ASSOCIATION EUROPÉENNE DES MÉDECINS DES HÔPITAUX
EUROPEAN ASSOCIATION OF SENIOR HOSPITAL PHYSICIANS
EUROPÄISCHE VEREINIGUNG DER LEITENDEN KRANKENHAUSÄRZTE
EUROPESE VERENIGING VAN STAFARTSEN
DEN EUROPÆISKE OVERLÆGEFORENING
ΕΥΡΩΠΑΪΚΟΣ ΣΥΛΛΟΓΟΣ ΝΟΣΟΚΟΜΕΙΑΚΩΝ ΙΑΤΡΩΝ ΔΙΕΥΘΥΝΤΩΝ
ASSOCIAZIONE EUROPEA DEI MEDICI OSPEDALIERI
DEN EUROPEISKE OVERLEGEFORENING
ASSOCIAÇAO EUROPEIA DOS MÉDICOS HOSPITALARES
ASOCIACIÓN EUROPEA DE MÉDICOS DE HOSPITALES
EUROPEISKA ÖVERLÄKARFÖRENINGEN
EVROPSKO ZDRŽENJE BOLNIŠNIČNIH ZDRAVINIKOV
EUROPSKA ASOCIACIA NEMOCNICNÝCH LEKAROV
EUROPSKA UDRUGA BOLNIČKIH LIJEČNIKA
ЕВРОПЕЙСКА АСОЦИАЦИЯ НА СТАРШИТЕ БОЛНИЧНИ ЛЕКАРИ
ASOCIATIA EUROPEANA A MEDICILOR DIN SPITALE

Document :	**AEMH 09-069**
Title:	**Life long learning and physician revalidation in Europe**
Author :	**European Observatory on Health Systems and Policies**
Purpose :	**Information**
Distribution :	**AEMH Member Delegations**
Date :	**28 October 2009**

Euro Observer

The Health Policy Bulletin
of the European Observatory on Health Systems and Policies

Summer 2009

Volume 11, Number 2

Contents

Life long learning and physician revalidation in Europe

Philipa Mladovsky, Sherry Merkur, Elias Mossialos and Martin McKee

It is increasingly accepted that the completion of undergraduate medical education is only the first step in a process of life long learning for physicians. At its simplest, life long learning involves participation in continuing medical education (CME), designed to keep physicians up-to-date on clinical developments and medical knowledge. The broader concept of continuing professional development (CPD) includes CME along with the development of personal, social and managerial skills. More demanding methods incorporate other tools such as peer review, external evaluation and practice inspection. The outcome of these processes may be recertification or relicensure, although this is rarely the case in Europe.

Few countries require that physicians demonstrate explicitly that they remain fit to practice. The term 'revalidation' was coined by the General Medical Council (GMC) in the United Kingdom (UK), where it was defined as an "evaluation of a medical practitioner's fitness to practise".[1] Although this definition focuses on assessment, it is recognized that the process leading up to it should be formative, encouraging professional development as well as identifying those unfit to practice. Revalidation is thus one element within a larger system that has three objectives:

- to provide a system of professional accountability;
- to ensure that basic standards of care do not fall below acceptable standards; and
- to promote continuing improvements in quality of care.[2]

Drawing on a recently published policy brief and article[3,4] we discuss contextual factors influencing the choice of approach to revalidation, potential policy approaches, evidence relating to the different technical methods and some implementation options.

Policy context

One important factor contributing to concerns about life long learning in Europe is the European ExPeRT (external peer review techniques) project funded by the European Commission between 1996 and 1999. It identified four main external peer review models aimed at measuring the quality of service management and delivery: health care accreditation; the International Organization for Standardization ISO 9000 standards (accreditation standards initially designed for industry, but since applied to health care in radiology, laboratory systems and quality systems in clinical departments); the European Foundation for Quality Management Excellence Model (a self-assessment framework for applying external review to achieve quality standards); and *visitatie*, which is Dutch for 'visitation' or peer review-based schemes.[5] The ExPeRT team argued that within Europe convergence of quality assurance models is feasible, but depends upon the willingness of governments, health service providers, health care quality professionals and organizations to come together and adopt certain policy

The Observatory is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, the World Bank, the London School of Economics and Political Science and the London School of Hygiene & Tropical Medicine.

recommendations.[5] This consensus, in turn, requires complementing technical analysis with a more thorough policy analysis of power relations in European health systems.

