Quality Management in Primary Care

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Theory:
Evaluation and Assessment of Primary Care

Quality Assessment and Improvement in Primary Care

Richard Grol, Martin Marshall, Stephen Campbell

Introduction

This book presents the development and validation of a set of indicators for the assessment and improvement of primary care management (the EPA project). Assessment is now widely seen as a crucial step in the improvement of the quality of care for patients. Developing quality indicators is one crucial step in undertaking such an assessment. In order to position the role and development of indicators within a comprehensive approach to quality improvement, we start this book with a brief overview of current thinking about quality assessment and improvement. We also will outline some of the challenges and dilemmas encountered when planning the assessment of care provision.

The importance of systematic quality improvement

Receiving high-quality care is a fundamental right of every individual. This includes good access to health care facilities, effective care according to the latest evidence, efficient, well-organized and safe care processes, and, most of all, care directed to the needs of patients whatever their demographic background. In a changing Europe with more mobility of patients and professionals, it is particularly important that a high level of quality of health care be guaranteed regardless of the country where it is administered.

For a long time, professional training of people working in health care was thought to sufficiently guarantee high-quality care. In the last few decades, research has shown that this is not enough and that many patients do not receive the care they should, or that they are ex-

posed to inefficient, unnecessary or even harmful care, or to care that does not put patients and their needs first (Bodenheimer 1999).

Sporadic, ad hoc activities to improve the quality of health care, such as professionals attending courses or occasional audits, are not effective in assuring optimal patient care. Systematic and continuous approaches to improving and maintaining the quality of care are required. This is as true of Primary Health Care (PHC) as it is of the hospital sector. Policies and structures have to be created that support such systematic and continuous quality improvement at all levels of the health care system (Council of Europe 2000).

We define a quality improvement system as "a set of integrated and planned activities and measures at various levels in the health care organization, aimed at continuously assuring and improving the quality of patient care" (Council of Europe 2000). It involves the specification of desired performance, the review of actual performance, the implementation of changes in care if necessary, followed by further review to check the impact of the changes. This process is frequently depicted as a cycle with the following steps (Baker 2004):

- Selecting topics: identification and selection of areas in need of improvement
- Specifying desired performance: selecting guidelines, best practices or targets for optimal patient care
- Assessing care: developing indicators, review criteria and standards, and arranging data collection to assess the actual quality of care
- Changing performance: developing and carrying out a change plan related to the gaps in performance found and linked to the identified obstacles to change
- Evaluating the results: continuous monitoring of performance

Quality improvement should be set up as such a cyclic process of continuous assessment and improvement, focusing each time on new topics. Aspects of patient outcomes (health status, quality of life, patient experience), process of care (e.g., clinical performance, patient education) as well as the structure of care provision (e.g., the organization of services, access, safety procedures, staff development, equipment) should be reviewed and changed if required.

Who is responsible for quality improvement?

Different stakeholders have different responsibilities in creating such quality improvement systems. Governments and policy makers need to provide a framework of laws and regulations as well as support structures (committees, facilitators). Those who finance the service need to arrange for the necessary resources to make quality improvement possible. Managers and practice leaders need to make a commitment to leadership, set up data collection, provide education on quality improvement for staff and provide resources for concrete quality improvement activities and projects. Professional bodies also need to provide leadership and support for their members.

Researchers have to develop valid and reliable indicators, guidelines and tools for quality improvement and should evaluate the impact of the change initiatives. Practices and individual care providers are responsible for setting up quality improvement systems at their work place that include the gathering of data, setting targets for improvement and acting aimed at changing care for the better.

Last but not least, patients are becoming key players, too. The influence that they wield in asserting their rights and assuming their responsibilities has become increasingly important as a catalyst for change. A high-quality health system will only be achieved if patients are allowed and encouraged to influence the process of change.

Building systematic quality improvement is not an easy task. It demands a longstanding commitment from all those involved. We have, however, seen considerable progress in this field in most European countries. There are many important catalysts for this change, including the commitment of the people working on the ground, the leadership provided by some governments and professional bodies and the support provided by the European Union and other organizations such as the Bertelsmann Stiftung.

Example: A system for quality improvement for general practice in the Netherlands

The Dutch law on quality improvement states that all institutions and providers should develop their own systems for defining appropriate care (guidelines, indicators and benchmarks), assessing actual care delivery, improving care when

needed, seeking patient opinion about care provision and reporting on quality improvement activities and results. The professional organizations for general practitioners in the Netherlands have jointly developed a systematic approach to quality improvement. Clinical guidelines were the first step: Over 80 of these have been developed for the most important health problems presented in primary care. To support the use of these guidelines in practice, various tools have been devised, such as educational programs and packages, computerized decision support, patient leaflets describing key issues from the guidelines and checklists for staff and receptionists to be used in telephone contacts with patients. These tools are well accepted and widely used now in practices.
In addition, a set of over 100 clinical indicators for assessing clinical performance has been developed and tested rigorously. Data from 200 general practitioners showed that performance was largely in line with guideline recommendations (on average in 74 percent of the decisions). The next step will be to assist practices in continuously monitoring these indicators and presenting the data to external parties and stakeholders.
In 2000, the Dutch College of General Practitioners was awarded the Bertelsmann Prize for this successful program.

What is quality assessment?

One of the crucial elements of or steps in a quality improvement system is the periodic or continuous assessment of the actual care and services provided to patients. Data are needed, first of all, to identify needs for improvement, and, secondly, to demonstrate to society whether the quality of care provided is in line with acceptable standards, for example, using accreditation schemes for practices or certification of doctors as described in the following chapter.

There is evidence from studies conducted in European family practices, and from other parts of the world, that there is wide variation in the quality of care provided for patients, often around an unacceptable mean (Roland 2004, Schuster 1998, Seddon 2001). This evidence is now starting to drive change, though it has taken some time to engage

policy makers and it is apparent that the public is still not aware of the significance of variation.

Thus, the first aim is "internal assessment," i.e., collecting data, which can help care providers define goals for improvement and later to verify whether change has been achieved. This need is driven by findings in research that there are large, unwanted variations in performance between care providers, as described above, by the rise of evidence-based practice giving medical professionals the means to examine their own care, and by social pressure on the medical professions to keep the trust of the public.

But "external assessment" and public accountability are also demanded by authorities, patients and financiers. Data are needed to assure the public that patients receive the care they should or to facilitate the choice for patients between care providers. This need is driven by data showing that health care often fails to meet the needs of patients or by scandals from health care undermining public trust.

There is a tension between these two approaches. Both approaches demand valid and reliable measurement: quality indicators, criteria and standards, as well as methods to collect the necessary data. We will revisit the subject in the following chapter. The rest of this chapter will first focus on indicators and data collection and then position the assessment of care provision and primary care performance in a wider context.

What should be measured?

For some disciplines in health care, the outcomes are fairly clear. For cardiac surgery, for example, these may include complication rates and mortality rates. Primary care is different. It addresses a wider range of patient needs, and patients often having multiple problems where desirable outcomes are contested. Primary care deals with many issues that are less easily measured and is responsible for areas of great uncertainty and complexity.

This means that, while quality assessment and improvement procedures within all health care should be equally rigorous, the assessment of quality in the primary care sector is and should be different from that in the hospital sector. Since quality in primary care is multi-faceted, its assessment must also be multi-faceted (Roland 2004).

Structure, process and outcome aspects should all be part of such an assessment. The different facets of primary care may be usefully classified as (Buetow 1995):

- Availability and accessibility of care, including making appointments and waiting times
- Clinical competence, diagnostic and treatment effectiveness
- Communication skills, including listening, patient education and sharing decisions
- Interpersonal attributes, such as compassion and respect for patients
- Organization of care, including continuity and coordination of care

Indicators can be developed for each of these aspects of primary care, though some are easier to develop, and more scientifically robust, than others.

Example: Patients in Europe evaluate primary care (EUROPEP)
The European Commission funded a project to develop an internationally validated instrument and a set of indicators for patients' evaluation of primary care. The indicators and instrument were developed in a rigorous process of literature review, qualitative studies among patients and practitioners and various pilot tests. Researchers from 12 countries were involved.
The project identified a set of 23 indicators of the quality of general practice care, as perceived by patients relating to services, access, information provided, continuity of care, etc.
A large European study among over 16,000 patients in primary care in 16 countries was conducted to identify differences in patient evaluations (Grol 2000). In general, patients were very positive about the care received, particularly about the communication with the doctor. Patients in some countries (e.g., Switzerland, Germany) were more positive about the organization of services than patients in other countries (e.g., UK, Denmark).
The EUROPEP indicators and instrument are now widely used in Europe for monitoring primary care, both for internal and external evaluations.

The development of indicators

A quality indicator is "a measurable element of practice performance for which there is evidence or consensus that it can be used to assess quality and hence change in the quality of care provided" (Lawrence 1997). Indicators do not provide definitive answers about the quality of care. What they do is highlight areas of performance that may require further investigation and potential problems that might need attention (Campbell 2002). In that way, they can be seen as important non-judgmental tools for the improvement of health care. They differ from guidelines (global statements of appropriate care to support decision making) and standards (concrete description of minimum standards and targets for improvement), which both seek to guide performance in a specific direction.

Examples of guideline, indicator and standard
Guideline: Eligible women should be offered routine cervical screening
Indicator: The proportion of eligible women who have had cervical screening carried out within the recommended period
Standard: The proportion of eligible women with cervical screening within the recommended period should be at least 80 percent

Indicators for primary care quality are now widely developed in many countries, mostly for clinical performance in health conditions with a sound evidence base (such as diabetes, heart failure or depression) and for patient evaluations of care provision (see examples). Indicators for structural aspects of care provision, for example, the organization and management of care, are less well developed. However, quality indicators for practice management are as important as indicators for clinical care because practice organization has the propensity to diminish or enhance the quality of clinical care.

While evidence that high-quality clinical care or outcomes are associated with good practice management is limited, a well-organized practice provides the opportunity for patients to receive it. Undertaking an effective examination, for example, is not possible if the necessary equipment is not available. Patients also value service aspects

such as a good accessibility, patient involvement and time for care. This book focuses on the assessment of these practice management aspects of primary care.

The attributes of a good quality indicator have been defined (Campbell 2002). It should be valid (represent the concept being assessed accurately, and be underpinned with evidence or consensus), reproducible (application of the same method for development would produce the same indicators), feasible (accurate data are available), acceptable (the indicator is acceptable to those being assessed), make reliable assessment possible and be sensitive to change (can detect changes in quality.

A systematic approach to developing indicators is therefore recommended. Preferably, they should be based on scientific evidence because the better the evidence the stronger the outcomes in terms of benefits for patients. There are, however, many grey areas of health care for which the scientific evidence base is limited. This is particularly true for primary care practice. In these circumstances, expert opinion needs to be integrated with the available evidence using consensus techniques, which are structured facilitation techniques designed to explore consensus among a group of experts by synthesizing opinions. Consensus involves the extent to which respondents agree with the issue being considered and with one another. Since experts may disagree, the procedures used to develop indicators need to be systematic, rigorous and reproducible.

Different systematic approaches can be observed in the literature: for instance, the nominal group technique, the Delphi technique, the RAND appropriateness method and the evidence-based guideline-driven indicator development using an iterative rating procedure (Campbell 2002).

- The Delphi technique is widely used for indicator development. It consists of a structured interactive method involving repetitive administration of questionnaires, usually across two or three postal rounds, with participants receiving feedback between rounds. Face-to-face meetings are usually not a feature. This approach enables a large group to be consulted from a geographically dispersed population and permits the evaluation of a large number of scenarios in a short period of time.
- The RAND appropriateness method combines expert opinion and scientific evidence in a systematic and quantitative procedure. It

asks panelists to rate indicators, then to discuss them in a personal meeting, and then to re-rate them. It also incorporates a rating of the feasibility of data collection for the indicator. A systematic literature review on the scientific evidence precedes the procedure. Participants are presented with this evidence to help them make their decisions. The panels are smaller than with the Delphi technique since panelists meet in person.
- Guideline-driven indicators: When clinical guidelines are available, indicators can be directly derived from these guidelines using an iterated consensus procedure with different panels that pre-select key recommendations from the guidelines, rate these for health benefits, costs, feasibility for data collection, etc., develop possible indicators and test these on routine data. Both in UK and the Netherlands, this procedure has been used for nationally developed guidelines for primary care.

Many different factors will determine how good the indicators developed in such procedures will be, for instance, the composition and size of the panel, the inclusion of different stakeholders, the evidence available, the rating process (e.g., scale) and the panelists' experience with the care processes being rated.

Aims and content of this book

In order to compare the management of general practice in varying health care systems throughout Europe, the European Practice Assessment (EPA) project had three aims. Firstly, to develop a conceptual framework of practice management; secondly, to develop a set of indicators for quality assessment; and thirdly, to create a quality improvement tool that would be applicable throughout Europe.

The book starts with a theoretical section. In the next chapter we will discuss some of the tensions encountered when dealing with assessment of practice. Emphasis on transparency of performance and accountability of the care given to patients may lead to a decrease of trust of the public in health care and in professionals working in health care. This trust, however, is needed for good care outcomes.

In the following chapter we will also have a more detailed look at current assessment systems, particularly the formal systems for ac-

creditation and certification. We conclude that there is quite some confusion in terminology and approaches used, while the evidence for the best approach is lacking. Rigorous development of assessment and evaluation systems is required, which is what we aimed for in the EPA project.

We then move to an analysis of current instruments and systems for assessment in primary health care. An overview is presented of the instruments developed in the last decade and it is concluded that internationally validated indicators and tools for measurement are lacking and need to be established.

The next part of this book is focused on the practical side of the assessment of primary care practice. We start this part with a short presentation of the EPA projects, their aims and methods. The following chapter presents the results of a systematic process conducted in six countries for developing indicators. It proved to be possible to establish a set of indicators common and valid in the different countries.

The chapter titled "EPA pilot" describes a pilot test using the indicators in nine countries. Data were gathered to determine whether practices (about 30 per country) meet the indicators, but most of all to see whether the indicators are of good (psychometric) quality. It proved to be possible to select a core set of indicators for further international use. The following chapter is a reflection on the use of the data in feedback and quality improvement in the participating practices. Specific examples are given to illustrate the difficulties and opportunities.

The book ends with a reflection on the main results of the project and the next steps on the road to international implementation.

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Ensuring Accountability: The Balance Between Trusting and Checking

Martin Marshall, Huw Davies

Doctors, in their role as professionals and as public servants, have always had to be accountable for their actions. In the past, this accountability has been largely implicit—holding a medical qualification, a license to practice and the day-to-day demonstration of an acceptable level of competence have generally been sufficient to satisfy the public that clinicians can continue to do what they are doing.

Increasingly, however, we are hearing demands for more explicit demonstrations of competence and integrity. Terms such as targets, league tables and regulation are now heard alongside qualifications, registration and personal experience. We are therefore seeing a significant shift from accountability based on trust to accountability based on checking, using measurement and surveillance. In this chapter, we will consider the implications for policy makers and for the practitioners of family medicine.

What does "being accountable" mean?

The term "accountability" refers to a willingness to explain or justify one's actions. In defining it we need to think of both the nature of the account(s) that can reasonably be demanded and of the nature of the sanctions that can be imposed should the account be inadequate in either form or content. Individual doctors or health organizations can be called to account in a number of different ways (Davies 1998):

– They might be required to provide a formal account of their behavior or performance, for example in the form of written documentation. Publications by provider organizations of annual reports, increasingly containing quantitative performance data, are becoming commonplace in many countries.

– Providers can be held to account by market forces. Here, consumers are expected to use a range of different sources of information to make a judgment about the performance of the provider. On the basis of this judgment, they might then choose to seek care from an alternative source and thereby indirectly hold their provider to account.
– Providers might be held to account using legislation, and consequent litigation, to protect the public interest.

Checkland and colleagues (Checkland 2004) describe the implications of the use of the term "accountability." First, there is a need for an audience to whom the provider is accountable. There are a large number of potential stakeholders with an interest in holding providers to account, including patients, the public, government, regulators, professional bodies, the judicial system, employers and the media (Donaldson 2001).

The interests of these different groups may sometimes be in conflict. For example, an individual patient might want a form of treatment from his or her family doctor that is incompatible with professional values or with the availability of resources. If the doctor decides to provide the treatment, they will be able to render an acceptable account of their practice to one stakeholder, but an unacceptable one to another. Second, there is little point in demanding an account, in the absence of any form of sanction could that account not be rendered, or should it be unacceptable. In some health systems, there are few opportunities for patients to exercise choice of provider, and in others it can be difficult for elected representatives to hold powerful professionals to account.

What role does trust play in holding providers to account? There are many different definitions of "trust," but they all describe a collective set of expectations—that professionals are knowledgeable and competent, and that they focus primarily on the interests of the individual patient in front of them, and secondarily on broader community or societal interests (Davies 1999). Although it is possible to trust a system or organization, manifest for example in the expectation that a hospital will provide high quality care, this trust is built on a foundation of personal experiences and the stories that emerge from these experiences. The importance of personal experiences implies that it takes time to build up trust, but that it can be quickly damaged or lost.

Trust is particularly important when dealing with uncertain or complex issues, where it may be difficult or impossible to provide objective evidence. There is little need to trust an estate agent when we buy a house—we can seek evidence from our own or a surveyor's investigation as to the veracity of the agent's claims about the property. In contrast, when a family doctor tells us that our headache is nothing to worry about, most of us do not have the wherewithal to indulge in significant checking that this is indeed the case. Instead we trust the doctor on the basis of many different cues: that we know that doctor is well trained and licensed to practice, that the health centre where the physician works has a decent reputation, and perhaps because of our own reassuring prior experiences with this individual doctor.

Smith has distinguished between the concepts of trust and confidence (Smith 2001). Trust is something that arises between individuals and is necessary in situations of uncertainty and vulnerability. Confidence is something that individuals express in systems, in situations of certainty and security. Checkland et al. (2004) claim that the current trend towards explicit forms of accountability represents a preoccupation with confidence over trust and an unwillingness to acknowledge the uncertainties associated with health care provision.

The balance between trusting and checking

There are some significant advantages to ensuring accountability through trust, rather than by demanding objective evidence (O'Neill 2003). Most importantly, emphasizing trust is an easy and inexpensive way of running a health system. Trust can be seen as a form of social capital, or money in the bank, which helps to reduce transaction costs and can be drawn upon at times of difficulty. Collecting data can be a highly resource-intensive process, in terms of financial cost and staff time. In addition, there is a temptation to overplay the validity and reliability of performance data. We frequently forget that quality indicators are precisely what they say they are—indicators rather than statements of fact (Marshall 2001).

Justifiable criticisms of the quality of the data used to hold providers to account have tended to result in demands from regulators for more data, using increasingly complex systems of risk adjustment and increasingly sophisticated information systems. The result are

spiraling activity and costs and an unwillingness to stand back and question the opportunity costs of emphasizing checking over trust.

We know from studies in health and non-health sectors that an over-reliance on checking can have unintended consequences (Smith 1995, Mannion 2001). For example, the use of performance data, particularly when they are made public (Marshall 2000), can lead providers to focus only on those issues that are being measured and on short-term reporting cycles, rather than on longer-term strategic goals. It can also result in manipulation of the data and sometimes in fraud. In the UK, where the publication of performance data has been used extensively to promote greater accountability, there are many examples of unintended consequences in areas such as waiting times for treatment and ambulance response times (Audit Commission 2003, Carvel 2003).

Both the costs and the intended consequences of over-emphasizing checking can have a detrimental impact on staff moral and commitment. Some authorities have argued that in order to promote improvements in practice, it is necessary to achieve a balance between internal motivation and external incentives or sanctions (Davies 1999, Harrison 2004). There is a risk that an over-reliance on the latter may damage the former, resulting in a less committed and demoralized workforce, with consequences for the many discretionary components of work as well as for recruitment and retention. Such impacts are likely to damage the quality of patient care.

However, despite the strength of these arguments in favor of trust, it is important to recognize why alternative ways of holding providers to account are being sought (Smith 1998). The historical reliance on trust has given us a health system in which wide variations in quality of care, often around an unacceptable mean, have either been tolerated or ignored. Numerous examples of unacceptable performance are only now coming to light, as hard information becomes more available to the public and to regulators. There is a real danger that an emphasis on trust can shield the incompetent and induce complacency.

Factors affecting the balance between trusting and checking

There are diverse approaches to addressing the issue of accountability across Europe, with some countries demonstrating a high level of

trust and others focusing more on checking. What are the driving factors? National culture is almost certainly a key factor. Some cultures place a greater emphasis on, and respect for, professionalism and are more willing than others to show deference to and trust for doctors.

Political drivers are also important. Countries with centralized and publicly-funded health systems have placed earlier and greater emphasis on the efficient use of resources and on system-wide improvements in health provision. Accountability for the ways in which money is spent and for the quality of care provided has been central to these aims.

Societal factors play a part as well. We live in societies that are becoming more demanding and less tolerant of risk, though this is happening at different rates in different countries. So too is the trend towards greater consumerism, fuelling demands for more information and placing less emphasis on traditional values such as trust.

Perhaps most important, particularly in the minds of policy makers, is the impact of health care scandals and disasters on the willingness of the public (or at least of politicians) to trust professionals and health organizations to ensure standards without external monitoring. There is no shortage of examples of public trust being misplaced and abused, from the inadequate screening of blood products in France (Dorozynski 1999), the failure to identify poor pediatric cardiac surgical outcomes and the murderous practice of Harold Shipman in the UK (Smith 1998) to the cervical screening disaster in New Zealand (Ovretveit 1996). To a certain extent, these isolated incidents are used for the political purpose of enabling governments to push through major health system reforms. But it would be foolish to discount the collective impact of these scandals on the willingness of the public to trust traditional models of self regulation.

