108</sup>.

### Assessment

The total range of written, oral and practical tests, as well as projects and →**portfolios**, used to decide on the learner's progress in the →**course** unit or in a module. These measures may be mainly used by the →**learner** to assess his/her own progress (formative assessment) or by the →**teacher** responsible to judge whether the course unit or module has been completed satisfactorily against the →**learning outcomes** of the unit or module (summative assessment).

### Assessment criteria

Descriptions of what the →**learner** is expected to do, in order to demonstrate that a →**learning outcome** has been achieved.

### Audit

A planned and documented activity performed by qualified personnel to determine by investigation, examination, or evaluation of objective evidence, the adequacy and compliance with established procedures, or applicable documents, and the effectiveness of implementation. Audit in healthcare is a process used by health professionals to assess, evaluate and improve care of patients in a systematic way, from simple data collection e.g. in medical records to the more complex sequence of steps entailed in completing the full-cycle (initial audit, change implemented, re-audit to demonstrate improvement). Audit measures current practice against defined (desired) standard and explicit criteria. It forms part of clinical governance, which aims to safeguard a high quality of clinical care for patients. The key component of clinical audit is that →**performance** is reviewed (or audited) to ensure that what should be done is being done, and if not it provides a framework to enable improvements to be made.

### Blueprint

Bringing the relative importance of different clinical areas, covered in an →**assessment** procedure in accordance with the large variety of cases and problems

and their prevalence in real practice. In the broad range of GP problems, blueprinting is important, because of the problem of →**case specificity**.

### **Case based discussion (CBD)**

Structured oral interview across a range of competency areas; the starting point is the written record of cases selected by the trainee<sup>109</sup>.

### **Case specificity**

Research has shown that learning in medicine is very much case-specific. Mastering a limited set of cases and/or problems does not guarantee the mastering of other cases, areas and problems, especially in a large field like GP/FM. So →**assessment** based on the handling of one or a few cases only gives a very restricted information on the →**competence** of a candidate. Assessment with 10 small tasks of five minutes selected with a good →**blueprint** generally gives much more valid information than one long case of 50 minutes.

### **Checklist**

A list of →**competencies** to be mastered at the end of a training period, formatted as a clear defined list, checkable by the →**learner**, by the →**teacher** or by both, providing a constant overview of what is already mastered and what is still to be learned.

### **Consultation observation tools (COT)**

Tools to assess consultation skills, can be used to assess video recorded consultations or during direct observation in general practice settings<sup>110</sup>.

### **Essay method**

Written →**reflection** on specific questions, in the extended response kind (describe what should be done for...) or the restricted response kind (given this statement, describe this specific issue). Problem is the time needed and the low →**reliability**.

### **Feedback**

e. g. by patients, relatives of patients, or staff. There is now convincing evidence that systematic feedback delivered by a credible source can change clinical →**performance**, although there are many complexities that influence the effectiveness of feedback in practice<sup>111,112,113</sup> (→**multi-source feedback**).

### **MCQ-MEQ method**

Multiple Choice Questionnaire: a format of objective measurement of the →**knowledge** of the →**learner**. Later adapted to other formats: Modified Essay Questionnaire, the Extended Matching type, etc. MEQ includes clinical reasoning, not only knowledge testing.

### **Multi-source feedback**

A unique form of →**workplace-based assessment** in that it uses a collection of untrained raters, and the →**feedback** based on the collated ratings is subsequently fed back to the trainee or doctor by the →**supervisor** or peer. Thus it has aspects of →**assessment** of and for learning.

### **Objective test method**

Includes a wide variety of test formats, in which the marking or the answer is objective: true/false questions; →**Multiple Choice Questions**; context-dependent questions, where a degree of analysis is needed to find the answers; extended matching questions, i.e. more complex combination of themes, scenarios, wide range of possible options, sometimes in relation to specific conditions.

### **Observation method, direct**

Direct →**observation** of →**performance** on technical or interpersonal skills in the real, simulated or examination setting: sit-in with real patient in clinical practice or →**simulated patients** (SOO, simulated office oral); video-taped consultation with real patients in clinical practice or simulated patients with standardised assessment<sup>114</sup>. Observation by oneself, →**tutor**/→**supervisor**, peers, etc. →**Valid** method, but →**reliability** is low. It can be made more objective by the use of →**checklists**, rating forms, and training the examiners.