Indeed, the potential to implement different quality assurance models varies among countries, reflecting the balance of power between the different stakeholders. For example, as mentioned in the case study on England in this issue, high-profile enquiries into situations where the behaviour of physicians has fallen short of expected standards have been used by politicians to strengthen government regulation of professionals. The case study on Germany suggests that in other countries, patients may be less questioning of physician competence, creating less demand for explicit accountability mechanisms. A further factor contributing to concerns about life long learning is increasing evidence of the scale of medical errors.[6] Although most involve broader system failures, they have contributed to concerns about physician competence.

Underpinning these developments is a growing recognition of the rapid pace of change in medicine and the way that skills and knowledge of medical professionals can erode over time. In a systematic review of the relation between experience and quality of care, 32 of 62 studies (52%) reported an association between decreasing performance and increasing years in practice for all outcomes assessed. This suggests that older doctors and those who have been practising for many years have less factual knowledge, are less likely to adhere to appropriate standards of care, and may also have poorer patient outcomes.[7]

A further dimension relates to the right to free movement by health professionals and patients. A number of high profile cases have placed the movement of patients within the European Union (EU) firmly on the political agenda. Somewhat less attention has been paid to the movement of health professionals. Professional mobility is based on the mutual recognition of professional qualifications, which assumes that someone registered to practise in one Member State remains competent to do so in all others. This is consistent with the principle of free movement enshrined in successive European Treaties; barriers should, therefore, be no more than absolutely necessary. This has led to calls for greater coherence internationally on how doctors are trained, registered and continually assessed. There is, however, surprizingly little understanding of how doctors are continually assessed in different Member States, who the regulators are, what methods of regulation are used, and how they are implemented.

Potential policy approaches

Whilst methods are still evolving in most of Europe and there is no obviously superior approach, there might be considerable unrealized scope to learn from the experience of countries with more developed systems of ensuring life long learning. A study of the experiences of New Zealand, Canada and the UK[8] has divided models for assessing continuing competence into two broad categories: the learning model and the assessment model, with the latter subdivided in to four further typologies. The models are summarized here and their current application in Europe has been noted.[3,4]

Learning model

Programmes under this model usually reward attendance at formal CME activities, self-assessment of learning needs, patient feedback, academic activities, and audits. Most are based on a continuous quality improvement concept. This model seeks to improve clinical competence but does not identify poorly performing physicians. Most countries in Europe employ this model, some in combination with other models.

Assessment model

The assessment of the practicing physician emphasizes performance as well as competence, and thus corresponds more closely with the idea of revalidation. Assessment tools have been adapted from those used in undergraduate and vocational education for the specific purpose of assessing the performance of practicing physicians. These include, for example, the interview, case-based oral examinations, record reviews, peer ratings, patient satisfaction questionnaires, and observing patient encounters. Four separate types of assessment were distinguished (Table 1)

Effectiveness of different methods

A major difficulty with ensuring fitness to practice is the lack of evidence on screening methods for physician assessment. In particular, reviews of evidence on the effectiveness of audit and feedback,[9] self-assessment,[10] multi-source feedback[11] and patient-reported outcome measures[12] reveal that while they can be effective in improving professional practice and quality of care processes, little is known about whether they improve patient health outcomes and whether they are cost effective. The evidence on CME and CPD[13] and recertification[14] suggests these methods can improve patient health outcomes, but again reliable cost effectiveness data is largely absent.