Accountability in the future

There is little doubt that accountability will remain an important issue for policy makers and for practitioners in the future. The challenge is to achieve a balance between trusting and checking as means of ensuring accountability. This balance will need to be flexible—there is no right answer for all countries, or even for different situations and

at different times within a single country. The trend is undoubtedly towards more explicit forms of accountability—this is inevitable and, given the well-publicized failures of trust, probably desirable. It is, however, essential that the human and financial costs of demanding hard evidence of performance are recognized and the implications of damaging trust are properly considered.

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External Accountability: Accreditation and Certification for Primary Care

Stephen Campbell, Georg von Below, Henrik Brinkmann, Ferdinand Gerlach

Introduction

The previous chapter considered the balance between trust and control in ensuring accountability. There is a difference between external assessment and internal assessment, as discussed in the first chapter. There are various models of external accountability, including peer review, accreditation, statutory inspection and certification. This chapter focuses on external accountability, specifically accreditation and certification, and on the importance of effective systems of external assessment. We discuss how accreditation schemes can be used either as a non-judgmental strategy for quality improvement or as a judgmental regulatory mechanism for stating that a practice or individual is competent to provide services. External assessment forms part of the shift towards accountability based on "checking" currently seen throughout Europe.

What is accreditation?

Accreditation is defined as official recognition, acceptance or approval of someone or something (Cambridge Advanced Learners Dictionary 2004) involving an assessment of an organization against explicit published standards (Shaw 2000) to encourage best management practice. This can relate to organizations, individuals or drugs and procedures. In health care, the term accreditation can cause confusion, having acquired different meanings (Shaw 2001). These include recognition of specialty training by professional bodies (i.e., palliative care) and, the focus of this chapter, recognition of organizational competence.

In terms of general practice or primary care, accreditation is a method of checking and standardizing the provision and quality of health care provided by practices to focus attention on continuous quality improvement by assessing the level of conformity to a set of pre-determined targets or standards (Scrivens 1996). However, this checking can have five different purposes (Buetow and Wellingham 2004):

- Quality control, i.e., a practice provides services to an intended standard
- Regulation, i.e., to comply with minimum legal and safety standards
- Quality improvement, i.e., the RCGP Quality Team Award in the UK
- Information giving, i.e., to enable patients to compare practice performance
- Marketing, i.e., to highlight the standard of services available at a practice

Definitions

Accreditation: Official recognition, acceptance or approval of someone or something involving a systematic assessment of an organization against explicit standards to encourage best management practice

Licensing: A mandatory process that refers to the legal standards required by a health care organization or individual to be fit to practice and to provide safe care

Certification: A process that moves beyond licensure whereby an individual or organization is recognized officially by an authorized external agency as meeting predetermined requirements or standards

The process of accreditation

Accreditation involves an independent evaluation to assess whether a practice meets specific requirements of institutional competence, usually overseen by an accreditation board. Accreditation requires practices or individuals to prepare for, participate in and often pay for

the assessment. Each practice usually submits a portfolio of evidence using questionnaires, often followed by a practice visit by an assessment team.

The outcome of undergoing accreditation is a score denoting compliance with the stipulated standards. Accreditation predominately focuses upon service delivery and integration, public accountability and risk management. It is how this evaluation is used which distinguishes between regulatory and educational systems. "In many cases, health care systems have attempted to promote the search for quality rather than the assurance of quality." (Scrivens 2002)

Accreditation is the most rapidly developing model of external assessment worldwide (Shaw 2004). However, the traditional model of voluntary accreditation (trust) is being rapidly adapted towards government-sponsored or even statutory tools for control and accountability (Shaw 2003), with mandatory regulatory programs having recently been developed (Shaw 2001, 2002), as discussed below.

What is certification?

Licensure is a mandatory process referring to the minimum legal standards required by an organization or individual to provide safe care; for example, a license to practice medicine as a general practitioner. Certification moves beyond licensure with an individual or organization recognized officially by an authorized external agency as meeting predetermined minimum requirements (Buetow and Wellingham 2004); for example, for providing osteopathy or child health surveillance.

The process of certification

Certification involves an inspection to assess if the performance of an individual or organization complies with predetermined standards, usually after completion of a course of training. The outcome, if successful, is a certificate asserting that the organization or individual is certified for a given time period to provide services to a necessary standard, during which time reassessment is unnecessary because the required standards have been met. If unsuccessful, the service cannot

be provided. Certification focuses on the competence (skills, knowledge, etc.) of individual practitioners or on the infrastructure of a practice. Certification can also be used as part of a formal regulatory mechanism, e.g., revalidation of general practitioners in the UK.

Types of accreditation and certification in Europe

There are differential stages of development and coverage of accreditation and certification in Europe for general practice, and many schemes relate to hospital-based services (Shaw 2002, Scrivens 2002). Some are compulsory aligned to perceived minimum standards or license to practice, and others are voluntary focusing on quality improvement, some are state administered, whereas others are implemented by local, regional or professional agencies. There has been no attempt to coordinate these country-specific activities.

There are mandatory inspections such as those carried out by the Clinical Standards Board in Scotland or the Commission for Health Assessment and Improvement (CHAI), revalidation of general practitioners in the UK or clinical standards based accreditation systems such as the Agence Nationale d'Accreditation et d'Evaluation en Santé (ANAES) in France. Both CHAI and ANAES are quasi-independent organizations. Alternatively, there are mandatory accreditation schemes run by regional governments in Italy. In the Netherlands, the Nederlands Instituut voor Accreditatie van Ziekenhuizen (NIAZ) accredits hospitals, also supported by government.

There are several independent programs in Switzerland: the Agence pour la Promotion et l'Evaluation de la Qualité (APEQ), Vereinigung für Qualitatsförderung im Gesundheitswesen (VQG) as well as the EQUAM foundation, which promulgates joint standards.

In Germany, hospitals are obliged to introduce internal quality management programs and to participate in external quality assurance activities. A collaboration of sick funds, hospital organizations and physicians (German Medical Association) work together (Kooperation für Transparenz und Qualität im Krankenhaus, KTQ). However, the acceptance and impact of this particular initiative, which was funded by the federal government and influenced by international examples (e.g., U.S. Joint Commission on Accreditation of Healthcare Organizations, Canadian Council on Health Services Ac-

creditation and Australian Council on Healthcare Standards), remains unclear. The same formal requirements will be required for all ambulatory care practices from 2004. Minimal requirements will be defined by sick funds and statutory health insurance physicians in a federal joint commission (Gemeinsamer Bundesausschuss) in 2004.

There are voluntary accreditation schemes in the UK (e.g., Health Quality Service accreditation service or the RCGP Quality Practice Award). There are also voluntary accreditation schemes that cross national boundaries, e.g., the International Organisation for Standardization (ISO) standards, which relate to administrative procedures, such as ISO 9000 focusing on systems and business excellence. An ISO certificate is sometimes a prerequisite in order to provide certain services. The European Foundation for Quality Management (EFQM) is based on a self-assessment questionnaire, with organizations assessed against performance standards for clinical results, patient satisfaction and staff management (Nabitz 2000).

Example of accreditation: ANAES, France
Accreditation is a mandatory requirement of all French health care organizations, manifested by minimum standards of attainment, overseen by the Agence Nationale d'Accreditation et d'Evaluation en Santé (ANAES) established in 1997. Accreditation focuses on three key areas, which are patients and patient care, management and administration, and quality and prevention. Accreditation is by self-assessment but is highly prescriptive. ANAES has, for example, the power to enforce compliance with clinical guidelines.

Example of certification: Revalidation, UK
Revalidation of doctors in the UK, which is due to commence in 2005 will provide doctors with a license to practice and show the regular demonstration by doctors that they remain fit to practice (General Medical Council 2003). By January 1, 2005, any doctor wishing to practice must hold a license to practice. It will take up to five years to revalidate all doctors initially, with a second round of revalidation beginning in 2010. Doc-

tors will be revalidated five years after the date of their first revalidation.

Advantages of mandatory versus educational accreditation systems

External accountability involves a third-party assessment (i.e., a government or quasi-independent government agency or professional body). Systems of external assessment can broadly be divided into two types (Shaw 2001):

- Mandatory and regulatory systems, which are judgmental, only allowing organizations or individuals to do something (i.e., to provide medical services) because they have met minimum standards.
- Non-judgmental educational or collegiate systems employing optimum standards that foster quality improvement by focusing on education, self-development, improved performance and reduced risk, with organizations and individuals allowed to provide services irrespective of the standard of performance.

An effective systems-based quality improvement strategy at a national level needs a balance between such regulatory and educational approaches.

Advantages of mandatory and regulatory systems

There is increasing movement between countries by people within an expanding European union, who want reassurance about the quality and safety of health care. Patients must feel that they can trust their doctors. Effective external accountability with clear standards provide an opportunity to demonstrate and reward acceptable performance and to identify and deal with poor or unsafe providers, whether organizations or individuals.

There is evidence of unequal access to care, variation in performance, inefficient use of resources, preventable adverse events (errors) and accidental injuries (patient safety). Increasingly, the public as well as government and health professionals themselves want to know what standard of quality of health care organizations and individuals

are providing. The fact that many people do not receive the care they require (Seddon et al. 2001) suggests a need for minimum performance standards because there is a gap between what works and what patients actually receive.

Educational systems may enable people to practice without ever achieving a minimum standard. However, summative assessments set a standard that must be achieved. This requires an understanding of what level of performance is unacceptable (i.e., poor clinical or inter-personal care or a lack of commitment to professional development), remediable by systems-based action (i.e., better equipment, team training) or individual action (i.e., individual re-training).

Advantages of educational systems

Many quality improvement approaches are ineffective when used in isolation, including audit, accreditation, feedback, clinical guidelines and continuous quality improvement (Campbell 2002). Strategies that combine continuing education, audit, assessment and quality improvement, linking learning to daily routine, may have a greater chance to lead to changes in behavior (Calman 1998).

Education and learning at the organizational level are the primary drivers for quality improvement and change (Berwick 1996). Primary health care teams need time, support and resources to learn, work and plan together. Quality improvement comes from every level within a health care system: nationally, regionally, locally or at the team or individual level (Ferlie 2001). "Regulation in the control of quality in health care cannot be based on coercion—it has to be based on persuasion and support to health care professionals" (Scrivens 2002). An organization or individual that takes part in an external assessment will focus on quality improvement, irrespective of the outcome.

Accreditation does not guarantee against a doctor or practice providing poor care. Moreover, while practices that have in place essential practice management procedures and infrastructure are better placed to provide quality care (Donabedian 1980), the link between practice management and quality outcomes has not been proven. Concerns also persist about the effectiveness and appropriateness of practice accreditation despite a mounting international recognition of its importance (Buetow and Wellingham 2004, Shaw 2003).

Implications for improving the quality of health care

External assessment of health care is a Europe-wide phenomenon. However, strategies that are effective in one country may not be so in another country due to differences in, for example, culture, national regulations or regional semi-autonomous conventions, the level of professional fragmentation, public expectations, the financing of health care, etc. External assessment, which crosses national boundaries, needs to be sensitive to these differences with evidence collected for the suitability of the procedures, standards and indicators in each country.

External assessment must be relevant to the health care system or practitioners being assessed and known and understood by every doctor. Standards should be published, transparent, encourage self-assessment and set at achievable optimal levels, enabling organizations to strive to meet a realistic target. Standards should also be underpinned by accurate and available data and show evidence of acceptability, feasibility, reliability and validity.

Conclusion

Accreditation and certification can serve both to reward previous achievement and to encourage future improvement. However, accountability/assessment is not a neutral activity. Especially when used as part of a system of regulation, it requires judgments about what constitutes a minimum standard. As discussed in the first chapter, the scientific evidence base describing what constitutes quality practice management is currently lacking throughout Europe, allied to a diversity of approaches to delivering primary care and external assessment. This suggests the need at present for systems of external accountability of practice management, which focus on education rather than regulation and on developing an integrated European approach. However, "with support, all practices should be required to demonstrate their ability, or capability, to meet at least minimum standards whilst aiming for excellence" (Buetow and Wellingham 2004).

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Organizational Assessment in Primary Care: An Overview

Melody Rhydderch, Adrian Edwards, Glyn Elwyn, Martin Marshall, Richard Grol

Introduction

Assessment of practice management and organization of care should be an integral part of quality assurance and quality improvement activity in primary care. Evaluation of infrastructure, human and financial resources, accessibility of services, information technology and quality improvement activities can enable a practice to target its efforts and resources optimally to the needs of its patients (Department of Health 2001, Committee on Quality of Care in America 2001, Moss 1998, Huntington 2000, Hulscher 1997, Flocke 1998).

Assessments of practices can be either externally or internally driven (table 1). At one end of the spectrum, organizational assessments are conducted for reasons of accountability and exist as externally driven quality assurance systems. Their use as formal mechanisms to accredit and certify primary care organizations is discussed in the preceding chapter. At the other end of the spectrum, organizational assessment is conducted for the purpose of practice-driven quality improvement. It typically exists in the form of practice-based quality improvement projects (Campion-Smith 2002, Miller 2001).

The balance between (external) accountability and (internally driven) trust is discussed in the chapter "Ensuring Accountability." However, a recent review of the literature suggests that there is a middle ground between approaches based on external accountability and trust. This is occupied by professionally-led mechanisms such as those in Australia, New Zealand, the UK and the Netherlands (van den Hombergh 1998b, RACGP 1996, RNZCGP 2002, Booth 1998, Miller 2003, RCGP 2002, SRCGP 2002, Macfarlane 2004). In these countries, accreditation mechanisms are used both to recognize past achievements and to catalyze future quality improvement.

Table 1: Nomenclature for quality assessment and quality improvement activities

	Externally-led quality assurance/assessment		⟷	**Internally-led quality improvement**
Primary stakeholder	Accrediting agency	Government inspectorate	Professional body	Practice
Aim	Quality assurance	Quality assurance	Quality assurance and improvement	Quality improvement
Purpose	Commercial, accountability	Accountability, regulation	Self-regulation, education	Service development
Criteria based upon	Excellence	Entry (threshold) standards	Superior (maximal) standards	Local service-specific criteria
Level of definition	International and national	National	Professional	Practice
Criteria describes	Generic processes	Historical competence	Historical and future competence	Future competence
Assessment by	External assessors (industry based)	External assessors	External assessors, combined with internal (self) assessment	Internal (self) assessment
Emphasis (led by)	Accrediting agency	Primary care	General practitioner	Practice
Mechanism of assessment	Accreditation			Determined by practice
Values	Summative		Summative and formative	Formative
End point	Certificate	Licensing contract payment	Certification	Local criteria achieved

In this chapter, we summarize the current literature on organizational assessments, particularly those conducted for the purpose of quality improvement and assurance used in primary care settings. We identify gaps in the existing provision of assessments to support improvements and make suggestions for the future direction of this developing field. We have used systematic reviews and other key literature in the field for this purpose (van den Hombergh 1998a, RACGP 1996, RNZCGP 2002, Booth 1998, Miller 2003, RCGP 2002, SRCGP 2002, Macfarlane 2004, Walshe 2000, Klazinga 2000, Nabitz 20000, Shaw 2001, Department of Health, Buetow 2003, Rhydderch 2004, van den Hombergh 1995, 1998b, 1999a, 1999b, Starfield 1998, Crabtree 201, Mohr 2002, Elwyn 2004).

We assumed the term "organizational assessment" to cover an instrument and the method and procedures by which it is used. We defined primary care according to an accepted definition as "the first point of contact for patients seeking health services, provided in a community setting, by health care professionals who are generalists rather than specialists, in ways that promote continuity of care over time or longitudinal contact between patients and health care professionals." (Walshe 2000).

International accreditation-led assessment

The European Quality Award is perceived as Europe's most prestigious award for organizational excellence. It has existed since 1990. It is open to high-performing organizations and emphasizes the importance of results, customer focus and leadership (Klazinga 2000). ISO 9000 assesses quality management processes within an organization, emphasizing customer requirements, satisfaction and continual improvement (Nabitz 2000). Both awards are more likely to attract the interest of practices that already have well-developed and formalized organizational systems and may be of more interest to practices based in countries where national arrangements for accreditation do not exist. On a cautionary note, very little is known about the validity and reliability of the standards and measurement processes that are used as part of these forms of external assessment (Shaw 2001).

Table 2: International accreditation-led assessment

Award (accrediting organization)	**Purpose**	**Factors assessed**	**Assessment method**
European Quality Award (European Foundation for Quality Management)	To reward excellence and create a small number of role models	– Leadership and constancy of purpose – Customer focus – Corporate social responsibility – People development and involvement – Results orientation – Management by processes and facts – Continuous learning, innovation and improvement – Partnership development	– Application – Visits by assessors who are senior industry managers
ISO 9000 (International Standards Organisation)	To reward those who achieve their standards	– Customers' quality requirements – Applicable regulatory requirements – Enhanced customer satisfaction – Achieve continual improvement of its performance in the above	– Application – Baseline and final visit by external assessors

Government-led assessment

The Health and Social Quality Awards, administered by the Department of Health in the UK, is an example of government-led assessment (Department of Health 2001). This type of award reminds us of the changing nature of organizational systems in primary care. The development of multi-professional primary care teams and the strengthening links with social care mean that a well-organized practice is a necessary but insufficient condition for quality patient care. The same criticism leveled at international accreditation systems applies regarding lack of validity and reliability work conducted with respect to the standards and methods of measurement that are used (Shaw 2001).

Table 3: Government-led assessment for the purpose of quality improvement (example)

Award (accrediting organization)	**Purpose**	**Factors assessed**	**Assessment method**
Health and Social Care Team Award (Department of Health)	To recognize contributions to overcoming barriers between health and social care	– Patient-user approach – Impact on patients, caregivers and staff – Innovation – Team working	– Application – Interview and visit

Professionally led assessment

Examples from Australia, New Zealand, the Netherlands and the UK are included in this category (RACGP 1996, RNZCGP 2002, Booth 1998, Miller 2003, RCGP 2002, SRCGP 2002, Macfarlane 2004, van den Hombergh 1995, 1998b, 1999a, 1999b). The common features of these approaches are the involvement of the country's specific College of General Practitioners, government involvement, an educational emphasis, assessment by practice visiting and standards that are updated and republished every four to six years.

Australia developed National Standards in 1991 through partnership work between the government and the Royal College of General

Practitioners. A distinctive feature of the Australian system is the separation of standard setting, which is led by the Royal College, from award giving which is conducted by AGPAL (Australian General Practice Accreditation) and GPA (General Practice Accreditation) (RACGP 1996, Booth 1998, Miller 2003).

New Zealand developed a practice accreditation system using national standards that cover legislative requirements, essential requirements and "gold star" performance. A distinctive feature of the New Zealand approach is emphasis on standards used as part of continuous quality improvement in practices (RNZCGP 2002).

The Netherlands' practice assessment method (Visit in Practice) was developed by a general practitioner, Dr. Pieter van den Hombergh, at the Centre for Quality of Health Care (WOK) at Nijmegen University. It is a practice-led assessment and uses a visit method linked to practice development and continuous improvement supported by outreach visitors. A distinctive feature of this approach is the commitment to publish the development, design and evaluation of this assessment in peer reviewed journals (van den Hombergh 1995, 1998a, 1999a, 1999b).

In *Great Britain*, the Royal College of General Practitioners developed three awards for primary care organizations, two of which are described here. The Quality Practice Award is based on standard setting work conducted by the Royal College in Scotland in 1996 and the emphasis is on quality assurance (RCGP 2002). The Quality Team Development emphasises quality improvement (SRCGP 2002). Thus a distinctive feature of the UK approach is the separation of quality assurance and quality improvement activity.

Publication of the design and development work undertaken by practice accreditation is variable. The Visit in Practice method (VIP) stands out as having international peer reviewed publications and a PhD thesis covering each stage of the design and development process (van den Hombergh 1995, 1998a, 1998b, 1999a, 1999b). Australia also has peer-reviewed publications and a recently completed PhD thesis on the assessment of primary care (Booth 1998, Miller 2003). The UK is also about to publish a peer reviewed evaluation of the success of the Quality Team Development award (Macfarlane 2004).

Table 4: Professionally led assessment (examples)

Country (lead organization)	Purpose	Factors assessed	Assessment methods
Australia (Royal College of Australian General Practitioners)	To attain highest quality, be publicly recognized, voluntary and educational	– Practice Services – Rights and needs of patients – Quality assessment and education – Practice Administration – Physical factors	– Interviews – Direct observation – Review medical records – Results – Practice held data – Patient feedback
New Zealand (Royal New Zealand College of General Practitioners)	To be a catalyst for continuous quality improvement within a practice	– Physical factors – Practice systems – Practice and patient information management – Quality improvement and practice development	– Practice visit – External assessors
United Kingdom: Quality Practice Award (Royal College of General Practitioners)	To be a quality assurance process	– Practice Profile – Availability – Clinical care – Communication – Continuity – Equipment and minor surgery – Health promotion – Information Technology – Nursing and Midwifery – Practice Management – Other professional issues – Prescribing/repeat prescribing	– Written submission by the practice – Full-day assessment by a panel of four peers

Country (lead organization)	Purpose	Factors assessed	Assessment methods
United Kingdom: Quality Team Development Award (Royal College of General Practitioners)	To be a quality improvement process	– Chronic care – Preventative care – Maternity, child and mental health services – Team working	– Team assesses themselves against criteria – Practice visit by peers to aid development of good practice – Cyclical every two to three years
Netherlands: Visit in Practice (Dutch College of General Practitioners)	To assess and improve management in primary care	– Premises and equipment – Delegation and collaboration – Service and organization – Record keeping – Organization of quality improvement – Workload and job stress	Practice visit by external assessors

Practice-led assessment

The assessments in this section are all designed from an academic and research perspective. Rather than assessing as many organizational factors as is practically possible in a given practice, they are each based on an idea or concept about optimal primary care organization.