### **Observation method, indirect**

Simulates direct observation e.g. by using patient records (chart →**audit**), medical certificates, progress reports or by using patient-case discussion.

### **On-site peer assessment**

→**workplace-based assessment**, →**peer (group) assessment**

### **Oral method**

Traditionally the most used method, with a high face →**validity**, but very time consuming and unreliable. Remedies are standardisation of the content (by clear



definition, by selection of a standard set, by using →**standardised patients** etc), or reducing examiners inconsistency (rating sheets, multiplying examiners with independent marking).

### **OSCE method**

Objective Structured Clinical Examination: a format of objective evaluation, focused on (complex) skills testing through lists of wanted and unwanted features in relation to the skill.

### **Patient satisfaction questionnaire**

Provides patient →**feedback** on doctors' empathy and relationship-building skills during consultations<sup>115</sup>.

### **Peer (group) assessment**

→**Assessment** is done by peers and not by →**tutors**/→**supervisors**. Different formats can be used. One specific is the 360 degree assessment format, where at least 10 colleagues, health personnel and staff contribute to the assessment.

### **Portfolio, educational or reflective**

A portfolio is a summary of the major teaching activities and accomplishments, in relation with a Curriculum Vitae, including products and publications. It becomes a reflective or educational portfolio by adding a reflective part, where the →**learner** reflects on the personal learning process<sup>116</sup>. It can be used in a printed or in an electronic version.

### **Reliability**

Refers to the reproducibility of the scores on the →**assessment**; high score reliability indicates that if the test were to be repeated over time, examinees would receive about the same scores on retesting as they received the first time. Unless assessment scores are reliable and reproducible (as in an experiment) it is nearly impossible to interpret the meaning of those scores – thus, →**validity** evidence is lacking.

### **Review**

e. g. of medical records (→**audit**)

### **Review of patient records (RPR)**

Review of the collection of documents that provides an account of each episode in which a patient visited or sought treatment and received care or a referral for care from a health care facility.

### **Self assessment method**

Evaluation method to help learner's understanding of own ability and →**performance**. Criteria and standards are defined in a series of small group meetings by staff and →**learners**. Then learners use the criteria to judge their own performance.

### **Short answer method**

Judging by asking specific short answers on given clinical vignettes: what is the diagnosis, list two typical symptoms, etc.

### **Simulated patient**

Simulated patient (SP), or standardized patient (SP) (also known as a patient instructor) in health care is a healthy subject, or an actual patient who has been trained to portray accurately and consistently a particular patient case in order to simulate a set of symptoms or problems, and who is also trained to assess the →**performance** of students, trainees or doctors based on pre-defined criteria<sup>117</sup>.

### **Structured written answer method**

After a given variable amount of patient data follows a series of options, between which the learner has to select the requested answer. Two types: the Patient Management Problem and the →**Modified Essay Questionnaire** on a broader field of possible options.

### **Validity**

Refers to the evidence presented to support or refute the meaning or interpretation assigned to →**assessment** results. All assessments require validity evidence and nearly all topics in assessment involve validity in some way. Validity is the sine qua non of assessment, as without evidence of validity, assessments in medical education have little or no intrinsic meaning.

### **Video observation**

→**observation method, direct**

### **Workplace-based assessment (WPBA)**

WPBA is the →**assessment** of →**competence** and →**performance** based on what a trainee or doctor actually does in the workplace. The main aim of WPBA is to aid learning and reflecting (assessment for learning) by providing trainees and doctors with constructive →**feedback** and to support development. Train-

ees and doctors can use the same methodology to assess themselves (reflective practice). The assessments help the →**supervisors**, →**tutors** and peers to chart a trainee's progress during a placement or a doctor's performance in daily practice. One major advantage of workplace-based assessment is its ability to evaluate performance in context<sup>118,119,120,121,122,123,124,125,126</sup> (→**on-site peer assessment**). Saturation can be sought by applying a variety of assessment methods, by 360 degree assessment (→**peer (group) assessment**) and/or by longitudinal assessment (→**multi-source feedback**).



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