Regulation and enforcement arrangements

An international review (including Australia, Canada, Finland, the Netherlands, New Zealand and the US) of the regulation of physicians suggests that self-regulation predominates in European and international approaches to ensuring fitness to practise.[15] However, it seems that the so-called Anglo-American model of 'pure' self-regulation has shifted and become one of professionally-led regulation, with forms of co-regulation, or partnership regulation with statutory bodies or payers, becoming more common. This is seen as allowing for greater transparency and stronger accountability to external authorities. In some countries there have been moves to separate the bodies undertaking licensing from those hearing complaints, also reflecting concerns about protectionism. It has been argued that the separation of assessment bodies from other national bodies with advocacy roles is a major advantage for North American certifying bodies.[16] Linked to this is the question of responsibility for enforcement of assessment methods. There is widespread acceptance that this should be transparent but non-punitive, to respect the rights of both patients and physicians, with efforts

Table 1 Types of Assessment

Type	Description	Application
Responsive assessment	Entails the assessment of the performance of practicing physicians only on receipt of a complaint or report of a problem. Therefore, it cannot identify all those who are performing poorly.	Few, if any, countries in Europe rely exclusively on this model.
Periodic assessment for all	Entails a routine full assessment of all domains of competence for all physicians. This could include an assessment of patient outcomes, an evaluation of medical knowledge and judgement (a review of credentials), and the judgements of peers and patients.	This represents a very ambitious, if not unfeasible, approach and is not fully employed in any country in Europe.
Screening assessment for all	Evaluations are made against a set of specific criteria and the assessment aims to identify broader incompetence by focusing on certain quality indicators. Peer ratings, self-assessment questionnaires, and patient questionnaires can be used for screening tests. However, no single simple screening test has been discovered that will reliably, validly, and practically indicate poor performance.	This model has been adopted in Austria, France, Hungary, Ireland, the Netherlands, Slovenia and the United Kingdom.
Screening a high-risk group	Involves identifying a high-risk group for intensive scrutiny. One approach is to use a database to identify outliers in a set of indicators e.g. prescribing or referral patterns. Another is to identify a certain group of doctors who have been shown to have a higher risk of providing lower-quality care e.g. older doctors.	This type of targeting runs the risk of contravening privacy and human rights laws, and may not therefore work in practice and is not commonly used in Europe, although Norway, for example, does require renewal of licenses of physicians aged over 75 and Slovakia and Switzerland of physicians over 70.

focused on professional development and the identification of the few 'bad' physicians.[17]

An important dimension of the health care system that varies considerably across countries and has a major impact on the regulation of professional practice is the availability of information. Well functioning information systems are needed for many forms of audit, linked to valid patient outcome measures. Countries with sophisticated health informatics systems and functioning electronic health records will have an advantage.

Conclusions and implementation considerations

There is a climate favouring some form of continuing assessment of fitness to practice in a number of countries in Europe. However, there are several issues which need to be considered by policy makers.

In terms of the goals of revalidation, most countries recognize the importance of continually improving physician performance and have therefore introduced CME or CPD. However, it is also not clear that any system would, for example, have been able to prevent the emergence of criminal practices by physicians such as Harold Shipman in the UK (see case study). This is especially important given the enormous cost of some systems, making it essential to avoid the diversion of large numbers of physicians into monitoring activities at a time when many countries are facing physician shortages, as well as the possibility of unintended consequences e.g. barriers to innovation. Nevertheless, it is likely that in countries undergoing health sector reforms, typically reflected in the separation of purchaser and provider and the increased managerial role of the government, there will be increasing pressure to develop enhanced quality control mechanisms.

Which actor within the health care system is best suited to take responsibility for assessing physicians' performance is also unclear, although there seems to be consensus that self-regulation is more willingly accepted than government regulation, reducing incentives for opportunistic behaviour and non-compliance. Some commentators have argued that over-zealous regulation could actually erode, rather than increase trust in professionals and public services by reinforcing a culture of suspicion.[18] Perhaps reflecting increased awareness of these issues, forms of co-regulation or partnership regulation between professional and statutory bodies or payers are becoming more common.