Primary care assessment tool, PCAT (Starfield 1998). This instrument is designed to measure whether family medicine units provide good quality health care according to established principles of primary care. Such principles are well defined by the Institute of Medicine (USA) (Huntington 2000) and others and focus on continuity of care, community, orientation, comprehensiveness and accessibility.

Multi-method Assessment Process, MAP (Crabtree 2001). The aim of MAP is to describe multiple aspects of family medicine. Complexity theory is used to identify new insights grounded in the actual experience of practice participants and to foster collaborative change. MAP has been developed to answer research questions about the impact of the organizational context and competing demands on preventative services.

Clinical Microsystem Survey (Mohr 2002). The micro system assessment survey is designed to assess the functioning of clinical teams and to identify potential areas for improvement. It is used both in primary and secondary care and thus reflects health care organization in the USA where provider units often combine under one organization, for example, Kaiser Permanente.

Maturity Matrix (Elwyn 2004). Maturity Matrix is a measure of organizational development using a group process in primary care organizations. It describes the development over time of 11 areas of organization within a primary care organization. A facilitator spends approximately one hour with the practice team and the practice profile is the result of group discussion and debate. This instrument has been used in the UK, Germany, Netherlands, Slovenia and Switzerland.

Table 5: Practice-led organizational assessment

Assessment, (author, year), country	**Purpose**	**Factors assessed**	**Assessment method**
Primary Care Assessment Tool, Provider edition, PCAT, (USA)	To assess principles of primary care	– Accessibility – Longitudinality – Comprehensiveness: services available – Comprehensiveness: services provided – Coordination: integration of care – Co-ordination: medical records – Family centeredness – Community orientation – Cultural competence	A survey instrument (practitioners assesses their practice)
Multi-method Assessment Process, MAP (USA)	To assess practice characteristics associated with preventative service delivery	Features of – Community – Practice – Staff – Patients that researchers and practice team felt to be important	Researchers conduct the assessment, team interprets assessment

Assessment, (author, year), country	Purpose	Factors assessed	Assessment method
Clinical Microsystem Survey (USA)	To assess characteristics associated with "Microsystems"	– Constancy of purpose – Investment in improvement – Alignment of role and training – Interdependence of the care team – Integration of information and technology – Measurement of outcomes – Supportiveness of the larger community	Self-assessment by team member (team rates its practice)
Maturity Matrix (UK)	To assess level of organizational development achieved by primary care organizations	– Clinical records – Audit – Guidelines – Access to clinical information – Prescriptions – Human resource management – Continuing professional development – Risk management – Sharing information with patients – Learning from patients	Group assessment with aid of facilitator; practice team makes decisions about assessment

Implications for policy and practice

The dominant approach to organizational assessment in primary care appears to be professionally-led accreditation or visitation schemes. Such schemes provide a mechanism for practices to demonstrate achievements and to plan future improvements. Their appeal to practices is based on their capacity to combine external assessments and standard setting with practice visits to stimulate specific improvements. However, there is growing recognition that no single mechanism can achieve quality improvement and assurance in primary care organizations (Walshe 2000, Klazinga 2000). Quality improvement and quality assurance initiatives operate in a context of different and sometimes competing demands on practices. The critical skill lies in having a range of assessments available and selecting a method that suits the organization, the problems to be addressed and the wider policy context.

Challenges exist to construct different types of organizational assessments designed for different purposes. Firstly, externally led quality assurance can stifle internally led quality improvement. Their existence as separate but coordinated activities within an overall system is desirable (Walshe 2000, Klazinga 2000). Secondly, whilst professionally led, government-led and commercially led accreditation is well developed in some countries; access to internally led development activities is less well developed. Thirdly, standards take a long time to develop and redefine. An over-reliance on standards-driven improvement means that practices can be in danger of striving to improve against dated benchmarks, essentially driving through the rear-view mirror.

Finally, this review suggests that a gap exists with respect to practices having access to international standards customized to describing core and common features of organization of primary care organizations. An international practice assessment tool for the purpose of quality improvement would provide a structured mechanism for practices to compare themselves to other practices, both nationally and internationally.

This is a developing field containing many different approaches to the measurement of organizational aspects of primary care. If organizational assessments are to succeed in their central role, supporting quality assurance and improvement of the primary care service, they

must be responsive to country specific issues, exist as part of a coordinated national and international framework activity and bring together the experiences of different countries.

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Practice:
The European Practice Assessment Project

European Practice Assessment: An Overview

Maaike Dautzenberg, Yvonne Engels

Introduction

In the previous chapters the issue of externally and internally driven quality assessment was discussed and it was concluded that we need an assessment tool that is valid and feasible in an international context. Although individual countries have developed national tools before (see the previous chapter), no international tools are yet available. This chapter describes the approach chosen for the development of this European quality improvement tool and the pilot study that was conducted to test its acceptability and feasibility.

The aim of EPA was to create a quality assessment and quality improvement tool focusing on the organization and management of primary care that would be applicable throughout Europe.

EPA had the following objectives:

- To develop a conceptual framework for practice management and organization
- To develop a set of quality indicators based on this conceptual framework
- To validate the set of quality indicators at a European level
- To use the indicators as the basis for a quality assessment and improvement tool applicable throughout Europe
- To test the feasibility of the quality improvement tool in a pilot study in six or more European countries
- To make international comparisons of the results of the pilot study in the participating countries
- To provide recommendations for further improvement and implementation of the tool

EPA was conducted as a joint effort of institutes in six European

countries: Belgium (Flanders), France, Germany, Netherlands, Switzerland (German-speaking part) and the UK (England and Wales). The participants were members of EQuiP, the European Association for Quality in General Practice/Family Medicine, and had extensive experience and expertise in quality improvement in primary care.

The coordination of the research activities and international meetings was in the hands of the Centre for Quality of Care Research (WOK) in the Netherlands and the Bertelsmann Stiftung in Germany. Richard Grol (director of WOK) was the central coordinator.

The framework for practice management

Since scientific evidence in this field is scarce, the EPA project group relied mainly on expert opinions and consensus techniques. Systematic approaches that were applied in the EPA project were Delphi techniques and the RAND appropriateness method. These methods are briefly presented in "Quality assessment and improvement in primary care" and the following chapter.

A deductive approach was selected to develop and validate the indicators, starting with a general definition and an abstract conceptual framework for practice management and with indicators and measurement tools that were derived from this framework. The general definition of practice management was "systems (structures and processes) meant to enable the delivery of good quality patient care."

Next, a conceptual framework with five general domains of management in general practices was developed. The domains were subdivided into categories that we named "dimensions." The domains and examples of dimensions were:

- Infrastructure, e.g., premises, medical equipment, drugs, accessibility
- Staff and personnel, e.g., qualification of staff, working atmosphere, education and training
- Information, e.g., clinical medical records, confidentiality of patient data, communication/sharing with other care providers
- Finances, e.g., financial leadership and financial planning.
- Quality and safety procedures, e.g., handling of infectious materials and quality and safety checks, audits and analysis of critical incidents.

The quality indicators

The quality indicators were developed consecutively. A draft set was developed during the EPA consensus meeting. This draft set was then supplemented by indicators taken mainly from grey literature. For the European validation of the indicators, use was made of Delphi techniques combined with the RAND appropriateness method.

First, the EPA partners received written questionnaires in two sequential rounds in which they could indicate whether or not they considered the indicator relevant, could add missing indicators and could make suggestions for rephrasing.

The second step was to validate the indicators in a similar procedure in six national expert panels, with 10 experts per panel. Thus, a panel of 60 members served as a European panel. Panel members received translated versions of the indicators by post or e-mail, which they rated for relevance and clarity of phrasing on a scale from 1 to 9. The process of the European validation of the EPA quality indicators is described in more detail in the next chapters of this book.

After completion of this procedure, the EPA partners selected 168 indicators to be used for the European quality improvement tool. For the selection of the indicators that would be tested in the pilot study, the EPA team opted for inclusion rather than exclusion. That meant that only the indicators that were rated as invalid by all national panels were excluded. Very few indicators (11 in total) met this exclusion criterion.

The quality assessment procedure

The quality assessment tools consisted of a set of instruments to be completed by general practitioners, by staff, by patients and by independent observers visiting the practice. The tools were developed by the EPA team, again on the basis of consensus among international experts with draft versions being adjusted by all EPA partners. Some validated scales were added, such as the Work Satisfaction Scale (Warr, Cook and Wall 1979) and the EUROPEP scale for patient satisfaction (Grol and Wensing 2000). Optional tools were the Maslach Burnout Inventory (MBI) and the Maturity Matrix, a team-based assessment for organizational development (Elwyn et al. 2004).

Table 1: Overview of the instruments and items of the assessment tools and procedure

Instrument	Who	Number of items	Topics addressed	Time needed for completion
Questionnaire for practice manager or general practitioners with management responsibilities	Practice manager or general practitioner with management responsibilities	71	– Accessibility of practice – Availability of doctors – Non-medical equipment – Management of personnel – Degree of patient involvement	15–20 minutes
Questionnaire for individual general practitioners	Every doctor in practice	23	– Work satisfaction	5–10 minutes
Staff questionnaire	Vocational trainees, nurse, practice assistant, secretarial staff members, practice managers, others	27	– Work Satisfaction Scale – Education and training offered at practice	10 minutes
Patient questionnaire	35–50 patients visiting the surgery	29	– EUROPEP – Social-demographic questions	10–15 minutes
Interview with practice manager or main general practitioner	Practice manager or general practitioner with management responsibilities	107	– Medical record-keeping – Organization of preventive activities – Staff policy – Team meetings – Handling of medical equipment – Quality and safety procedures	30–45 minutes

Instrument	Who	Number of items	Topics addressed	Time needed for completion
Observation checklist	Visitor/observer	142	– Availability of general practitioners – Accessibility of premises – Patient leaflets – Privacy in consultation and examination rooms – Content of doctor's bag – Storage of drugs – Handling of disposals	90–120 minutes

The complete EPA procedure consisted of a half-day assessment. An independent observer checked a list of items and conducted an interview with the general practitioner that had the most management responsibilities or with the practice manager. The assessment day was preceded by a preparation period during which the questionnaires for the staff, the general practitioner and the patients were completed and returned to the observer.

The resulting tools and instruments were (see also table 1):

- Self-administered questionnaires for the practice manager or the general practitioner with management responsibilities
- Self-administered questionnaires for individual doctors
- Self-administered questionnaires for each staff member
- Patient questionnaires for 30 patients per practice (in Germany 75 patient questionnaires were distributed)
- An interview with the practice manager or the general practitioner with management responsibilities
- A checklist for the observer

In addition to the tools, a manual for the observer was developed, including a flow chart with the sequence of all activities to be undertaken, and standardized introductory letters for the practice.

The instruments were developed in English and translated into the national languages. Netherlands and Flanders, and Germany and Switzerland, cooperated closely in the translation process.

Pilot study

In 2003 and 2004, a pilot study was conducted in six countries: Belgium (Flanders), France, Germany, Netherlands, Switzerland (German speaking part), and the UK (England and Wales). In addition, the quality assessment procedure was tested in three more countries: Austria, Israel and Slovenia.

Table 2: Quota sample to be recruited in each participating country

	Rural	Urban	Total
Single-handed practice	5	5	10
Practice with two general practitioners	5	5	10
Practice/Health center with ≥ three general practitioners	5	5	10
Total number of practices to be recruited per country	15	15	30

Use was made of convenience quota samples; each country had to recruit a minimum of 30 practices, equally divided into single-handed practices (10), practices with two general practitioners (10), and practices with three or more general practitioners (10). The sample had to include both rural and urbanized practices, preferably 15 in each category.

Data were entered in Epi Info in a standardized data file that was sent to all participating institutes. Epi Info is a computer developed by the Centers for Disease Control in Atlanta to develop a questionnaire or form, customize the data entry process and enter and analyze data.

National variations

Although the research efforts were directed at making the procedure as standardized as possible, the pilot study was conducted slightly differently in each participating country. All institutes were able to recruit the required number of practices, resulting in a total of more than 270 practices in which the EPA tool was tested. The number of practices in each category, however, varied. Some had an overrepresentation of group practices (e.g., France) whereas others had mainly recruited practices in urban areas (e.g., UK). In Germany, more than 30 practices were recruited and 75 patient questionnaires were distributed per practice. A detailed overview of the number of recruited practices is presented in "The EPA Pilot: Practice Management in Primary Care in Nine Countries." The assessment procedure was also adjusted to each national context.

The national contexts in which the pilot study took place appeared to vary widely. Countries differed with regard to the procedure being

novel or part of usual national assessment procedures. In France, for instance, the EPA assessment approach was a relatively new one. National support for this type of procedure was still limited. The instrument had to prove itself first before national implementation was considered.

In Austria, Belgium, Israel and Slovenia, there was a strong interest in participation in the pilot project. In Austria, negotiations were taking place to implement the tools nationally. In the other countries, the support for further implementation after the pilot is still limited.

The Netherlands already has a tradition of practice assessment. The testing of the EPA instruments took place while the application of the national assessment instrument for the organization of general practices (VIP) continued as usual. In fact, the observers that are employed at the regional level to conduct the VIP also tested the EPA instruments.

In the UK, the EPA instruments were tested only for research purposes. Recently a new contract had been signed between general practitioners and the NHS in which various quality indicators were already included.

In Germany, and to a lesser extent in Switzerland, the EPA approach was launched in a competitive market with various organizations claiming to provide quality assessment and quality management systems. The EPA procedure was meant to obtain a leading position in the market for general practitioners. In Germany the assessment was attached with the provision of a certificate, with the certification process being supported by the Praxistest Foundation, a joint initiative by the Bertelsmann Stiftung and Task Force on Practice Assessment (TOPAS) Germany.

Despite the national differences, the EPA assessment procedure was tested successfully without any major problems occurring. The process of implementation and the lessons learnt from it are described in more detail in "The Process of Practice Assessment: Experiences from Nine Countries."

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Quality Indicators for the Management and Organization of General Practices in Europe

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Introduction

In this chapter we will outline how the indicators for the evaluation of practice management in primary care were developed and validated at a European level with the help of a rigorous consensus method. The results of the procedure will be presented and an overview of the indicators considered acceptable and relevant, as well as some examples of indicators rated equivocal or invalid, will be given. Finally, we will discuss the possibilities and obstacles related to developing a common European set of quality indicators for practice management, taking differences in health care systems and national contexts into account.

Methods

Practice management was defined as "systems, i.e., structures and processes, meant to enable the delivery of good quality patient care." Starting from this general framework, a number of dimensions and a preliminary set of indicators were determined by the international expert group. The framework and the dimensions are shown in the following list:

- Infrastructure:
  - Premises
  - Medical equipment, including drugs
  - Non-medical equipment
  - Accessibility and availability
- Staff:
  - Personnel
  - Team

  - Education and training
  - Working conditions
- Information:
  - Clinical data/Customer relationship management/Recall
  - Confidentiality and privacy
  - System for communication/sharing information with colleagues and other health care providers
  - System to process information
  - Information for/from the patient about the practice, practice policy and local environment
  - Scientific information for staff
  - Information for patients about clinical care issues
- Finances:
  - Financial planning
  - Monitoring of the financial plan
  - Financial leadership and responsibilities
  - Annual report
- Quality and safety:
  - Quality policy
  - Detection of quality and safety problems
  - Safety of the staff and patients

The preliminary set of 171 indicators (documented in the annex) was validated at the European level using a specific Delphi procedure, a consensus approach useful when hard research evidence is lacking (Campbell 2002). It allows the consultation of a large number of geographically dispersed experts in a short time period, without the necessity to organize face-to-face meetings. A panel of 10 persons was composed in each of the six participating countries (UK, France, Belgium, Switzerland, Netherlands, Germany), mainly general practitioners, completed with some practice managers (UK and Netherlands). All panel members were required to have expertise in the field of the management and organization of primary care. Thus, the complete European panel consisted of 60 experts with respect to practice management.

Panelists were sent questionnaires by post in two rounds. In the first round, they rated the clarity and the usefulness of the indicators for evaluation. Ratings were on a scale of 1 to 9, 1 being "not clear/useful at all," 9 being "very clear/useful." Panelists were also invited

to rephrase unclear indicators or to add indicators in case they felt that important indicators were missing.

After the first round, the EPA coordination team rephrased about one fourth of the indicators (44), added a few indicators (2) and discarded (5) some. In the second round, panelists received feedback on their ratings as compared to the ratings of the other panel members in their country, and were requested to give their opinion on the remaining 168 indicators. An overview of the scores in both rounds is attached as an annex to this book.

For the classification into valid and invalid indicators, use was made of the Rand Appropriateness method. In this method, a distinction is made between indicators that are considered as "face valid," "equivocal" or "invalid" (Brook 1986, Shekelle 1998). An indicator is considered as "face valid" when two conditions are met. First, at least 50 percent of the panelists in each panel must rate an indicator as useful, reflected in the ratings 7, 8 or 9; second, less than one third of the panelists in each panel must rate an indicator as not useful, reflected in the ratings 1, 2 or 3.

The classification of the indicators as invalid had to meet the same condition vice versa. Indicators were considered as invalid if at least half of the panelists had given this indicator a very low score (1 to 3) and less than one third had given it a very high score (7 to 9).

All other indicators were considered as "equivocal," referring to the ambiguity of the scores and the lack of consensus within and between the panels.

Results

Fifty-seven of the 60 panel members completed the questionnaires twice and, hence, completed both Delphi rounds. The panels reached consensus for over one third (37 percent) of the complete set (168 indicators); a total of 62 indicators were considered as useful and clear measures of practice management in primary care. Below, we will briefly outline how these indicators were rated.

Management of infrastructure

The following shows that there was agreement between the European panelists on the need to have good facilities in the practice, such as clean and well-maintained premises and a waiting room with a sufficient number of chairs. The quality of the drugs and the medical equipment available, however, were considered as even more relevant. In particular, emergency drugs and resuscitation equipment were considered indispensable; reception staff should be trained to recognize and to properly react to emergency matters. The contents of the doctor's (emergency) bag should be complete, with the drugs not being over expiry dates and stored as to preserve their quality.

With regard to non-medical equipment, there was consensus on the need for practices to have a computer and an Internet connection. Computers should be protected against inappropriate access by outsiders and have, for example, a firewall and a virus scanner. Probably, the confidential treatment of patients, but also a fear of a sudden and uncontrolled loss of patient data motivated the panelists to give these indicators a high score.

The following list shows indicators rated face valid in the domain "infrastructure" (indicators having the highest levels of consensus—8 or 9 without disagreement—appear in italics):

- Premises:
  - If the practice is on another floor than the ground level, there is a lift
  - The practice has a toilet with hand wash facilities for patients
  - There is sufficient seating in the waiting room
  - There is space for prams, buggies etc.
  - Patients find the practice clean
  - Patients find the practice well-maintained
- Medical equipment, including drugs:
  - The essential basic equipment is available
  - The essential emergency and resuscitation equipment is available
  - The practice has an up-to-date inventory list detailing which emergency drugs must always be available on-site
  - The essential emergency drugs are available
  - The practice has an up-to-date inventory list detailing what should be in the doctor's bag at all times
  - *The contents of the doctor's bag are complete*

  - The contents of the doctor's bag are not over their expiry dates
  - The practice has a refrigerator for medicines that need to be kept cool
  - The practice keeps all drugs safely stored (not accessible for children, patients)
  - Hand wash facilities are present in every consulting room and examination room
- Non-medical equipment:
  - The practice has at least one computer for staff
  - The practice has an Internet connection
  - *All computers are protected against inappropriate access (password, firewall, virus scanner)*
  - *The practice has a telephone system with sufficient inward and outward capacity*
- Accessibility and availability:
  - Patients of the practice think that they can contact the practice easily by telephone
  - *Clinical staff provide home visits for patients who are physically not able to travel to the practice*
  - Patients of the practice have the possibility to contact a general practitioner by telephone
  - The practice has an appointment system
  - *Patients contacting the practice out of hours have clear and rapid access to out of hours service*
  - *Reception staff have been trained to recognize and respond appropriately to urgent medical matters*
  - *A sign is displayed outside the practice, detailing the practice's opening hours and how to access after-hours care*

Examples of indicators rated equivocal or invalid by one or more panels:

- The practice has a separate emergency telephone line
- The minimum consultation duration for routine (non-urgent) appointments is 10 or more minutes
- The practice has a system for recalling patients for preventive care or early case detection procedures

Good accessibility of the practice and the general practitioner was deemed an important aspect of quality as well. There should be suffi-

cient telephone capacity when patients try to contact the practice, and patients should be able to contact the general practitioner directly by telephone. For patients who are physically not able to travel, home visits should be provided. Other indicators for a high quality organization were whether the practice had an appointment system, transparent opening hours for patients and proper arrangements for out-of-hours services.

No agreement was established on the need for separate telephone emergency lines and the optimal length of consultations. The lack of agreement on these indicators can be explained by variations in national contexts. Separate telephone emergency lines are particularly relevant in larger practices, more common in the UK and Netherlands. The optimal consultation length appeared to be affected by factors outside the health care system. Another quality issue where international consensus was lacking was the need for having preventive activities organized in the practice, for example a recall and follow-up system for patients with chronic illnesses, such as diabetes or high risk for a cardiovascular disease. In France, for example, laws prohibit the use of patient records without prior consent of patients, which makes a recall and follow-up system difficult.

Management of staff

The following list shows that the panels agreed on the importance of appropriate qualifications of clinical staff and clearly defined responsibilities within the teams. Apparently, they also valued an open atmosphere towards improving the quality of services, reflected in the recognition that all staff should be invited to team meetings and that the practice should have a policy that enables staff to offer suggestions to improve the practice. A pleasant working atmosphere in the practice was considered an important indicator of the quality of the organization. Remarkably, the labor security of staff was valued as very important: All staff should have signed contracts.

The following list shows indicators rated face valid in the domain "staff":

- Personnel:
  - *All practice staff (other than the general practitioner) have signed contracts with the practice*

  - All staff involved in clinical care have appropriate qualifications
- Team:
  - Responsibilities within the team are clearly defined
  - Responsibilities within the team are understood by team members
  - All staff are invited to participate in team meetings
- Working conditions:
  - Staff experience a pleasant working atmosphere
  - The practice has a policy which enables staff to offer suggestions for improving practice management

Examples of indicators rated equivocal or invalid by one or more panels:
- All staff have a written personal learning plan
- The practice evaluates team work in the organization
- The practice has had at least one "away day" last year

Panel members did not agree on the need to have personal learning plans for staff, or regular social events for the team such as an "away day." Formal procedures to monitor the workload and stress levels of practice team members were also not considered equally important by all panels.

Management of information

The panels had the opinion that a computerized medical record system adds to quality, and that the medical records should contain the problem and the diagnosis, the supporting data, the investigation or laboratory results and the prescriptions. In addition, checking repeat medications at an annual basis was considered as a relevant indicator of good quality care.

The panels disagreed, however, on the need to use disease registration codes such as ICPC codes. These are common in some countries such as the UK and the Netherlands, but rare in others (Switzerland, France). No consensus was reached on the need to make medical records available during out-of-hours services, probably for confidentiality reasons. This is in line with the consensus about other indicators related to a confidential treatment of information. Agreement

was reached on the importance of patient records' being stored inaccessible to outsiders, and about other patients not being able to overhear conversations between the doctor and the patient.

The following list shows indicators rated face valid in the domain "information":

- Clinical data/Customer relationship management/Recall:
  - The practice has a computerized medical record system
  - Each patient medical record contains:
    - Telephone number
    - Occupation
    - Family history
- For every encounter the following are recorded:
  - Reason why the patient came
  - A defined problem/diagnosis
  - Data supporting the defined problem/diagnosis
  - A treatment plan
  - If medication is prescribed, the length, the dose and the administration of the treatment
  - A note on what the patient was told
- The medical record contains laboratory and investigation results
- All patients receiving regular/repeat medications are reviewed at least annually by the general practitioner
- The computer is used for
  - Patient medical registration
  - Referral letters
- Confidentiality and privacy:
  - Medical records, and other files containing patient information, are not stored or left visible in areas where members of the public have unrestricted access
  - The conversation at the reception desk cannot be heard by other patients
  - The conversation in the consultation room cannot be heard by other patients
- System for communication/sharing information with colleagues and other health care providers:
  - The practice receives information about contacts with patients by out-of-hours general practitioners within 24 hours
  - The practice has an up-to-date directory of local health care providers

  - Copies of referral letters are kept in the patient's record
  - Referral letters contain:
    - Background information and history
    - Problem
    - Key examination findings
    - Current treatment
    - Reason for referral
- System to process information:
  - The practice has procedures that ensure incoming clinical information is seen by the patient's general practitioner before being filed in the patient's medical record
  - The practice has procedures that ensure incoming information (letters, test results) is filed in the appropriate medical record
- Information for/from the patient about the practice, practice policy and local environment:
  - The practice information sheet contains:
    - Names of the general practitioners working in the practice
    - Practice address and phone numbers
    - Consulting hours

Examples of indicators rated equivocal or invalid by one or more panels:

- The practice has a disease register (e.g., International Classification Of Primary Care, read codes)
- The out-of-hours general practitioner has access to medical records
- The practice has a written protocol for reviewing repeat prescribing data

The panels also rated several aspects of the management and processing of outgoing and incoming data important. There should be clear procedures to check whether the practice receives data from outside the practice, care should be taken that the general practitioner has seen this information, and that it is filed properly in the patient record. In addition, referral letters should contain matters such as the problem, the current treatment and the reasons for referral.

Panels agreed that there should be a practice information leaflet containing relevant information, such as the names of the general practitioners and the address, telephone number and the opening hours of the practice.

Management of finances

Financial leadership and annual financial overviews were considered important quality criteria for the quality of financial management. Perhaps the most important issue was whether the practice has an insurance to cover the liability of general practitioners and practice staff.

The following list shows indicators rated face valid in the domain "finance":

- Financial leadership and responsibilities:
  - The responsibility for financial management in the practice is clearly defined
  - *Every general practitioner is insured to cover liability*
  - *Every member of the clinical staff is insured to cover liability*
- Annual report:
  - The practice produces an annual financial report, which includes all income and expenditure

Examples of indicators rated equivocal or invalid by one or more panels:

- The practice produces an annual financial plan which includes expected income, expenditures and investments
- The practice keeps full records of finances, including income, expenditures etc.
- The practice has a written protocol for the settlement of accounts with patients

Policy on quality and safety

The importance attached to quality and safety procedures was particularly related to the risk of contamination, such as having a sterilizer or autoclave in the practice, having containers for used equipment, waste and other materials, and using protective gear such as gloves. In addition, panels agreed that quality improvement activities should be the joint responsibility of all staff and that the practice has a no-smoking policy.

Remarkably, there was no agreement on a critical incident registration and analyses, on clinical audits and on various indicators on the

improvement of patient involvement in the practice, such as patient participation groups, suggestion boxes and complaint procedures for patients.

The following list shows indicators rated face valid in the domain "quality" and "safety":

- Quality policy:
  - *All staff are involved in quality improvement*
- Safety of the staff and patients:
  - *Smoking is not allowed in the practice*
  - *The practice has a sterilizer or an autoclave*
  - *The practice has a container for used equipment*
  - The practice has a leak-proof container for infectious or hazardous waste
  - *The practice has a container for disposal of sharps*
  - The practice has protective equipment when dealing with blood/fluids (gloves, goggles, apron)
  - The practice has fire extinguishers

Examples of indicators rated equivocal or invalid by one or more panels:

- The practice has undertaken at least one clinical audit in the last year
- The practice has a critical incident register
- The practice has a written patient complaint procedure

National contexts differed again here, with the largest contrast seen between the UK and France. In the quality and safety domain, the UK panel rated 25 indicators relevant as compared to only 10 indicators by the French panel. This difference might be explained partially by differences in national health policies, as quality checks are more common in the UK. Meeting these criteria is now arranged by the contracts between general practitioners and the National Health Service in the UK.

Conclusion

The consensus approach applied in the EPA project showed that it was possible to develop an international set of quality indicators—62

in total—on which all panels in six different countries agreed. Within all five domains (infrastructure, people, information, finances and quality and safety), panels agreed on a number of indicators that reflect the quality of the organization of the practices in that field.

National panels, however, varied in the number and type of indicators valued as relevant for quality. In the Netherlands and the UK, for example, agreement was reached on a larger number of indicators than in the French and German panels. Part of these differences can be explained by the fact that group practices and health centers are more common in these first two countries; for instance, larger practices need to have indicators that measure the quality of human resource management. These variations probably also reflect differences in national traditions, policies, contexts and laws (Böcken 2001); examples have been given in the previous paragraphs.

Some disagreement may also reflect the position of general practitioners within the health care system. Acting as gatekeepers strengthens the position of general practitioners but puts also higher demands on general practitioners to make the quality of the services more transparent.

Low agreement scores on some indicators do not always reflect a lack of validity. For instance, in most panels, all indicators including the term "written protocols" and "written procedures" were discarded because written materials do not provide any guarantee for implementation in daily practice. Practices often solve problems or make arrangements by direct communication with staff and do not find it necessary to have these confirmed written documents.

In some countries panelists rated some indicators as not very useful because the procedures were so generally accepted that they would not discriminate between practices. In the Netherlands, for example, the need for medical registration received a relatively low score.

Despite these national differences and variations, the overall level of agreement between the panel members in various European countries was high. We concluded that it is possible to have a common set of quality indicators on practice management for European countries despite differences in health care systems. Apparently, there are no insurmountable barriers to developing cross-country indicators as well as quality assessment procedures that enable cross-country comparisons.

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The EPA Pilot: Practice Management in Primary Care in Nine Countries

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In this chapter we present the results of a pilot study in about 270 practices in nine countries to check the feasibility, reliability and validity of the set of indicators for the management of primary care. To measure these indicators, we developed a tool, which included a practice visit and different instruments (see "Overview").

An important step in the developmental process of a new assessment tool is testing it in normal practice. By performing a pilot test of our EPA tool in a limited group of practices in different countries, we hoped that the assessment instrument would allow us to detect the international variations in strengths and weaknesses of general practices. We also needed the results to check the reliability (reproducibility) and validity (Do the indicators measure what they need to measure?) of the indicators. An overview of the results and differences between countries and between single-handed and group practices/ health centers is presented in this chapter.

Methods

The Delphi procedure with expert panels in six countries resulted in a set of indicators that were rated relevant (face valid) by all panels. Based on this set, specific instruments were developed by the EPA expert group to measure the indicators. Use was made of existing validated scales, such as the Work Satisfaction Scale (Warr, Cook and Wall 1979) where appropriate.

Some indicators could be easily converted into questions, for example whether the practice has an up-to-date inventory list detailing what should be in the doctor's bags. Often, it took more than one question to arrive at a concrete measurement of an indicator. For ex-

ample, we used six questions about the availability of specific drugs in the doctor's bag and combined them to the indicator "the contents of the doctor's bag are complete." Consistency of the data for such indicators was determined by factor analyses and reliability analyses (Cronbach's alpha).

Some indicators, although rated valid in the Delphi, could not be included in the pilot. For instance, we did not include indicators on medical equipment, since we were not able to reach consensus about essential equipment needed in primary care practices.

Secondly, for some indicators it was not possible to find valid measuring methods. To measure the detailed content of referral letters or the medical record, for example, it would be necessary to read and check these. This would cost general practitioners or medical staff too much time, and we were not able to get approval in all countries for an external person performing this task. Therefore, a limited number of questions about medical registration were included in the interview with the main general practitioner or practice manager.

Finally, we were not able to develop appropriate questions for some other indicators, such as "The conversation in the consultation room cannot be heard by other patients," or "The practice has a telephone system with sufficient inward and outward capacity." We added questions for some of the indicators rated equivocal, e.g., on consultation length, clinical incident registration and patient involvement, as these were considered very important by the partners.

The 23-item EUROPEP patient questionnaire was also included in the dimension "patient involvement." The answers on the EUROPEP-instrument were reduced to two scales; one for patient evaluation of the general practitioner and one for patient evaluation of the practice organization (Grol 2000). The division of the questions over the different instruments has been outlined in the chapter "EPA: An Overview." The same is true for the sampling of the practices.

We first computed the mean scores on all indicators for all practices in all countries. In order to study international similarities and differences, we compared the figures of the eight participating countries. Since we expected that practice management would differ between single-handed and group practices or health centers, we analyzed differences between these types of practices as well. Any such differences found may be contributed to the construct validity of the set of indicators.

Results

The pilot ran from November 2003 to March 2004. All nine countries included between 28 and 33 practices (table 1).

Table 1: Sample of the EPA pilot

	Practices	Doctors questioned (mean)	Staff questioned (mean)	Patients questioned (mean)
B	31	1.8	1.7	32
F	29	3.5	2.7	30
D	32	1.7	4.9	68
NL	32	2.3	4.0	28
CH	28	2.3	4.4	40
UK	27	3.5	11.3	30
Sl	31	2.6	4.9	30
A	33	1.1	2.8	66
IS	30	3.0	4.7	28

We aimed for an equal number of single-handed, duo and group practices, and an equal number of practices in rural and in urban areas (table 2).

Table 2: Practice demographics of the sample (percentages for each country)

	Single-handed practice (one general practitioner)		Duo practice (two general practitioners)		Group practice (three or more general practitioners)	
	Rural	Urban	Rural	Urban	Rural	Urban
B	28	10	31	21	3	7
F	15	15	0	15	4	50
D	26	13	26	23	0	13
NL	19	23	16	16	13	13
CH	7	29	4	18	11	32
UK	0	11	0	22	11	56
SLO	16	16	16	16	19	16
A	52	42	3	0	0	3
IS	23	3	0	7	0	67

Only Slovenia and the Netherlands composed such a balanced sample. Belgium had few group practices, which is consistent with the national situation of mainly single-handed practices. The French sample did not include duo practices in rural areas, only one rural group practice and 50 percent urban group practices, which is at odds with the fact that group practices are in the minority in France. The German sample had no group practices in rural areas and only a few in urban areas. The UK and Israel had many urban group practices in the sample. Austria did only recruit one duo and one group practice, which is also in line with the national situation.

The mean number of general practitioners questioned per practice varied from 1 (Austria) to 3.5 (UK) and the mean number of staff from 1.6 (Belgium) to 10.9 (UK). Most countries had samples of about 30 patients who completed the patient questionnaire, except for Germany, Switzerland and Austria, who questioned 69, 47 and 65 patients, respectively, per practice (table 1).

Management of infrastructure

The premises in UK, Slovenia, Israel and Belgium proved to be well accessible for wheel chairs, while in the other countries the situation may be less positive.

The drugs in the doctor's bags and in stock were considered very important by the expert panels. Single-handed practices showed to have more drugs in their doctor's bags and in stock than larger practices (table 3), and drugs were less often over expiry dates.

Doctor's bags were complete in Switzerland, Belgium, Slovenia, Austria and the Netherlands. The first two countries have a relatively large number of home visits.

Slovenian primary care is responsible for emergency care and there is a policy for a uniform content of the doctor's bag. In the UK, France, and Germany, the doctor's bags were not very complete and in France, a large part of the drugs were over the expiry date.

Table 3: Results of the EPA pilot: Infrastructure (percentages)

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
N	31	29	32	32	28	27	31	33	30	273	107	163
1. INFRASTRUCTURE												
1.1 Premises												
– *The practice is easily accessible for patients in wheelchairs (3 items; α=0.65)*	83	59	68	69	77	93	87	63	84	75	70	79
1.2 Medical equipment, including drugs												
– *Core drugs are available in the emergency bags (6 items; α=0.77)*	85	51	65	81	90	41	85	81	63	73	79	69
– *Core drugs in the emergency bags are not over expiry date (6 items; α=0.76)*	74	52	80	70	84	76	88	90	75	77	84	72
– *Core drugs are in stock (12 items; α=0.89)*	84	52	76	67	55	56	84	91	77	73	74	72
– *Core drugs are not over expiry dates (α=0.95)*	83	77	91	89	84	92	95	99	92	90	94	87
– *There are procedures for updating and supplying stock* (3 items; α=0.53)	57	32	79	55	57	66	94	77	54	64	68	61
– *There is a functioning refrigerator for maintaining a "cold chain" for drugs*	100	79	97	97	100	100	100	100	87	97	94	99
– *If there is a refrigerator, it is equipped with a maximum/minimum thermometer*	14	39	23	31	32	87	84	18	80	46	29	56

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
1.3 Non-medical equipment												
– *Computers have a username and password*	100	77	81	97	89	100	97	84	100	92	90	93
– *Computers have a virus scan and firewall (2 items)*	73	40	59	48	89	96	48	77	61	66	56	72
1.4 Accessibility and availability												
– *The practice has an explicit procedure for accepting non-emergency home visits*	94	90	94	94	43	96	100	94	63	86	83	87
– *The practice has a clear out-of-hours phone message*	90	86	84	84	96	85	26	88	70	79	79	79
– *Booking interval for routine appointments in minutes*	17	18	12	10	20	10	14	14	11	14	14	14
– *There is, in the absence of a doctor, at least one staff member present who is trained to recognize and respond appropriately to urgent medical matters*	16	14	81	83	75	93	90	85	90	69	64	72
– *Outside the practice, there is a sign with opening hours and instruction for after-hours access*	55	10	13	31	11	22	55	58	70	37	39	35

Table 4: Results of the EPA pilot: Staff (percentages)

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
2. STAFF												
2.1 Personnel												
– *Staff have a signed contract*	58	62	75	76	91	93	96	85	90	80	81	80
– *The practice checks certificates when a new employee is hired*	35	65	34	77	44	85	100	67	77	62	57	66
2.2 Team												
– *Responsibilities within the team are clearly defined (4 items; α=0.63)*	84	67	73	85	89	69	67	93	75	78	84	75
2.4 Working conditions												
– *GPs are satisfied with their work (10 items; α=0.85)*	77	78	64	86	88	76	67	79	78	77	75	78
– *Staff are satisfied with their work (10 items; α=0.80)*	87	78	78	87	89	75	67	91	23	75	80	72

The percentages of core drugs in stock varied from 52 percent (France) to 91 percent (Austria), most of these being within expiry dates.

Although most practices did have a refrigerator for maintaining a "cold chain" for drugs, they were often not equipped with a thermometer, with the exception of the UK, Slovenia and Israel.

With regard to non-medical equipment, IT security is excellent in the UK and Switzerland; in all other countries, at least one quarter of the practices do not have a virus scanner and a firewall.

Accessibility and availability were also considered very important by the expert panels. Almost all practices, except for Slovenia (26 percent) and Israel (70 percent), did have a clear message on the answering machine.

The booking interval for routine appointments varied from 10 minutes (Netherlands) to 20 minutes (Switzerland). There were several factors that attribute to this difference between countries. In the Netherlands and the UK, where booking intervals appeared shortest, practices have a patient list, which means that it is less easy for patients to move from one doctor to another. Besides, at the time of data collection, general practitioners were mainly paid by capitation, which may have contributed to shorter consultation times (Deveugele 2002). General practitioners in Germany have many consultations per week, which also makes it more likely that the time spent per encounter is shorter.

In the countries with longer booking intervals such as Belgium, France, Austria, Slovenia and Switzerland, patients can choose their doctor (general practitioner or specialist) each time they need one. This may influence consultation length, because general practitioners see many patients for the first time (which costs more time) and they have to be consumer-friendly in order to retain their patients. Given these differences between health care systems, it will be difficult to establish consensus on optimal consultation length.

Although all expert panels agreed that it is important that staff be trained to respond adequately to urgent clinical matters, there are only a few practices in Belgium and in France where such a staff member is available in the absence of a doctor. This can partly be explained by the fact that in both countries, single-handed practices often do not have any staff at all.

Management of staff

In the UK, Slovenia, Switzerland, Israel and Austria, most staff members have a signed contract, while in Belgium, France, Germany and the Netherlands, this is less common. Although we found that all expert panels valued appropriate qualifications, certificates of new employees are often not checked, particularly not in Germany, Belgium and Switzerland. Although many staff members have the feeling that responsibilities within the team are clearly defined, this is not so clearly the case in France, Slovenia, Israel and Germany.

Fortunately, most general practitioners experience a high level of work satisfaction, particularly in Switzerland and the Netherlands. With regard to staff, we found the highest satisfaction levels in Austria, Switzerland, Belgium and the Netherlands, and a very low satisfaction level in Israel. Staffs in single-handed practices are more satisfied with their jobs than staff in larger practices (table 4).

Management of information

With regard to most aspects of information management, larger practices score higher than single-handed practices. In all participating countries, medical record keeping seems to be good, although detailed data is often lacking. Regarding confidentiality, most practices keep medical records in areas that are not accessible by patients without permission. Improvement seems to be possible in France and Switzerland. As far as the management of incoming and outgoing data is concerned, general practitioners in Austria, France, Germany, Slovenia and Israel do not receive information about out-of-hours care the next day, while France scores relatively low on procedures for managing external patient data.

In the UK and the Netherlands, countries where practices have limited opening hours, most practices have a patient information leaflet that contains relevant information. Such leaflets are lacking in half or more of the practices in the other countries. Larger practices more often have them than single-handed practices.

Table 5: Results of the EPA pilot: Information management (percentages)

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
3. INFORMATION												
3.1 Clinical data/CRM/recall												
– *The medical record contains relevant information (problem list, actual medication, intolerances) (3 items; α=0.43)*	99	100	98	95	91	100	99	92	100	97	95	98
– *The medical record contains a patient's smoking status*	77	69	56	53	79	100	94	67	90	76	70	79
3.2 Confidentiality												
– *Medical records, and other files containing patient information, are not stored or left visible in areas to which patients have unrestricted access (2 items)*	87	41	77	87	50	96	81	94	77	77	82	74
3.3 System for communication/sharing information with colleagues and other health care providers												
– *Information about out-of-hours care is available to the GP the same or the next day*	84	38	41	84	79	100	45	36	47	61	56	64
– *The practice has an up-to-date directory of local health care providers*	61	86	78	91	64	67	97	76	87	79	80	78
3.4 System to process information												
– *The practice has a procedure for managing external patient data (5 items; α=0.55)*	80	51	85	85	80	96	85	72	75	79	76	80
3.5 Information for/from patients about the practice, practice policy and local environment												
– *The practice has a practice information sheet with relevant information (5 items; α=0.65)*	41	42	55	88	48	87	48	27	37	52	39	60

Table 6: Results of the EPA pilot: Finance (percentages)

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
4. FINANCE												
4.1 Financial planning												
– *The practice produces an annual financial plan that includes expected income and expenditures*	36	41	47	16	29	37	90	33	37	41	31	47
4.3 Financial leadership and responsibilities												
– *Responsibilities for financial management are clearly defined*	74	79	97	81	96	93	100	88	47	84	80	86
4.4 Annual report												
– *The practice keeps a full records of its finances*	100	99	90	96	96	99	100	69	61	91	86	94

According to the expert panels, having a practice information sheet may contribute to a good service for patients in all practices in all countries.