It is also important that in situations where physicians are competing, self-regulation does not become a vehicle for personal animosities. These considerations will be especially important in some of the former communist countries where there are many examples of controls on the medical profession being abused during the communist era. A potential solution to these issues is the separation of assessment bodies from other national bodies with advocacy roles, as in the case of North American certifying bodies.[16]

The most effective method of enforcement of physician assessment is also not clear, and a different balance of incentives and penalties is likely to work best in each country. The most severe penalty currently employed is the removal of the

license to practise. A less severe version is the loss of certification, as in the US where certification is not a legal requirement to practise medicine. It should be noted that crucial to the effectiveness of the US system of recertification is that it was introduced only after stepwise evaluation and validation of the assessment methods over a long period of time[16] suggesting that countries considering introducing such a system should proceed gradually.

Importantly, policy makers must consider how to finance life long learning. Many countries have experienced great difficulties with raising the necessary resources to implement even the most basic physician performance policies, such as CPD. A solution to this has been to look to the private sector, specifically the pharmaceutical industry, to support such activities. A potential problem here is that the pharmaceutical industry is then able to drive the agenda in terms of the content of the CDP sessions. In countries where the pharmaceutical industry is a major funder of CPD and other physician performance improvement and assessment programmes, the government should consider establishing an independent regulatory body to set the agenda in line with the needs of the health care system.

Finally, the scarcity of data and information as well as diversity in practices suggest that there is an unmet need for a forum on the regulation of the medical profession, where countries would be required to report on practices, evidence and challenges, with the aim of eventually drawing up European recommendations. At the European Commission level, there was a statement at a 2006 meeting of the High Level Group on Health Services and Medical Care that the group plans to consider "European and global issues of continued professional development (CPD)" but currently a new Directive on health professionals does not appear to be on the agenda.

References

1. Pringle M. *Revalidation of Doctors: The Credibility Challenge*. London: The Nuffield Trust; 2005.

2. Sutherland K, Leatherman S. Does certification improve medical standards? *BMJ* 2006;333:439–441.

3. Merkur S, Mladovsky P, Mossialos E, McKee M. *Do Lifelong Learning and Revalidation Ensure that Physicians are Fit to Practise?* Policy Brief: Health Systems and Policy Analysis. Copenhagen: World Health Organization, on behalf of the European Observatory on Health Systems and Policies, 2008.

4. Merkur S, Mossialos E, Long M, McKee M. Physician revalidation in Europe. *Clinical Medicine* 2008;8:371–76.

5. Heaton C. External peer review in Europe: an overview from the ExPeRT Project. External peer review techniques. *Int J Qual Health Care* 2000;12(3):177–82.

6. Kohn L, Corrigan J, Donaldson M. *To err is Human: Building a Safer Health System*. Washington DC: National Academy Press; 1999.

7. Choudhry NK, Fletcher RH, Soumerai SB. Systematic Review: The relationship between clinical experience and quality of health care. *Ann Intern Med* 2005;142:260–73.

8. St George I, Kaigas T, McAvoy P. Assessing the competence of practicing physicians in New Zealand, Canada, and the United Kingdom: progress and problems. *Fam Med* 2004;36(3):172–77.

9. Jamtvedt G, Young JM, Kristoffersen DT, O'Brien MA, Oxman AD. Audit and feedback: effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews* 2006, Issue 2. Art. No.: CD000259.

10. Davis D, Mazmanian PE, Fordis M, et al. Accuracy of physician self-assessment compared with observed measures of competence: a systematic review. *JAMA* 2006;296:1094–102.

11. Lockyer, J. Multisource feedback in the assessment of physician competencies. *J Contin Educ Health Prof* 2003;23(1):4–12.

12. Marshall S, Haywood K, Fitzpatrick R. Impact of patient-reported outcome measures on routine practice: a structured review. *J Eval Clin Pract* 2006;12(5):559–68.

13. Marinopoulos SS, Dorman T, Ratanawongsa N, Wilson LM, Ashar BH, Magaziner JL, Miller RG, Thomas PA, Prokopowicz GP, Qayyum R, Bass EB. Effectiveness of continuing medical education. *Evid Rep Technol Assess* 2007;149:1–69.

14. Sharp LK, Bashook PG, Lipsky MS, Horowitz SD, Miller SH. Specialty board certification and clinical outcomes: the missing link. *Acad Med* 2002;77:534–42.