Management of finances

Only in Slovenia do most practices produce an annual financial plan. In all other countries, this is not part of the yearly routine. Single-handed practices in particular may improve on this aspect. Nevertheless, in all countries the responsibilities for financial management seem to be clearly defined. Also, keeping full financial records is common, with the exception of Israel and Austria.

Quality and safety

Setting targets for quality improvement is generally accepted in Israel, the UK, Slovenia and Belgium. In Switzerland, France and Austria only half of the practices undertook this task in the past year. In the UK, most practices have a critical incident register and in Israel 50 percent; in all other countries, this is routinely performed by only a (very) small part of the practices.

The large majority of practices, with the exception of Switzerland, have explicit procedures for infection control. Nevertheless, almost a third of the practices in the Netherlands and France have examination rooms that are not so well-equipped for infection control.

Despite the fact that patient involvement is regarded as an important issue, the practices in our study did not score very high on this dimension. For instance, most practices do not have a suggestion box, and only in the UK, Slovenia, the Netherlands and Israel, a larger part of the practices has patient complaint procedure. Despite the availability of various instruments, a survey of patient satisfaction seems to be routine only in the UK and Israel. In most other countries, only a minority of the practices had had experience with such an evaluation.

We included the EUROPEP instrument for evaluation of practice by patients in our study. In all countries, patients gave a very positive evaluation of their general practitioner and practice. In general, the evaluation of the organization of care was less positive than of the

general practitioner, particularly in the UK, Israel, the Netherlands and France. Single-handed practices received more positive evaluations than larger practices.

Discussion

The tool for measuring practice management in general practice with the set of indicators selected by expert panels appeared to be acceptable and feasible. We were able to measure the indicators in a large number of different types of practices in different countries without major problems. The results showed differences between practices and countries, which contributes to the discriminant validity of the indicators.

The work involved in the evaluation was experienced as acceptable by most practices. An interesting finding was the difference in scores between single-handed and larger practices. Our results confirm earlier findings that larger practices are better organized in a number of ways, but that patients prefer single-handed practices (van den Hombergh 2004). This higher score reflects the tension between the needs of the patient and the interests and priorities of the professional and his/her estimate of what serves the interest of the patient best. The advantages of single-handed practices could be a challenge for group practices to give more personal, continuous care and to put the patient perspective before organizational considerations.

We found that practices in the UK have good management with respect to staff, information management, and quality and safety. This is as expected, since the UK has mostly large practices and health centers and all practices have a practice manager. Besides, practices are now motivated to have a good practice management, as approximately 20 percent of all indicators in the new NHS contract are related to organizational and management aspects of care. Nevertheless, patients were less positive about the practices in the UK. This may be due to the long time it takes to get an appointment for non-urgent matters, by the fact that patients often do not get to see the doctor of their preference, but may also be a statistical issue because the sample had a strong emphasis on larger practices.

Slovenia also proved to have a good practice management, particularly with regard to infrastructure, financial management, and quality

and safety, which was also reflected in the positive evaluations of patients. Within the last decade, practices have probably developed enormously with respect to the organization of primary care. The work satisfaction of general practitioners and staff warrants attention. The low scores might be caused by the low payment.

Austria and Belgium score above average, compared to the participating countries, on indicators in the infrastructure domain. In both countries, patients are very satisfied with their general practitioners and with the practice, and general practitioners report a positive working atmosphere. If the trend towards development of larger practices also reaches these countries, they might be able to combine a well-organized practice with a high patient satisfaction.

Switzerland and the Netherlands both have good staff management; therefore it is no surprise that staff and general practitioners alike experience a high level of work satisfaction. Patients in the Netherlands have some criticism on the organization of services in their practice, which might be caused by the new systems of out-of-hour's care still under development. The Netherlands and Switzerland might also pay more attention to their quality and safety management.

In the French practices taking part in the pilot, practice management seems to be a bit less well-developed compared to practices in some of the other participating countries. The work satisfaction of general practitioners and staff was relatively low, and patients did not approve of some of the aspects of the practice organization.

Germany might improve on infrastructure, staff and information management and on working conditions to raise the satisfaction of general practitioners and staff.

In Israel, work satisfaction of staff needs particular attention.

There are some important aspects that need attention in almost all countries. Only in one country is financial planning common. The same is true of the registration of critical incidents and patient participation. In all countries, at least 10 percent of the drugs in the doctor's bag were over the expiry date, which implies that there is a need for a better system for updating and checking the bags.

Table 7: Results of the EPA pilot: Quality and safety (percentages)

	B	F	D	NL	CH	UK	SLO	A	IS	Total	Single-handed	Duo and group
5. QUALITY AND SAFETY												
5.1 Quality policy												
– *The practice set targets for quality improvement in the last year*	90	55	69	69	50	82	87	55	93	72	66	76
– *The practice has a critical incident register*	26	3	19	28	25	89	36	18	53	32	26	36
5.3 Safety of the staff and patients												
– *There is a "no smoking" sign visible in the reception area*	10	17	100	22	7	44	100	33	50	32	32	31
– *The practice has explicit procedures for infection control (5 items; α=0.80)*	97	94	92	80	31	99	100	86	92	83	82	84
– *Consultation/examination rooms are equipped with respect to infection control (3 items; α=0.47)*	74	62	87	64	82	100	100	90	99	84	83	85
5.4 Patient perspective												
– *The practice has a suggestion box for patients in a clearly visible spot (2 items; α=0.80)*	3	2	9	9	9	31	53	21	31	17	16	17
– *The practice has undertaken a survey of patient satisfaction (before EPA)*	23	3	39	38	64	85	53	24	73	44	32	52
– *The practice has a patient complaint procedure which is available on request*	3	3	25	75	25	100	77	55	64	47	42	51
– *Patients evaluate the GP as positive (Europep 17 items; α=0.98)*	91	85	84	85	90	80	90	93	83	87	89	85
– *Patients evaluate the practice organization as positive (Europep 6 items; α=0.90)*	84	73	83	72	90	67	87	91	68	80	86	75

Limitations

This pilot has some restrictions. Firstly, for our pilot study we used convenience samples of 30 practices per country. These practices were selected by the project partners, and are therefore probably not representative of the respective national situation. In France, for example, only group practices took part in our study, while in reality they are a minority.

Most of the practices in our study were already interested and active in quality improvement. Therefore, the results are probably too positive, and must be interpreted with caution. Despite this positive bias, we were able to find plausible variations between practices and countries, underpinning the construct validity of the instrument and indicators. The results can also be used to give valuable feedback to individual practices.

Secondly, some of the chapters and dimensions, for instance "management of finances," the equipment in the practice and the medical recording, were not very elaborated as far as the indicators are concerned. These aspects need further development in the next stage of the project.

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The Process of Practice Assessment: Experiences from Nine Countries

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Introduction

Organizations and the quality of their management are inherently difficult to assess. Like all measurements, the assessment depends on the collection of information, typically using a set of instruments. However, when the object to be measured is complex, multidimensional and composed of both structures and processes, intersected by personalities embedded in different types of cultures, it becomes a correspondingly difficult task. The approach taken by EPA mirrors this pattern of taking different perspectives, using observation, interviews and survey methods.

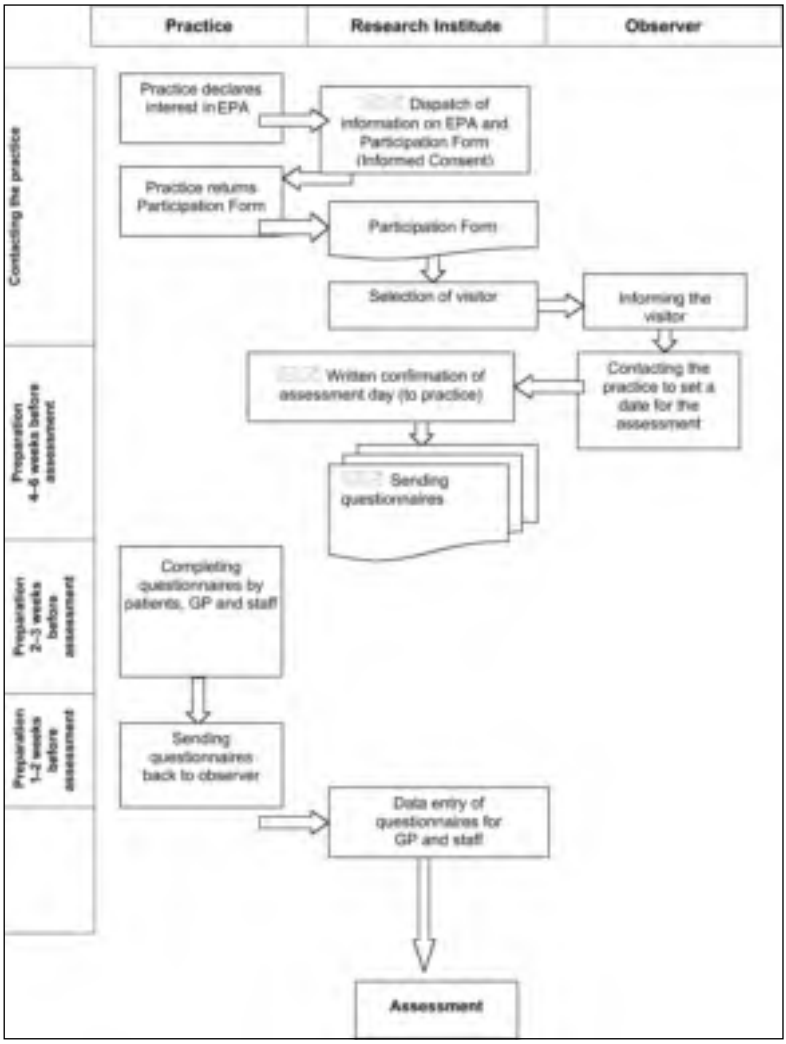
While the previous chapter focused on the outcome, this chapter focuses on the process of the assessment procedure. It describes what a typical assessment procedure looks like and what preparatory activities are required from the observer and the practice. We will explain the approach taken, the obstacles met during the process of implementation and the lessons that we learnt from that for the future development of the procedure. Text boxes will provide an impression of how practices and observers experienced the assessment.

Based on assessments in more than 270 general practices in nine countries (Austria, Belgium, France, Germany, Israel, Netherlands, Slovenia, Switzerland and the UK), conclusions will be drawn on the feasibility and the acceptability of the EPA in countries in the context of very different health care systems.

Assessment procedure

The assessment day was preceded by a preparatory period of several weeks, described in more detail below.

Box 1: Assessment procedure



The first step was to contact the practice, to explain the purpose of the assessment and to send the standardized introductory letters. In some countries, like Germany, signed consent was requested.

Having received the practice's consent to participate, the observer made contact by telephone to set an assessment date and to collect the list of staff members and their job titles. Afterwards, the standardized confirmation letter of the date of assessment was sent with questionnaires for the staff, the individual doctors and the practice manager, as well as the patient questionnaires (n=50).

The completed questionnaires were entered in a spreadsheet program. In some countries, in particular Germany, the observer entered the data before the assessment day and made a summary for a feedback session.

The assessment took three to six hours total for the observer, depending on whether or not a "Maturity Matrix" assessment was conducted. In the morning, the observation checklist was completed, after which an interview took place with the general practitioner with management responsibilities (or the practice manager). Figure 2 shows the schedule of the assessment day. The assessment finished with a feedback session on the outcomes of the assessment procedure.

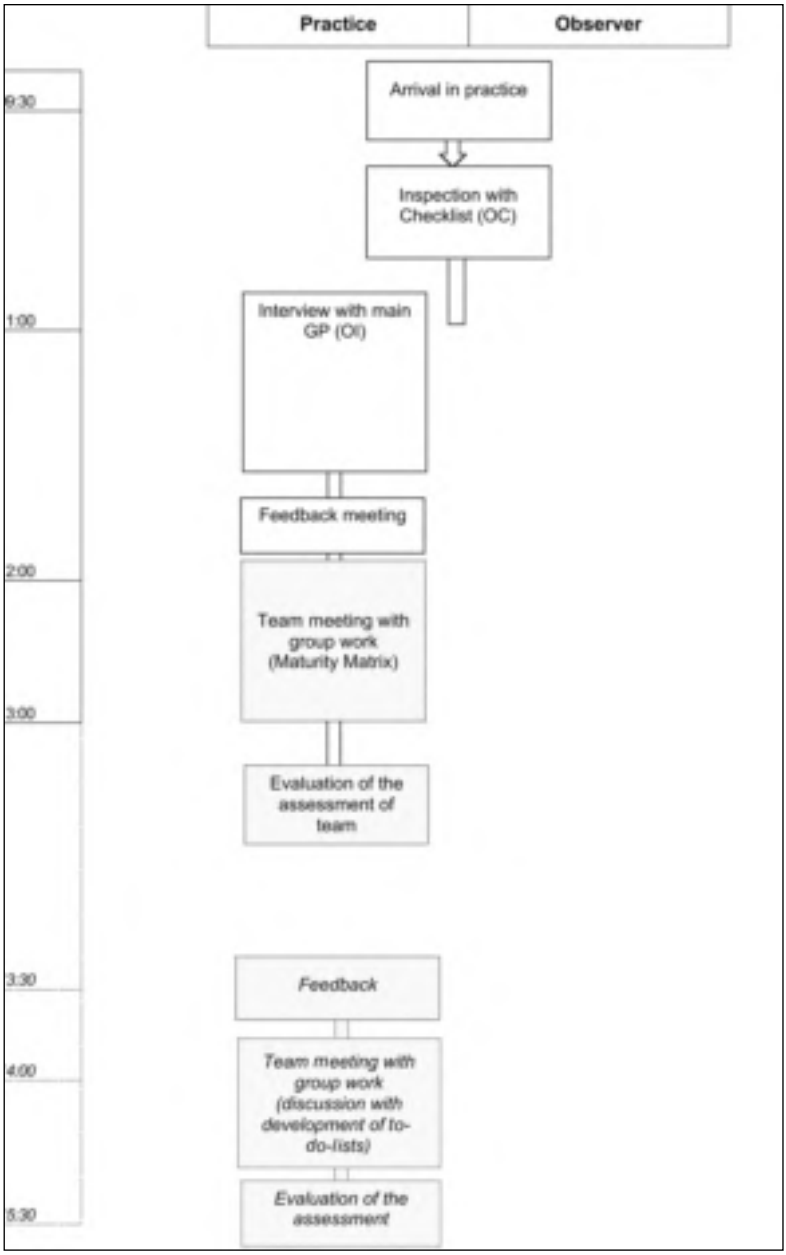
Since it was a pilot study, for most countries national and international reference figures were not available yet, and the content of the feedback was left to the observer. Feedback, however, is considered as a crucial element of quality improvement. The following chapter describes in detail various approaches for giving effective feedback.

Observers

The observers were recruited from different disciplines and backgrounds. Some countries made use of social scientists (Germany and UK), whereas others employed practice assistants or nurses (Belgium, Israel and the Netherlands), general practitioners (Slovenia and Switzerland) or medical students (France and Israel).

There were no specific difficulties related to the types of observers: All appeared to be capable of completing the assessment. There were no indications that the background of the observer affected the outcomes. One important reason for this is that the procedure was highly

Box 2: Assessment day (gray boxes are optional)



standardized. The most important requirement for observers is that they have received an adequate training in the use of the instruments, be familiar with practice procedures and systems in primary care, and have good interpersonal skills.

Particularly when feedback is provided and further assistance is required with quality improvement projects in the practice, the expertise and interpersonal skills of observers are crucial. The facilitation of the Maturity Matrix also requires these types of skills. In France, for example, the medical students would not facilitate the Maturity Matrix and felt not confident about giving feedback to general practitioners. Supporting general practices with quality improvement projects requires additional training for observers.

Obstacles during the use of EPA

Contacting the practice

There was a good level of practice cooperation during the pilot study, which was partially due to the voluntary nature of participation. For a number of practices, however, the observers still needed to overcome suspicion. Practice assessment is a relatively novel proposition in most countries and some doctors showed resistance to the idea.

The context for this varied greatly between countries. In the UK, for example, assessment was a sensitive issue because of a recent (2004) implementation of new contracts in which reimbursements were partially related to assessments on clinical performance indicators. In France, the novelty sometimes caused a lack of motivation among some doctors. In Israel, the major obstacle was that the management of health centers felt threatened by the evaluative approach.

Because of such resistance, observers in the UK and France preferred to make face-to-face contact with the practice first in order to explain the process in detail and gain cooperation. In Israel, it appeared easier to gain access when the manager of the health center was approached first for permission and had agreed to participate. Observers also received strict instructions to treat the staff with utmost respect and politeness.

In Germany, practices were asked to send informed consent to the observer before the assessment procedure would start. Signed in-

formed consent could be considered as best practice for this procedure, in particular if participation is related to the accreditation or certification of the practice.

Sometimes the official support by national bodies can be supportive as well. In Israel, the endorsement of the regional and national HMO Health Services facilitated cooperation to a large extent.

Lessons for implementation
- It is important to have a good information package that states explicitly what practices can expect and what time investment is required as preparation for the assessment and at the assessment day itself.
- It could be considered as good practice to request signed consent from practices.

Preparation for assessment day

Practice profile

In order to know the size and type of practice, and to know the exact number of required staff questionnaires, each practice was contacted by telephone in order to obtain the names and job titles of staff members. This approach appeared labor-intensive. In larger practices, it was often difficult to locate an individual who knew all relevant details about all staff, so that several calls were necessary. This also had the potential to cause irritation, as it disturbed practices during busy consultation hours.

Lessons for implementation
- Practice profiles should be obtained by using a separate form that can be faxed or e-mailed to the practice and completed by someone with administrative responsibilities.

Staff questionnaires

Staff questionnaires were usually completed well. Two issues need more attention: ensuring confidentiality for staff members and obtaining a sufficient response rate. Confidentiality is crucial for receiving valid and reliable evaluations of the working conditions by staff. In some countries, such as the UK and France, it was arranged that a general practitioner or the practice manager collected the questionnaires and sent them back to the observer. This clearly had the potential to bias the completion of the questionnaires.

Different approaches were used to obtain a sufficient response rate. In Slovenia, questionnaires were distributed along with an information letter explaining EPA and the assessment. In France, observers took blank questionnaires along at the assessment day, encouraging those who had not yet completed them to do so. In the Netherlands and Germany, practices were reminded by telephone, and sometimes the assessment date was postponed several times until there was a sufficient response rate. Reminders to staff by telephone, however, were not considered acceptable in some countries, as it was reported to irritate the practice. In the UK, for example, ethical committees would not support survey processes that used a system with more than one reminder.

Lessons for implementation

- Staff questionnaires should be anonymous and be distributed with an information letter explaining the EPA assessment procedure and the confidential treatment of the questionnaires and stressing the importance of a timely response.
- Questionnaires should be collected in sealed envelopes by one staff member to be returned to the observer.
- A response rate of 100 percent often is not feasible.

Patient questionnaires

If we are to draw comparisons between patient samples in different countries, it is important that the method for recruiting the respondents is as consistent as possible. The agreed procedure was to issue

questionnaires to consecutive people attending the practice before the consultation, until 35 questionnaires had been completed. During the pilot, various approaches were used, varying from a distribution by the practice assistant in the waiting room and leaving them in a sealed box at the entrance (Netherlands), to sending the questionnaires to patients' homes and reminding them if they did not respond (Switzerland). With regard to the distribution by assistants or receptionists, selectivity may occur when there is no fixed procedure.

In some countries, patient questionnaires need to be translated into several languages. In Israel, for example, the questionnaires were translated only into Hebrew, thus excluding a large minority of patients speaking only Arab or Russian. An unsolved issue is that those with low reading ability or vision problems cannot use written questionnaires.

Lessons for implementation

- A fixed procedure for patient evaluations is needed in order to get representative and reliable answers and to be able to compare the outcome of individual practices with other practices.
- The preferred procedure is to issue anonymous questionnaires to consecutive patients visiting the surgery, starting on Tuesday morning.
- Patients should be requested to complete the questionnaire before the consultation and leave it in a sealed envelope in a box until 50 completed questionnaires are in the box.

Assessment day

Observer's checklist

As a rule, the checklists did not cause any significant difficulty. The main difficulty encountered was the obtrusiveness of some of the items and questions, with concerns in particular being raised about the "doctor's bag" or emergency bag.

The term "doctor's bag" caused confusion because of its overlap with the "emergency bag," as it is clear that differing types of "med-

ical bags" are emerging as arrangements for "on-call duties" change. In addition, in some countries doctors felt it was obtrusive to request a check of its contents. Some doctors considered the bags as organizational items, whereas others considered these as "personal" items that require a degree of privacy, some even compared it to a woman's handbag. For similar reasons, some general practitioners in France felt that assessing the consultation rooms of colleagues in their absence without their explicit permission would violate their privacy. Proposed solutions were to have the bags checked in the presence of the doctors and to ask for permission to check the consultation rooms timely and in advance (not all doctors might be in at the assessment day).

It was neither considered as useful to send a list to the practice in advance with the items to be checked, as doctors would prepare themselves and bias the assessment, nor deemed useful to rely on self-reports by doctors with regard to the items to be checked by the observer.

A clear example of the impact of national contexts was the interpretation of "emergency drugs" in Israel. The Israeli observers understood emergency drugs as medication meant for a mass terrorist attack.

Lessons for implementation

- Observers need to take into account that doctors' bags, emergency bags and consultation rooms might be considered as private and thus need permission for being checked.
- The term "doctor's bag" should be replaced by the concept of "emergency bag." Primary-care organizations would be expected to have a fully equipped bag for emergencies, either for each doctor (personal responsibility) or for the practice (organizational responsibility).
- For the content of the emergency bag, a system should be in place to ensure that the equipment and drugs are appropriate and up to date.

Interview

The interviews with a general practitioner with management responsibilities or practice manager usually went well, with some doctors reporting that they detected areas for improvement of their organization in the course of the interview because of the items that were discussed. Two issues, however, determine whether the interview can be completed successfully.

First, the time needed for the interview (30 to 45 minutes) was sometimes underestimated, with disturbances occurring when the interview was held with a general practitioner during consultation hours. Second, it appeared that one person was often unable to answer all questions. For that reason, the Belgian observers conducted the interview with more than one physician. The length of service and the knowledge of clinical practice was decisive in the capacity to answer the questions; some required consultation of colleagues.

In Israel, the observers had to plan appointments with three different staff members on the assessment day in order to obtain the required information. In these health centers, specific persons are responsible for the management of administrative issues (the administrative manager), for the drugs (the nursing manager) and for the storage of drugs (the chief pharmacist).

Lessons for implementation

- Enough time and privacy should be allocated for the interview with the practice manager or the general practitioner with management responsibilities
- In order to avoid socially desirable answers, it is important to state explicitly at the start of the interview that it is not necessary for the interviewee to know all the answers, and to allow time to check specific issues with colleagues.

Success factors

The following success factors were derived from a short questionnaire in all participating countries. From the description of assessment visits that were considered successful visits and those that were failures,

similar factors appeared important, with few cross-country differences. Chances of success appear greater when:

- The practice is well prepared;
- The practice knows that the observer is coming and has allocated sufficient time;
- The practice has returned all questionnaires in time;
- There is an open, non-defensive atmosphere during the visit and the feedback session;
- The general practitioners and staff are keen to receive feedback and motivated to find areas for improvement;
- The general practitioner/staff are interested in doing regular evaluations to see whether weaknesses have improved;
- The observer is well-trained, has good interpersonal skills and is able to handle sensitive issues during feedback sessions; and
- The national health services or professional bodies support the assessment.

A practice perspective: "We want to improve—but how?"

I work as a general practitioner in a small practice with two practice assistants. One assistant joined to do the Maturity Matrix assessment on her "day off." We had completed 36 patient questionnaires and had everything ready when the observer returned. I reserved an hour and accepted no calls in order to discuss all the matters raised during the interview and feedback session.

It was quite an interesting experience. We learnt a lot from the discussions in the feedback meeting, and made several suggestions to improve our organization, for example to start quality and safety meetings.

When we started to plan some changes, we needed additional support. We phoned the observer but could not get any follow-up advice or help. Now that we know *what* to improve, we do not know *how*.

The preceding and the following box are based on real experiences of observers and show some elements that make an assessment a successful or failure experience for both the general practitioner and the observer.

An observer's perspective: "A useless experience"
Recently, I did an assessment visit to a single-handed practice with a part-time assistant. We understood that the doctor had agreed to participate because a colleague had recommended the process. When I arrived, the practice was busy with many patients sitting in the waiting room. There were so many disturbances that I could not complete my checklist.
During the feedback session, I tried to be very clear on the strong and weak points of the practice and attempted tactfully to say that the lack of an appointment system was reflected in the patients' evaluations, and that the doctor's bag contained out of date medications. But I did not succeed in engaging the practitioner. He did not seem to be concentrating, reacted defensively, and said that his practice was well-organized. He did not show any interest in making improvements. When I left, I had the feeling that this had been a useless experience.

Conclusions

The overall impression was that the assessment approach taken by EPA was feasible and generally well-received by the practices in all countries. We found, however, that the preparation and the assessment visit pose a burden on busy practices if these efforts are not compensated by material or immaterial rewards.

The types of obstacles that occur during the implementation process depend also on the overall aim of the assessment. The aim can be either to inspect and to benchmark, or to be formative with providing information for practice improvement. When formative feedback is the aim, practices are more likely to show willingness and interest to participate, which facilitates the access to practices. As the individual practice results will not be shared with others, the practice can be reassured about the ownership of data, which facilitates the data collection in the practice.

If inspection and accreditation is the aim, social desirability of answers and practices covering up weaknesses and errors may play a role. The identification of "low performing" practices may affect the reliability of answers of staff and general practitioners. During

feedback sessions, the atmosphere and attitude of staff may be defensive.

Our general conclusion is that the EPA approach can be used for both purposes, although care should be taken that observers are well-trained in dealing with the obstacles that are most likely to occur when gaining access to practices, during data collection and when they provide feedback. Further research on how the assessment is experienced by practices and observers will be supportive in redesigning, optimizing and refining the assessment procedure and tools.

The Role of Feedback for Quality Improvement in Primary Care

Beat Künzi, Björn Broge, Pieter van den Hombergh

Introduction

Comparing EPA to other approaches aiming to assess and enhance the performance of practice management (e.g., the ISO method), the most remarkable difference probably is the strictly data-driven approach combined with a scientific evaluation and validation. It had been planned to make use of such data for feedback to the users of EPA later, as this has been done by predecessors of EPA, such as the Dutch VIP (van den Hombergh 1998) or Swisspep Quali Doc (Künzi 1999 and 2004), for several years. Nevertheless, the development of an appropriate feedback method was not included in the EPA project, because of time constraints. In this chapter, we will discuss this issue and give examples on how to provide feedback to have optimal impact.

In some countries, data are collected to assess the quality of care particularly to make valid and reliable statements to stakeholders, e.g., to enable consumers and providers of care to compare performance. The aim of quality improvement programs such as Swisspep Quali Doc, the Dutch VIP or the German Visotool is different. They are meant to support practices or clinical "microsystems" (Wasson 2003) in their search for ideas about how to improve care routines and health outcomes. Data collection is the start of a "feedback loop" that leads a practice from a confrontation with the problems revealed by the data towards solving these problems.

Still, audit and feedback have not been found to be consistently effective. In other words, simply transferring information to providers of health care may not produce a measurable effect. The modes of feedback of performance data and respective policies for educational support vary widely, leading to a confusing variation and inconsisten-

cy of results in different contexts. In this chapter, we will first analyze and define the feedback process for quality improvement briefly and then focus on the best ways to present feedback and use it to improve patient care.

Analyzing the feedback process

The Medical Subject Headings (MeSH) term "feedback" was defined in 1965 as "A mechanism of communication within a system in that the input signal generates an output response which returns to influence the continued activity or productivity of that system." (Abfrage online: www.nlm.gov/mesh/2004/MBrowser.html) In 2002, a distinction was made between "biochemical" and "psychological" feedback. "Feedback, Psychological" was defined as "A mechanism of information stimulus and response that may control subsequent behavior, cognition, perception, or performance."

Presenting feedback of collected data to care providers is an implicit part of the quality cycle. Research about optimal ways of data feedback is scarce. Seminal publications about quality improvement in busy clinical settings usually lack an evidence-based description of how feedback will work best.

Instead, pragmatic recommendations for guiding data analysis and repeated data feedback are usually given, for instance by Nelson (1998): "Try to change and improve the delivery process while gathering data and plot results over time and analyze them by using a control chart or other graphical method. Then refine your understanding of variation in processes and outcomes by dividing patients into clinically homogeneous subgroups (stratification) and analyzing the results separately for each subgroup. Finally, make further changes while measuring key outcomes over time." (p. 460)

The aim of feedback is to demonstrate to the subject the impact of his or her behavior, and to enable him or her to make choices regarding future behavior. All interventions that include individualized feedback may have a role in facilitating all stages of change. Support should be based on presented data to stimulate reflection and agreement on needed change, starting with the setting of priorities, and by pointing out achievable goals on individual and system level.

The literature on change in doctors' behavior describes how the

size of the gap between actual and desired practice influences personal motivation and learning (Fox 1998). A small discrepancy may be overlooked; however, a large one may appear unrealistic and thus be denied. For effective learning to proceed, achievement of the desired outcome must be perceived either as realistic or as divisible into manageable learning steps, and as transformable into a learning plan. (Handfield-Jones 2002)

What is the best way of presenting feedback to care providers?

Szczepura compared the impact of three different ways of presenting feedback of routinely collected, centrally-held data including risk factor recording in medical notes, analyzed at practice level. About two thirds of practices reported organizational change as a consequence of feedback in "graphical, graphical plus a visit by a medical facilitator and tabular form" (Szczepura 1994: 21); feedback strategies using graphical and tabular comparative data were equally cost-effective, whereas feedback involving unsolicited medical facilitator visits was less cost-effective (ibid: 22).

The effectiveness of data feedback depends not only on the quality and timeliness of the data, but also on the organizational context in which such efforts are implemented (Bradley 2004):

- Data must be perceived by physicians as valid and actionable to motivate change.
- It takes time to develop the credibility of data within a given setting.
- The source and timeliness of data are critical to perceived validity.
- Benchmarking improves the meaningfulness of data feedback.
- Physician leaders can enhance the effectiveness of data feedback.
- Data feedback that profiles an individual physician's practices can be effective but may be perceived as punitive.
- Data feedback must persist to sustain improved performance.

Current theories of quality management and improvement recommend comparison to best practices rather than to minimal standards or average to induce change (Edgman-Levitan 2003). The use of achievable benchmarks significantly enhanced the effectiveness of individualized physician performance feedback in the setting of a multimodal quality improvement intervention comparable to EPA (Kiefe

2001). Presenting provider profiles within an objective measure of performance and achievable benchmark framework confers significant face as well as content validity to the profiles.

Research from both industry and medicine (Fidler 1999) shows that using a balanced scorecard (Kaplan 1992) or an individualized multi-source feedback systems/360-degree feedback (Griffin 2000) can result in individual improvement and the adoption of new practices (Bero 1998). Another advantage of using a balanced scorecard for feedback is that a range of strategic key indicators like clinical measures, patient ratings and key drivers of poor performance such as the use of information technology may be presented in an integrated way (Epstein 2004).

Last but not least we have to be aware that the way of data presentation may also lead to overreaction. Using control charts rather than ranked histograms (league tables) for the routine presentation of comparative data reduced over-investigation of unusual performance (Marshall 2004).

Next we review some of the experiences of the authors in designing effective feedback, with examples from the Netherlands (VIP), Switzerland (Quali Doc), and from Germany (Visotool). Visotool has been developed for the use with EPA.

Feedback presentation in the VIP program

In the Netherlands, the Visit Instrument Practice management (VIP) had been developed before 1995 (see box below). In later versions of the VIP, we experimented with feedback on aspects of practice management in general practice in the form of histograms. We not only showed reference data per indicator, but also per dimension, both numerically and in a histogram (figure 1). Histograms not only show the average score of general practitioners or practices, but also "best practice." Best practice is the score at the right side of the histogram and "bad practice" the score on the left side. Feedback in a histogram thus provides more than one reference point for the general practitioner and the practice.

Figure 1: Example of the feedback on an aspect of chapter "Delegation" in the VIP

DELEGATION

Medical tasks delegated to the practice assistant	**Yes = Θ**	**Reference**
1. Removal of sutures (example of an indicator)	O	82 %
2. Blood sampling (venipuncture)	O	39 %
3. Ear syringing	Θ	71 %
4. Liquid nitrogen application to warts	Θ	73 %
5. Removal of splinters	O	37 %
6. Treatment of small (cut-) wounds with glue	O	33 %
7. Audiometry	Θ	26 %
8. Making an EKG	O	18 %
9. Intracutaneous allergy test	O	24 %
10. Taping of a sprained ankle	O	34 %
11. Giving injections	O	93 %
12. Removal of a foreign body from the eye	O	9 %
13. Pressure gradient bandage for leg ulcer	O	24 %
	+ ——	Average
Add up your "yes" scores and compare	**3**	5.9

Plot your score in the histogram:

Medical tasks delegated to the practice assistant

The practice visit method to assess practice management VIP, Visit Instrument to assess Practice management (van den Hombergh et al. 1999)

The domain of practice management was determined in a consensus procedure to establish the content of the VIP and its indicators. Questionnaires were developed to gather data on actual practice. The questionnaires were for the general practitioner(s), practice assistants and patients. A trained observer prepared a preliminary report with these data and completed the feedback report after a practice observation (for an example, see figure 1).

The visit takes half a day during regular hours. The general practitioner invests one hour in answering the questionnaire. The time required to discuss the results is about one hour. Feedback by a non-physician observer instead of by a colleague proved to be more feasible and better accepted, but not more effective. In a follow-up after one year, general practitioner s and practices had changed significantly in most aspects. Comparing one's score in the feedback to the score of other colleagues and practices can be considered a sophisticated means of peer review.

Feedback presentation in Swisspep Quali Doc

A quality improvement initiative was started in 1999 by developing a balanced scorecard of standardized instruments to measure family practices' current performance against a model, which represents a position of "excellence." Benchmarks were calculated to guide multidimensional interventions to realize and monitor sustainable developments.

The participating practices may choose one of the three forms of feedback and support depending on their preferences and related costs:

- A written summary of results
- A workbook to be discussed in a standardized workshop with peers
- A workbook to be discussed with a trained peer during an outreach visits

Figure 2: Example from the Swisspep Quali Doc feedback report showing the results of patients' evaluations based on EUROPEP

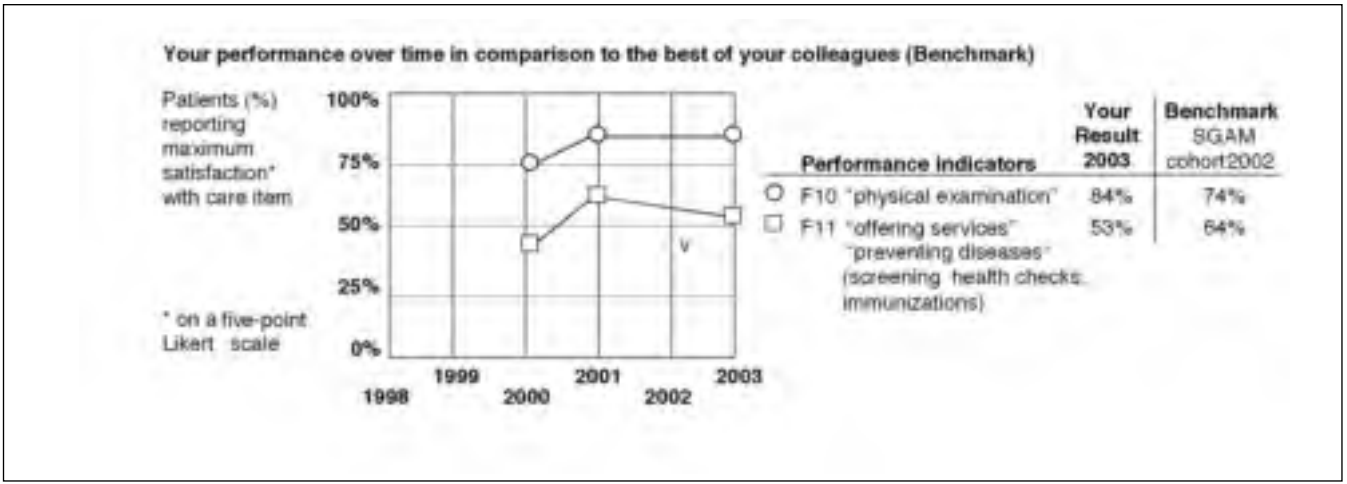
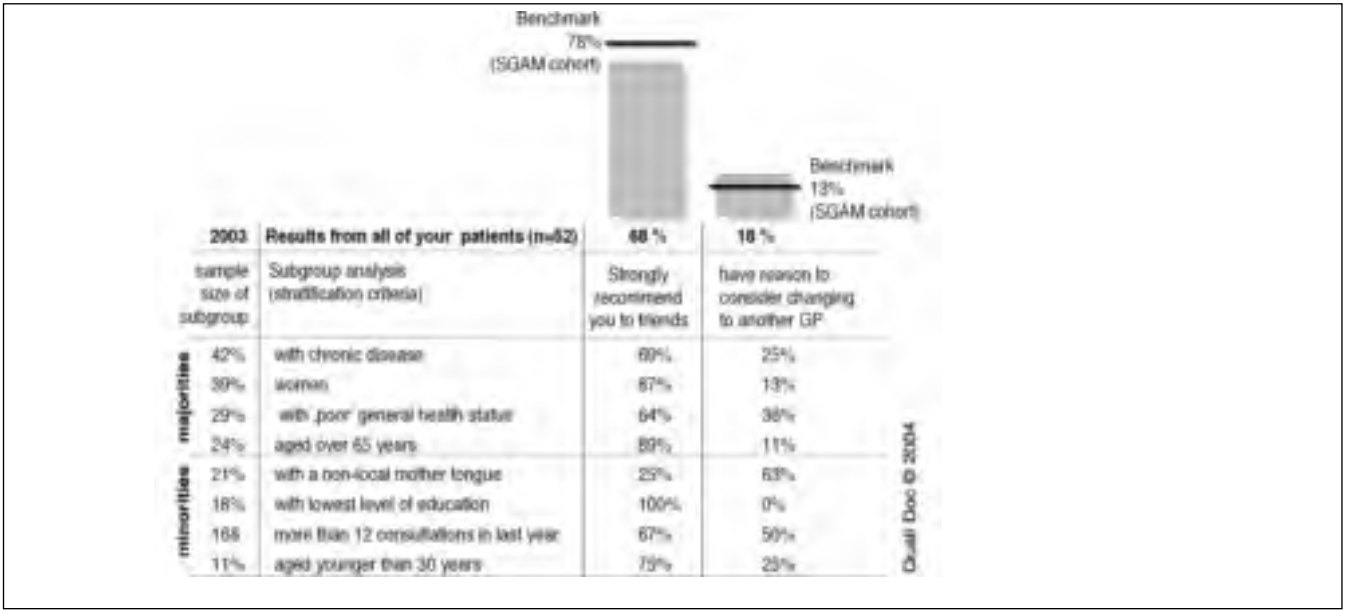


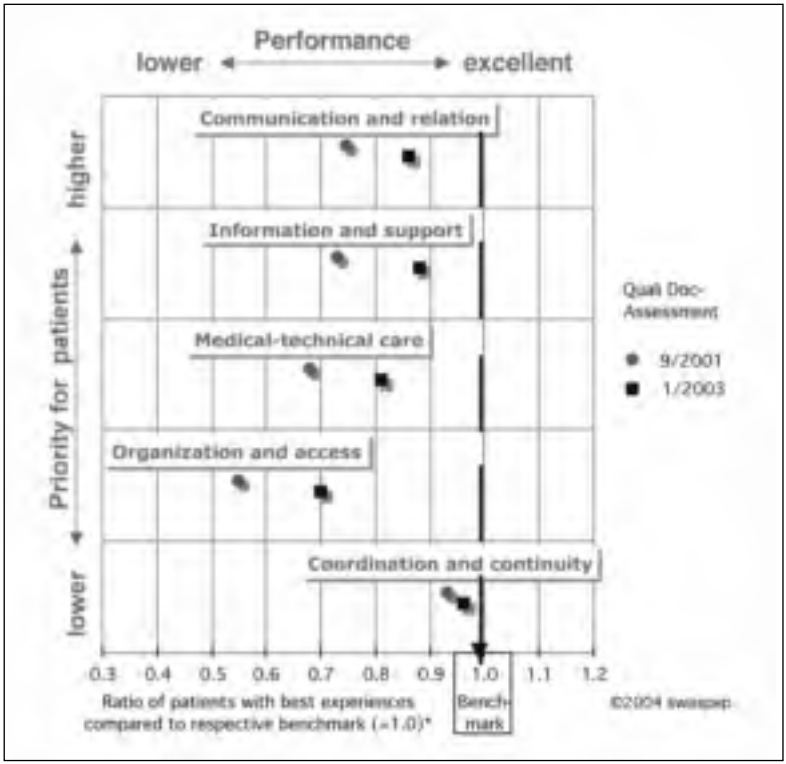
Figure 2 shows an example of an individual feedback report with the results of two follow-up assessments after a multidimensional intervention (after the initial assessment in 2000). In this graph, the EUROPEP indicators are used for summarizing patient experiences of medical-technical care received over time. Respective percentages of the evaluations of best performing colleagues ("benchmarks") are indicated for comparison.

Figure 3: Example of an individual general practitioner's Quali Doc feedback report showing loyalty of patients



68% of all patients giving feedback recommend this general practitioner fully to their friends, indicating a slightly lower overall adherence than the respective benchmark (78%). A subgroup analysis reveals differences among various patients groups, ranked by their numeric importance, in terms of patient loyalty. Patient groups with low loyalty and many reasons to consider changing to another general practitioner may indicate problems areas.

Figure 4: Feedback of patients' experiences based on EUROPEP compared to respective benchmarks from the chosen reference group



*Interpretation: The general practitioner shows an improved performance, only slightly lower than benchmark practices, with an actual ratio of 0.86 of the respective numbers of patients with best experiences with regard to communication and relation. The gap to the benchmark indicates improvement potential.

Much emphasis was put on developing a straightforward way of presenting results, summarizing stratified data from a patients' survey and physician's and non-physician co-workers' questionnaires as graphical plots, tables and text. Figures compare doctors' performance over time with benchmarks (figure 2), and patients' profile with the reference group.

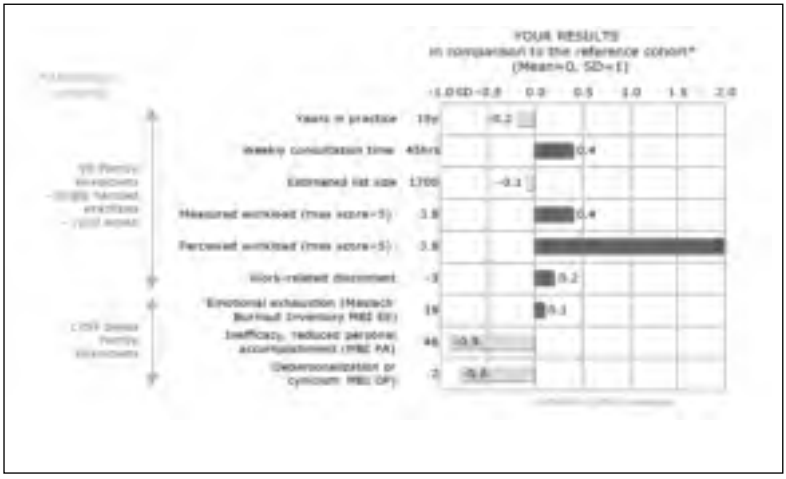
Participants may choose a motivating reference group from the national database for comparison, e.g., their own physician network or the national cohort as shown in figure 2. The report also differentiates

patient subgroups with higher and lower loyalty to the physician (figure 3) with reference to average and benchmarks.

Comparisons with the chosen reference are presented in relation to the composite 90th rank percentile benchmarks, for example of the proportion of patients with best experiences, sorted by patients' priorities (figure 4).

The rationale and way of calculating benchmarks from patient derived data (e.g., EUROPEP data) is explained in the box below. Benchmarks for comparing self-assessment data from non-physician co-workers' questionnaires were set at the ideal level, e.g., 100 percent of staff were to state, "I can fully bring in my knowledge and my skills in the practice team." Data from physicians' questionnaires, e.g., workload or work-related satisfaction, were not benchmarked. Instead, the Quali Doc feedback reports standardized z-scores (mean=0, SD=1), i.e., the statistical difference compared to a reference group of peers working under similar conditions (for practice type and localization, see figure 5).

Figure 5: Example of a feedback report summarizing aggregated scores of the Swisspep Quali Doc questionnaire for physicians in comparison with chosen reference group



Interpretation: Compared to colleagues in practices with the same practice size and locality, your situation is average except for a significantly higher perceived workload (two standard deviations higher than comparison group).

How to develop achievable and stimulating benchmarks from patient derived data (Künzi 2004)

To develop achievable and stimulating benchmarks from patient-derived data (e.g., EUROPEP data), two steps are important: First, item responses from five-point Likert scales were dichotomized as "excellent" and "not excellent." This takes into account the tendency of patients to give their doctors favorable ratings. Furthermore, providers must aim for complete patient satisfaction; anything less may lead patients to change physicians (Reichheld 1996). Therefore, to find benchmarks, we ranked all practices in the reference cohort according to the percentage of patients answering "excellent" with regard to the pertinent item. The benchmark was then defined as the 90 percentive rank (90pBM) of these data, showing what the best-performing physicians (i.e., 10 percent) reach.

This technique produced high but realistic goals for all of the indicators. It is noteworthy that simply taking the 90th percentile of performance produced indicator goals of 100 percent for none of the EUROPEP indicators. The lowest benchmark (90pBM) was found for the item "quick relief of your symptoms." Inter-quartile ranges in the order of 15 percent underline the feasibility of comparing individual performance with 90pBM performance to guide quality improvement.

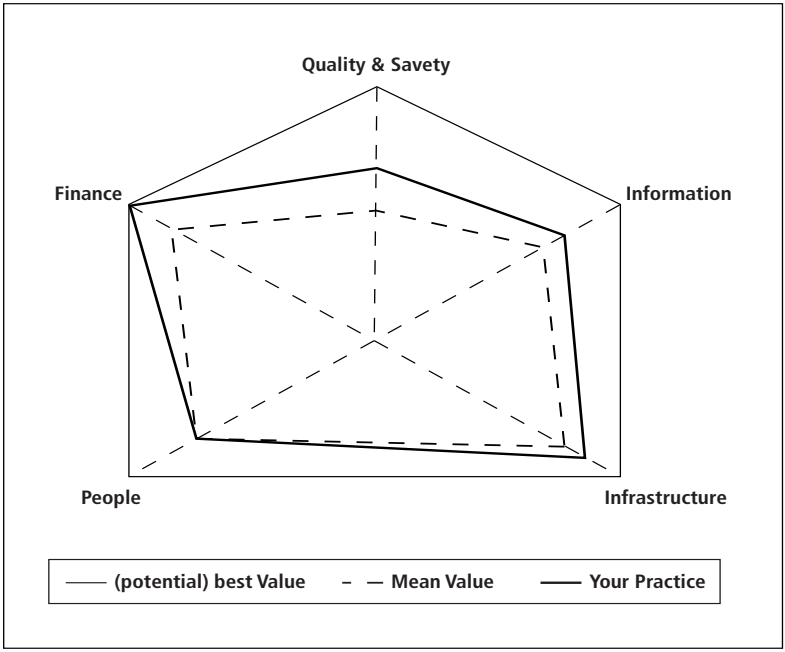
In contrast to this, comparisons of 90pBM across different practice settings and different physician networks showed differences only for a few items, e.g., for waiting times.

90pBM derived from the validated indicators of the EUROPEP instrument proved to be very stable over the years. 14 out of 23 benchmarks did not change between 1998 and 2001. We consider this as a marker of both face and content validity of the instrument. But we found a consistent drop of all 90pBM reflecting practice organization ($p < 0.001$ between 1998 and 2001). This phenomenon confirms similar findings made elsewhere (Murphy et al. 2001).

Making use of EPA indicators for feedback: the approach of Visotool

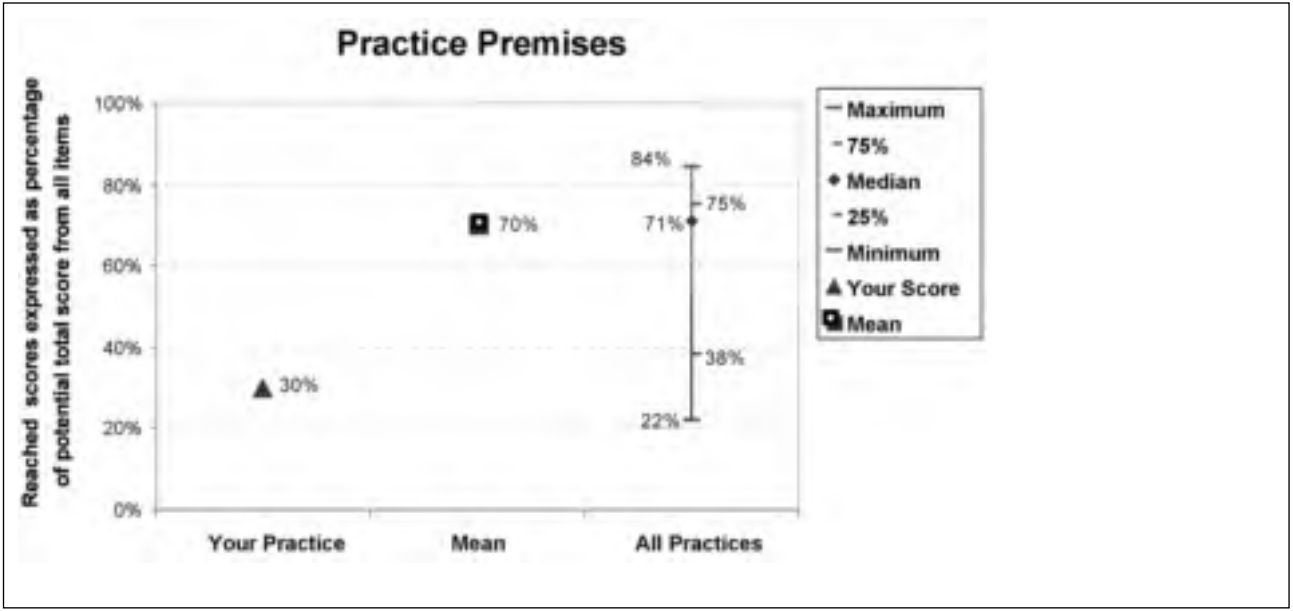
The basic structure of feedback produced with the help of Visotool refers to the domain model of EPA. For this, the high number of EPA indicators is condensed in graphic starting at the highest level of aggregation within the EPA model (domains), thus allowing users to grasp the main results in comprehensive form. Figure 6 represents the five domains of EPA as a radar-chart, the "EPA pentagraph" or "quality house."

Figure 6: Visotool pentagraph or "quality house" representing the aggregated scores on the 5 main EPA-domains



The pentagraph gives an overview on the total score of all included indicators within one dimension of the EPA instrument and the respective maximum, average and minimum of a reference cohort of practices (in this case of pilot practices in Switzerland).

Figure 7: Visotool variance chart on the level of the dimension accessibility and availability



In Visotool, the result of the practice is feedback with reference to the mean and the range of performance (divided by quartiles) of the comparison group.

The bold line and the dashed line represent the results of all indicators for an individual practice and the mean results of all reference practices, respectively. In order to be able to show results on this aggregated level, all items were transferred into degrees of goal achievement between 0 percent and 100 percent ("yes" being 100 percent, at the edge of the pentagraph, and "no" being 0 percent goal achievement for a specific item).

Starting with the radar chart, users can change the comparison group or benchmark values and look at the results in detail. Figure 7 shows an example of such a variance chart on the level of the accessibility and availability dimension.

How to get from feedback to change in practice

The absolute effects of audit and feedback are mixed, but more likely to be larger when baseline adherence to recommended practice is low. But when it is effective, the effects are in fact generally small to moderate (Jamtvedt 2003). Therefore, we should not rely solely on audit and feedback for enhancing professional behavior (Thomson O'Brien 2000). For the time being, it is not possible to recommend one specific complementary intervention to enhance the effectiveness of audit and feedback (Grol and Grimshaw 2003). Which intervention is preferred depends on the objective, the target group and the target setting. For use in primary care practices when dealing with the topic "practice management," we may focus on small, easy-to-handle projects with external support (Geboers 2001).

Improving implementation of the feedback: The VIP example

The feedback in the VIP procedure is discussed with a non-physician observer in a one-hour feedback consultation after the visit. To increase the effectiveness of the feedback, it is strongly recommended to discuss the feedback in a practice meeting of at least two hours, or in the general practitioner group.

Secondly, a special voluntary program has been developed for practices that want to learn how to do systematic quality improvement. The practice is coached by a trained and experienced non-physician

practice visitor to work in five practice meetings of two hours each on translating the feedback into small scale improvement projects and ultimately change. One person in the practice is appointed to supervise the activities and establish a permanent quality improvement system in the practice. The evaluation of this intervention is to be published.

Thirdly, all general practitioners who had a practice visit with VIP receive a mailing inviting them to enter a three-day training course to use the feedback as a starting point for improving their practice.

VIP offers feedback on many aspects of practice management. To further stimulate action on aspects in need of improvement, a computerized version (CD-ROM) of VIP has been developed that helps practices define intentions for change and practice policy plans to realize these changes. New developments in the electronic presentation of feedback in VIP are currently planned, such as:

- Educational feedback for the general practitioner or the practice
- "Practice profile" for patients on the website of the practice
- Core information in a format for the annual report
- Outcome data for care-purchasers of authorities

Improving the implementation of the feedback: The Swisspep Quali Doc example

The most import step in bringing "Quali Doc" to action was the shared interpretation of the standard feedback by the evaluated practice team with a respected peer and experienced general practitioner during an "outreach visit." Feedback visits usually last three to four hours, giving enough time to understand one's own data and to stimulate the setting of priorities for further action. This session aims at an agreed on and written practice plan either to overcome barriers or for further analysis.

Sending a written feedback with benchmark comparisons at the request of participating practices was cheap to implement, but produced many frustrations. To overcome these problems with either written feedback or expensive practice visits, standardized educational workshops were introduced, e.g., for participating doctors from the same quality circles or physician network.

Table 1: Comparison of different forms of Quali Doc feedback as assessed by participants in the follow-up questionnaire (Künzi 2004)

Item on follow-up questionnaire Quali Doc ...	**Written feedback only (n=48)**	**Educational workshop (n=34)**	**Outreach visit (n=29)**	**p**
	Agreement with item (in percent)[a]			
... only requires little organizational effort to have useful effects	70%	71%	100%	$p < 0.01$
... has costs which are in a good relation to its effectiveness	50%	50%	78%	$p < 0.05$
... brought more work-related satisfaction	42%	66%	66%	n.s.
... provided relevant feedback related to the medical care I provide	48%	41%	64%	n.s.
... provided relevant feedback related to my communicational skills	56%	82%	82%	$p < 0.01$
... provided relevant feedback related to my practice management	58%	71%	76%	n.s.
... results were discussed in depth by the practice team	61%	69%	78%	n.s.
... led to planning of improvements	67%	73%	86%	n.s.
... was followed by concrete changes	47%	64%	79%	$p < 0.05$
... gave reason for concrete improvements	39%	41%	66%	$p < 0.1$
... is the reason why my patients have seen and profited from concrete improvements since	27%	23%	39%	n.s.
... will need a follow-up measurement to evaluate changes made in my practice	31%	38%	60%	$p < 0.1$
... shall be recommended to all of my peers	67%	74%	83%	n.s.
Overall ratings of Quali Doc appraisal[b]	*7.2 ±3.5*	*8.0 ±3.0*	*10.0±2.5*	

(a) Rate of agreement (i.e., 4 or 5) an a five-point scale
(b) Mean number of items (± standard deviation) on feedback questionnaire with full agreement. Differences between written feedback and workshop, workshop and outreach visit, and written feedback and outreach visit are statistically not significant, significant with $p<0.05$, and significant with $p<0.01$ respectively (T-tests).
n.s. means that differences are not statistically significant
$p<0.1$ denotes a trend (without reaching statistical significance)

Learning, i.e., digging deeper into emerging and often unrecognized "best practice" disclosed by a present colleague, usually turned into a rewarding experience for all during those workshops. About six months after the feedback events, participating practices get a formal follow-up questionnaire to report on progress made so far. Table 1 summarizes the findings from 111 practices and allows a comparison of the respective impact of three different forms of feedback used.

The analysis of the follow-up questionnaires showed that outreach visits were perceived as most efficient, providing a higher amount of relevant feedback (mainly related to communicational skills, table 1). 47 percent of the physicians among those who have gotten only written feedback reported having made concrete change, whereas the rate among those who had an outreach visit was significantly higher with 79 percent. Outreach visits gave more reasons for concrete improvements and made the need for follow-up measurement more evident. Outreach visits often ended up with a very personal reflection on the actual situation, helping to shape out important barriers to change.

Thus, eventually individual learning portfolios for staff members can be developed, based on the agreed-on plan for the respective practice. With respect to this, it is important to set only few and clear short-term aims. Supporting material, e.g., for rapid change audits or a list of possible intervention modules (e.g., communication training, quality circle work, etc.) may be helpful. The recommended interval for monitoring the effect of interventions was agreed upon, depending on the findings, it varies between 12 and 36 months.

The overall impact of the Swisspep Quali Doc appraisal on self-learning of family practitioners was fair after a short written feedback alone, good after a workshop based on individual workbook with one's own results and benchmark comparisons, and very good after an outreach visit based on the same workbook (table 1).

Improving the implementation of EPA feedback with Visotool

As mentioned above, giving feedback was not the objective of the EPA study, because the project itself focused on the development and testing of a common European indicator set. Nevertheless, researchers of the German EPA group put a lot of effort in developing concepts for the implementation of feedback during this phase.

In contrast to existing models such as VIP and Quali Doc, the approach of Visotool was developed during the project by the AQUA Institute especially for EPA. Visotool was tested with an additional set of practices and is now used to support the implementation of EPA in Germany. Swisspep will make a multi-lingual version available for Switzerland by the end of 2004.

The main new aspects that Visotool adds to the approaches of Quali Doc and VIP are the integrative concept and the online accessibility. Visotool is not just a feedback software, as it also integrates the workflow management of the EPA assessment and improvement process. Visotool supports both participating practices and practice visitors regarding the following six main tasks:

- Administration of EPA assessment process (e.g., address management, generating and mailing of letters and questionnaires, monitoring of the data collection procedure, agenda management for practice visits)
- Data entry (password-protected data input, online or offline, from paper-based EPA data, consistency check)
- Generating feedback reports (online feedback and written feedback)
- Providing educational materials (further information on indicators, examples to interpret results and for change management, links to further quality improvement initiatives, e.g., quality circles)
- Administration of EPA indicators (managing different versions and updates of EPA indicators and related instruments)
- Administration of Visotool (versions and languages, user passwords, other general settings)

The main reason for such an integrative approach was to have a stable process that allows an effective and error-free procedure irrespective of the number of practices using it during the implementation of EPA. This is crucial in giving feedback, because a smooth and consistent process enhances the trust of users with respect to the perception of their own results.

The second main characteristic of Visotool is its online accessibility, one of the main reasons for developing the instrument. This offers the possibility of giving a sophisticated feedback, including a comparison with benchmarks as early as on the day of the practice visit. This also includes the opportunity for a moderated discus-

sion of the results within a practice team meeting just after completion of the data collection.

Sending out printed feedback after the visit would mean that a second visit with extra costs has to be organized. Furthermore, online accessibility allows visitors to monitor their practices easily during the whole assessment process, and participating practices may look up their own results any time during and after completion of EPA.

Last but not least Visotool helps to structure change management in making practice plans and related actions explicit and accessible for all involved or invited. While many features of Visotool were already used during the pilot (administration, data entry), the feedback feature has only been used since the start implementation phase of EPA in Germany. Right now, about 20 practices had a practice visit with online feedback. The system is working and users seem to be comfortable with it. Further evaluation will follow in the next months.

Recommendations about how to use feedback for implementing EPA

Based on available evidence and the practical experiences of the authors and of others (Edgman-Levitan 2003), we make the following basic recommendations for giving effective feedback based on EPA data:

- Analyze performance not compared to averages, but to benchmarks or strategic goals.
- Identify key drivers of poor performance.
- Analyze performance at a more detailed and actionable level.
- Identify changes or trends in performance.
- Combine selected quality measures into multi-item scores where feasible.
- Present credible data in visually compelling formats for people with different learning styles.
- Consider other indicators of performance measurement.

A more detailed guideline for peer comparison feedback, also called physician profiling, adapted from the American Academy of Family Physicians (AAFP 1999), is outlined below:

- Have as the purpose of comparison feedback to assess and improve the quality of patient care and clinical outcomes.

- Clearly define what is being measured. For example, clinical performance measures that are clearly linked to improved clinical outcomes and population health, access to appropriate and timely care measures, patient acceptability/satisfaction measures and financial/resource utilization measures related to clinical outcomes.
- Select measurement goals that are actionable, i.e., the measures and reporting system must provide information that physicians can easily interpret and translate into action to achieve the stated measurement goal.
- Involve physicians in developing performance measures and the feedback process.
- Explicitly describe the data sources on which measurement is based, e.g., administrative/payment claims, medical records, surveys, pharmacy claims or laboratory claims.
- Clearly report on the validity, accuracy, reliability and limitations of data utilized in reporting results and when providing physician feedback. This may include:
  - Steps taken to ensure data accuracy
  - Clearly defining the peer group against which individual physician performance is being measured/compared
  - Disclosing data limitations, e.g., the impact of an "open access" product in which the primary care physician may have little or no control over resource utilization
  - Describing the assignment of patient populations to either individual or physician groupings
  - Using an appropriate sample size to assure validity
  - Including appropriate risk adjustment and case mix measures
  - Establishing and reporting data using meaningful time periods for data collection
- Utilize criteria for comparison purposes that are based on valid peer groups, evidence-based statistical norms and/or evidence-based clinical policies.
- Identify individual patients who are not receiving indicated clinical interventions and provide interventions to improve physician performance relative to stated measurement goals.
- Respect the need for strong but reasonable privacy and confidentiality standards.

Concluding remarks and future developments

EPA was not focused on investigating effective feedback to general practitioners and practices. But the instruments VIP, Visotool and Swisspep Quali Doc may serve as examples of how to use EPA data successfully in the future. Attractively presented feedback and peer-comparisons are helpful if they point out actionable items without stimulating overreaction. But the focus should be on the organization of making the feedback sink in and work. Considering recommendations and experiences as described above may result in more effective feedback from EPA.

Developing a system for learning that arises from needs in daily practice and that involves the individual doctor is part of the challenge in meeting the public's expectations of its health care system (Handfield-Jones 2002). As long as we lack compelling evidence on how to do this, assessment should principally be formative in order to provide doctors and their care teams with information on how they are doing compared to their peers and with individualized feedback about the effectiveness of quality improvement activities, thus enhancing the quality of the learning process itself. Further research will be needed to test the effects of modifying important characteristics of the feedback process such as the content, source, timing, recipient and format.

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Epilogue: The Future of EPA—Implications for Practice and Policy Making

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Introduction

Receiving high quality of health care is a fundamental right of every individual. This statement figured prominently in the introduction to this book. Reflecting on how to achieve a high quality of health care provided to everyone, regardless of age, sex, and background, we concluded that valid, reliable and acceptable indicators and instruments are needed to evaluate actual care delivery. These are needed to guide quality improvement activities, to guide choices between providers and to assure society that the care provided is of an acceptable quality.

The development and use of such indicators and instruments is not an easy task. Different stakeholders may have different ideas and expectations with respect to quality assessment and the use of indicators. These may sometimes conflict, causing fear and resistance among those who will be evaluated.

Most formal systems of evaluation of health care still lack sufficient scientific basis. Thus, a rigorous, careful development is very important to present products that are credible and acceptable to all involved.

In this book we have presented the results of a project aimed at such a rigorous step-by-step development and validation of a specific set of indicators: indicators for the evaluation of primary care practices and their management and organization. Optimal management is believed to be a crucial condition for, and an important component of, optimal patient care. The exercise undertaken in eight countries resulted in a valuable tool for quality improvement to be used at both the country and the European level. It showed that it is indeed possible to achieve collaboration and consensus on such a difficult aspect

of health care performance and that comparative data across countries are very interesting for policymaking.

The next step would now be the wide implementation of this project and its results in Europe. In doing so, it is necessary to take into account a few considerations, such as:

– Differences between countries
– Role of different parties, role of policymakers
– Next steps to be taken in EPA

Differences between countries

Every country gets the health care system it deserves. The health care system adopted is usually the solution that fits best within the wider political system in a country. Health care systems usually develop over time based on historical developments and the culture within a specific country. Decisions taken in the past usually still influence current approaches on, for instance, the role of primary care in the system, its relationship to hospital care, the size of primary care practices, the system for reimbursing practices, the staff available. Such differences may have a large impact on the organization of services and the management of practices. This implies that it is not easy to force models adopted in one country onto other countries.

Reflecting on the future of EPA, this means that each country has to further develop its own evaluation system for primary health care. In some countries, a bottom-up approach to evaluation, with professionals in the lead and voluntary participation of practices, is normal, and the system for evaluation will have to fit within this philosophy. In other countries, a more top-down approach with authorities or payers in the lead has been adopted, resulting in more external pressure and control. Despite such differences, it is worthwhile to further develop and underpin with research the set of indicators at a European level in the EPA project. This project has shown that it is possible to deliver comparative data on a set of highly interesting aspects of primary care services and that countries can indeed collaborate successfully on such an important topic.

An important decision to be taken by each country and by the responsible actors now is how to use these indicators and the related instruments. Some countries developed EPA into a formal accreditation

and certification procedure (e.g., Stiftung Praxistest in Germany and Switzerland). Other countries face important problems in its implementation and propose a careful, step-by-step introduction by pilot projects with voluntary participation (e.g., France and Belgium). In some countries, the EPA tool can be built into current regulations to set up quality assessment systems (e.g., Austria). In the Netherlands, the EPA indicators will be part of the voluntary national accreditation system and some of the new contracting systems.

Role of different parties

We already addressed the issue of tension between different uses of an instrument like EPA. Policymakers, authorities and payers usually want more external control and confidence that health care is doing a good job. They may want to use EPA to distinguish between good and bad primary care practices, may want to publish data on the differences between practices and may want to act on practices scoring lower on the indicators.

Health care providers, in contrast, want trust in their capacities and abilities to perform well. They prefer internal use of the results for setting priorities to improve practice. Too much control from outside may result in resistance, data manipulation and loss of morale; on the other hand, it has become clear that practices need to be more open about their performance to guarantee trust in the future.

So, what is the right balance? Most authors propose a form of controlled self-regulation. Care providers own the quality initiative, and the responsible authorities or payers focus their energy on providing the teaching, training, resources and support for the quality assessment activities, demanding a good account of the activities undertaken and the global results in return.

Many practitioners are still very confused and ignorant with respect to quality assessment. The crucial task for policymakers would be to make quality assessment felt not as an external pressure, but as part of the normal work, as part of the ordinary practice routines. As Scrivens put it: "Regulation in the control of quality in health care cannot be based on coercion, it has to be based on persuasion and support to health care professionals." (in: Scrivens E. Regulation ideas. Eye of the beholder. *Health Service Journal* 2004; 14: 16–18)

Next steps in EPA

The current project was a pilot carried out in eight countries (Israel was added later). It should be clear that the writing of this report is not the end, but rather the beginning of a longer, important development of indicators and instruments for the evaluation of primary health care. At least three tasks have to be taken up in the near future:

- *Continuous updating of indicators*: The set of indicators developed in EPA has to be seen as the first attempt to set quality criteria for primary care at a European level. We now have to start a continuous process of revising, improving and updating these indicators. Based on actual data from practice assessments, we can distinguish between indicators that are more and less valid, reliable, acceptable, feasible and sensitive to change.

  Since primary care is continuously changing in most countries, the relevance of specific indicators will also change. New indicators are needed to address new developments in primary care. Thus, we need to create a more or less formal infrastructure for regular revision and updating of the set of indicators and also for authorizing this set at a European level (e.g., a bi-annual updating process is foreseen). In order to have the possibility of comparing between countries, it is necessary that there be formal consensus on the set of indicators used.
- *Representative national and international data:* We need to further scientifically underpin the indicators, but also the data collected in the various countries. In the current pilot, we have worked with small convenience samples, hardly representative of the average practice in the various countries participating. In order to present credible comparable data across countries to both policymakers and practices, we need larger representative samples from the different countries. This large set of data can only be created in the course of time. It demands a well-kept database that can easily provide the data when needed to all stakeholders.
- *Support programs to practice improvement:* Evaluation of quality without the explicit intention of improving practice is a waste of money. Thus, not only quality assessment is important but also the development of systems to support change. This implies first of all systems for providing educational feedback to those involved.

  The best system for giving feedback in relation to EPA is not clear

yet, although we have good experiences with specific tools (e.g., Visotool, developed in Germany, Quali Doc, developed in Switzerland, and VIP, developed in the Netherlands). Other tools needed are programs to support the change in practice, particularly programs that teach practices to set up small-scale quality improvement projects addressing very specific improvements in the management of the practice (e.g., the support programs developed in the Netherlands). Thus, the challenge for EPA in the future is to enhance EPA with specific tools for feedback and practice improvement.

– *Large-scale dissemination in Europe*: Finally, the challenge is to introduce EPA at a large scale in different countries in Europe. The channel for that will be, first of all, the European Association for Quality in Family Practice, EQuiP, a sub-organization of the World Organization of Family Doctors (WONCA), with delegates and coordinators for quality from almost 25 countries. We will explore how different countries can fit EPA into their current systems for quality development. The other approach will be to raise interest in policymakers and authorities in different European countries. This will be done by informing them about the results of EPA by papers, books and leaflets and by presenting EPA on their conferences.

In conclusion

With the support of the Bertelsmann Stiftung and the expertise of researchers and quality coordinators in nine countries, a new, fascinating tool has been developed for quality improvement in primary health care. We anticipate that this tool will set a trend in European collaboration in quality improvement in primary care.

Appendix

Complete list of indicators, as used in the Delphi study

Indicators marked with an X are those rated face valid, those marked with a double X having the highest level of consensus (rated 8 or 9 without disagreement, on a scale of 1 to 9).

Indicators marked with an O were rated equivocal or invalid by one or more panels.

GP is short for general practitioner.

	1.	*INFRASTRUCTURE*
	1.1.	*Premises*
	1.1.1	There are parking spaces near the practice
	1.1.2	There are parking spaces for the disabled near the practice
	1.1.3	The practice is easily accessible for patients in a wheelchair
	1.1.4	The main entrance of the practice is wide enough for a wheelchair
X	1.1.5	If the practice is on another floor than the ground level, there is a lift
	1.1.6	The practice has a toilet with hand-wash facilities for staff
X	1.1.7	The practice has a toilet with hand-wash facilities for patients
	1.1.8	The practice has a toilet with hand-wash facilities for disabled patients
X	1.1.9	There is sufficient seating in the waiting room
X	1.1.10	There is space for prams, buggies, etc.
	1.1.11	The waiting room has a place for children to play
	1.1.12	There are toys available in the play area
	1.1.13	The practice has a nappy changing area
	1.1.14	Patients find the waiting room comfortable

	1.1.15	Each consulting room has a separate examination room or space
	1.1.16	Staff experience a satisfactory working environment
	1.1.17	The practice provides privacy for patients and others in distress
X	1.1.18	Patients find the practice well maintained
X	1.1.19	Patients find the practice clean
	1.2. Medical equipment, including drugs	
	1.2.1	The practice has an up-to-date inventory list detailing which items of basic equipment must always be available on site
X	1.2.2	The essential basic equipment is available
	1.2.3	The practice has an up-to-date inventory list detailing which items of emergency and resuscitation equipment must always be available on site
X	1.2.4	The essential emergency and resuscitation equipment is available
X	1.2.5	The practice has an up-to-date inventory list detailing which emergency drugs must always be available on site
X	1.2.6	The essential emergency drugs are available
X	1.2.7	The practice has an up-to-date inventory list detailing what should be in the doctor's bag at all times
	1.2.8	The practice has a written protocol for supplying the contents of the doctor's bag
	1.2.9	The practice has a written protocol for checking expiry dates of material and drugs in the doctor's bag
XX	1.2.10	The contents of the doctor's bag are complete
X	1.2.11	The contents of the doctor's bag are not over expiry dates
	1.2.12	The practice has an inventory list detailing which drugs should be in stock
	1.2.13	The practice has a written protocol for stocking drugs
	1.2.14	The practice has a written protocol for checking expiry dates of drugs in stock
	1.2.15	The practice has a written protocol for checking expiry dates of all perishable materials
	1.2.16	There is yearly calibration of all the sphygmomanometers
X	1.2.17	The practice has a refrigerator for medicines that need to be kept cool
	1.2.18	The practice keeps controlled drugs in a locked cupboard that is fixed to an immovable structure

X	1.2.19	The practice keeps all drugs safely stored (not accessible to children, patients)
X	1.2.20	Hand-wash facilities are present in every consulting room and examination room
	1.3.	***Non-medical equipment***
	1.3.1	The practice has an operational fax
X	1.3.2	The practice has at least one computer for staff
X	1.3.3	The practice has an Internet connection
XX	1.3.4	All computers are protected against inappropriate access (password, firewall, virus scanner)
	1.3.5	Every GP has access to e-mail
	1.3.6	Every GP has access to the Internet
XX	1.3.7	The practice has a telephone system with sufficient inward and outward capacity
O	1.3.8	The practice has a separate emergency telephone line
	1.3.9	All electronic medical equipment is checked annually
	1.3.10	All safety equipment (e.g., fire extinguishers) is checked annually, according to the local regulations
	1.4.	***Accessibility and availability***
X	1.4.1	Patients of the practice have the opinion that they can contact the practice easily by telephone
	1.4.2	Clinical staff provide home visits for patients:
		1. who have requested them
XX		2. who are physically unable to travel to the practice
	1.4.3	The practice has a written protocol on what advice can be given by non-GPs to patients by telephone
X	1.4.4	Patients of the practice have the possibility to contact a GP by telephone
X	1.4.5	The practice has an appointment system
	1.4.6	The minimum consultation duration for a routine (non-urgent) appointment is:
		1. 5 minutes
		2. 6 to 9 minutes
O		3. 10 or more minutes
	1.4.7	Patients can normally make a routine (=non-urgent) appointment with a GP within:
		1. one day
		2. two days
		3. three days

		4. four or more days
XX	Patients contacting the practice out of hours have clear and rapid access to out-of-hours service	
	1.4.8	A sign is displayed outside the practice:
		1. detailing the practice's normal opening hours for each day of the week
XX		2. stating how to access after-hours care
XX	1.4.9	Reception staff have been trained to recognize and respond appropriately to urgent medical matters
	1.4.10	The practice has a written protocol for dealing with urgent medical matters
	1.4.11	Patients find the waiting time in the waiting room acceptable
	1.4.12	The practice has a system for recalling patients with chronic illnesses, e.g., diabetics, asthmatics
O	1.4.13	The practice has a system for recalling patients for preventive care or early case detection procedures
	1.4.14	The practice has clinics for specific important problems (e.g., family planning; diabetes)
	1.4.15	If patients do not have social insurance, there is a policy to guide them to social services
	1.4.16	The practice has arrangements to ensure the availability of a locum GP when needed
	2.	***PEOPLE***
	2.1.	***Personnel***
XX	2.1.1	All (non-GP) practice staff have signed contracts with the practice
	2.1.2	All staff have job descriptions
	2.1.3	All job descriptions include key tasks
	2.1.4	All medical and reception staff have been on additional training the past year
X	2.1.5	All staff involved in clinical care have appropriate qualificcations
	2.1.6	All staff involved in clinical care have appropriate experience
	2.1.7	All staff have an annual appraisal
	2.1.8	Written records are kept of every appraisal
	2.2.	***Team***
X	2.2.1	Responsibilities within the team are clearly defined

X	2.2.2	Responsibilities within the team are understood by team members
	2.2.3	1. The practice has a team meeting at least once a month
X		2. All staff are invited to participate in these meetings
		3. Records (minutes) are kept of the team meetings
		4. Records of the team meetings are available to all staff
	2.3.	***Education and training***
	2.3.1	All new staff are given an induction program
O	2.3.2	All staff have a written personal learning plan
	2.3.3	The practice provides time to implement personal learning plans
	2.4.	***Working conditions***
	2.4.1	The practice monitors the workload of its staff
	2.4.2	The practice monitors stress levels of its staff
O	2.4.3	The practice evaluates team working in the organization
O	2.4.4	The practice has had at least one away-day last year
X	2.4.5	Staff experience a pleasant working atmosphere
X	2.4.6	The practice has a policy which enables staff to offer suggestions for improving practice management
	3.	***INFORMATION***
	3.1.	***Clinical data/CRM/recall***
X	3.1.1	The practice has a paper medical record system
	3.1.2	The practice has a computerized medical record system
	3.1.3	Each patient medical record contains:
		1. personal:
		1.1 name of patient,
		1.2 date of birth,
X		1.3 telephone number,
		1.4 gender,
		1.5 full address and
X		1.6 occupation
		2. summary (hand-held and/or on computer) including problem list
X		3. family history
		4. smoking status
		5. other risk factors (smoking, alcohol, drugs)

	3.1.4	For every encounter the following are recorded:
X		1. reason why the patient came
X		2. a defined problem/diagnosis
X		3. data supporting the defined problem/diagnosis
X		4. a treatment plan
X		5. if medication is prescribed, the length, the dose and the administration of the treatment
X		6. a note on what the patient was told
		7. a GP identifier
X	3.1.5	The medical record contains laboratory and investigation results
	3.1.6	The practice has an age/sex register
O	3.1.7	The practice has a disease register (e.g., International Classification Of Primary Care, read codes)
O	3.1.8	The practice has a written protocol for reviewing repeat prescribing data
X	3.1.9	All patients receiving regular/repeat medications are reviewed at least annually by the GP
	3.1.10	The computer is used for:
		1. financial administration
		2. contact with pharmacies
X		3. patient medical registration
		4. recall of patients
X		5. referral letters
		6. prescriptions
		7. a reminder system (e.g., for preventive activities)
	3.2.	***Confidentiality and privacy***
X	3.2.1	Medical records, and other files containing patient information, are not stored or left visible in areas where members of the public have unrestricted access
X	3.2.2	The conversation at the reception desk cannot be heard by other patients
X	3.2.3	The conversation in the consultation room cannot be heard by other patients
	3.2.4	The practice informs patient and asks patient's consent about recording of patient personal health data
	3.3.	***System for communication/sharing information with colleagues and other health care providers***

	3.3.1	The practice has a protocol for patient information exchange with respect to out-of-hours contacts
O	3.3.2	The out-of-hours GP has access to medical records
X	3.3.3	The practice receives information about contacts with patients by out-of-hours GPs within 24 hours
X	3.3.4	The practice has an up-to-date directory of local health care providers
X	3.3.5	Copies of referral letters are kept in the patient's record
	3.3.6	Referral letters contain:
X		1. background information and history
X		2. problem
X		3. key examination findings
X		4. current treatment
X		5. reason for referral
	3.3.7	The practice has a cooperation agreement with other general practices
	The practice has a cooperation agreement with pharmacists	
	3.3.8	The practice has a cooperation agreement with community health organizations
	3.3.9	The practice has a cooperation agreement with paramedics
	3.3.10	The practice has a cooperation agreement with specialists
	3.3.11	The practice has a cooperation agreement with mental health services
	3.3.12	The practice has a cooperation agreement with care for the elderly
	3.3.13	The practice has a cooperation agreement with nursing home care
	3.3.14	The practice actively participates in collaborative health care networks for the provision of continuous care to:
		1. specific population groups (e.g., ethnic minorities, elderly)
		2. specific chronic diseases (e.g., diabetes, asthma, chronic heart failure, psychiatry)
		3. specific conditions (e.g., drug abuse, palliative care, pregnancy)
	3.3.15	The practice has a cooperation agreement with home care
	3.4.	***System to process information***
X	3.4.1	The practice has procedures that ensure incoming clinical information is seen by the patient's GP before being filed in the patient's medical record

	3.4.2	The practice has a written protocol to check whether requested patient information/test results have arrived
	3.4.3	The practice has a written protocol for notifying patients of all incoming results
	3.4.4	The practice contacts patients to follow up abnormal test results
X	3.4.5	The practice has procedures that ensure incoming information (letters, test results) is filed in the appropriate patient's medical record
	3.5.	***Information for/from the patient about the practice, practice policy and local environment***
	3.5.1	The practice has a practice information sheet
	3.5.2	The practice information sheet contains:
X		1. names of the GPs working in the practice
X		2. practice address and phone numbers
X		3. consulting hours
		4. after-hours arrangements including after-hours telephone number
		5. other services offered by the practice
	3.5.3	The practice monitors patient satisfaction regularly
	3.5.4	Written information is available for patients about service/treatments that are not covered by health insurance
	3.5.5	Written information about services/treatments that are not covered by health insurance are displayed visibly in the reception
	3.6.	***Scientific information for staff***
	3.6.1	Evidence-based up-to-date clinical guidelines are available in the consulting room
	3.6.2	The practice has a medical library
	3.6.3	The practice has a protocol for the selection of relevant scientific information
	3.6.4	The practice has on-line access to medical journals
	3.7.	***Information for patients about clinical care issues***
	3.7.1	An up-to-date selection of books and videos is available to patients
	3.7.2	A range of leaflets and brochures is available for patients to read in the practice or to take home
	3.7.3	Translator services are available on request
	3.7.4	Information leaflets are available in appropriate languages

	3.7.5	The practice information sheet is available in appropriate languages
	4.	***FINANCES***
	4.1.	***Financial planning (prospective)***
O	4.1.1	The practice produces an annual financial plan which includes expected income, expenditures and investments
	4.2.	***Monitoring of the financial plan***
O	4.2.1	The practice keeps full records of finances, including income, expenditures, petty-cash transactions and claims
O	4.2.2	The practice has a written protocol for the settlement of accounts (with patients)
	4.2.3	The practice has computer software for the settlement of accounts
	4.3.	***Financial leadership and responsibilities***
X	4.3.1	The responsibility for financial management in the practice is clearly defined
XX	4.3.2	Every GP is insured to cover liability
XX	4.3.3	Every member of the clinical staff is insured to cover liability
	4.4.	***Annual report (retrospective)***
X	4.4.1	The practice produces an annual financial report, which includes all income and expenditure
	5.	***QUALITY AND SAFETY***
	5.1.	***Quality policy***
	5.1.1	A designated person is responsible for leading the implementation of quality improvement
	5.1.2	The practice has set written targets for quality improvement in the last year
	5.1.3	The practice has written evidence of whether or not targets have been met in the last year
XX	5.1.4	All staff are involved in quality improvement
	5.1.5	The practice has a team meeting about quality improvement at least once a month
		2. All staff are invited to participate in these meetings
		3. Written records are kept of these meetings
		4. Records of the meetings are available to all staff
		5. The progress of quality improvement projects is a fixed item on the agenda

	5.2.	***Detection of quality or safety problems***
O	5.2.1	The practice has undertaken at least one clinical audit in the last year
O	5.2.2	The practice has a critical-incident register
	5.2.3	The practice has a documented process to follow up and analyze critical incidents
	5.2.4	The practice has a patient forum or a patient participation group
	5.2.5	The practice has a suggestion box for patients
	5.2.6	The practice has a complaint box for patients
O	5.2.7	The written patient complaint procedure is available at the reception
	5.3.	***Safety of the staff and patients***
XX	5.3.1	Smoking is not allowed in the practice
	5.3.2	"No smoking" signs are visible in the reception area
		The practice has the following health and safety systems:
	5.3.4	fire extinguishers
	5.3.5	smoke alarms
	5.3.6	doors to the reception area are protected by a coded key-pad
	5.3.7	an evacuation plan
	5.3.8	all external windows have secure locks
		The practice has:
XX	5.3.9	a sterilizer or an autoclave
XX	5.3.10	a container for used equipment
X	5.3.11	a leak-proof container for infectious or hazardous waste
XX	5.3.12	a container for disposal of sharps
	5.3.13	sterile clothes for minor surgery
X	5.3.14	protective equipment when dealing with blood/fluids (gloves, goggles, apron)
	5.3.15	The practice has a written protocol for the cleaning, disinfections, sterilization and decontamination of clinical equipment
	5.3.16	The practice has a written protocol for cleaning the
	5.3.17	The practice has a written infection control protocol for the prevention of contamination of the staff
	5.3.18	The practice has a written protocol for the disposal of contaminated waste

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