15. Donaldson L. *Good Doctors, Safer Patients: Proposals to Strengthen the System to Assure and Improve the Performance of Doctors and to Protect the Safety of Patients*. London: Department of Health; 2006.

16. Dauphinee WD. Self regulation must be made to work. *BMJ* 2005;330:1385–87.

17. Kmietowicz Z. Revalidation must serve doctors and the public. *BMJ* 2005;330:1385–87.

18. O'Neill O. *A Question of Trust: The BBC Reith Lectures 2002*. Cambridge: Cambridge University Press; 2002.

Philipa Mladovsky is Research Officer at the European Observatory on Health Systems and Policies and LSE Health, the London School of Economics & Political Science.

Sherry Merkur is Research Officer at the European Observatory on Health Systems and Policies and LSE Health, the London School of Economics & Political Science.

Elias Mossialos is Co-Director of the European Observatory on Health Systems and Policies, Director of LSE Health and Professor of Health Policy at the London School of Economics & Political Science.

Martin McKee is Head of Research Policy at the European Observatory on Health Systems and Policies and Professor of European Public Health at the London School of Hygiene & Tropical Medicine.

Revalidation of the medical profession in Germany

Sophia Schlette and David Klemperer

Germany does not have a powerful or independent revalidation system for physicians. Linguistically and culturally, the very term does not translate well into our language, and in fact, rather than using the terms revalidation or recertification it is more common to speak of 'displaying' or 'exhibiting' quality or professional skills.[1–4] In this context, therefore, requirements for continuing medical education (CME), quality management (in both private practice and hospitals), and disease management programmes (DMPs) for selected chronic conditions act as indirect means of demonstrating physicians' professional aptitude.

Physicians have long objected to any attempts to introduce tighter enforcement rules for quality surveillance, performance measurement and (malpractice) accountability. Rules for quality management and CME were last reformed in 2003 as part of a major health reform (SHI Modernization Act, SGB V §135a (2), §137 (1))*. However, even with the current compulsory, peer-led internal reviews, voluntary external quality reviews and conventional CME, the 'quality display' system largely remains a mere formality. The situation is further complicated by the fact that several bodies are involved in overseeing CME and quality assurance (Table 1), and that the various functions fall under two separate legislative spheres – social legislation (where the federal government sets the framework), and professional self-regulation (which falls under the states (*Länder*)).

It is worth noting that both the CME and quality management systems were introduced by the government against the will of the professional bodies; yet implementation and oversight fall under the latter's remit. Moreover, CME and quality management requirements are not aimed at identifying poor or harmful practice or dysfunctional practitioners. Quality management is geared to improving practice management with a focus on structure and process rather than on performance or professional fitness to practice.

Another related aspect is the strengthening of quality improvement and care coordination via disease management programmes (DMPs), introduced in 2002. DMPs are administered by the social health insurance (SHI) funds for six chronic conditions. Participating doctors agree to follow evidence-based treatment guidelines and documentation protocols, and to participate in evaluations.

Table 1: Regulatory bodies in Germany

Regulatory body	Area of responsibility
Federal Joint Committee (FJC)	Determines benefit basket for SHI members, Sets framework for quality management Issues guidelines for disease management programmes Commissions comparative effectiveness research
Federal Agency for Quality Assurance (BQS)	Carries out mandatory external quality comparisons of hospitals
SHI physicians associations (KVs)	Promote quality improvement (§136 SGB V)
Chambers of physicians (ÄKs)	Self-regulate the profession
Medical Specialty Societies	Contribute expertise

A plethora of regulatory bodies

In Germany there is no single independent body that regulates CME, quality management, or alert systems. At least four self-governance and professional bodies are involved in oversight, approval and control measures. They act at various levels of government and sectors of care and are fairly independent of each other.

Germany's paramount self-governance body is the Federal Joint Committee (FJC). Established in 2004, among other important regulatory powers, it issues binding guidelines for quality management and DMPs, and determines indicators for public reporting. The Ministry of Health oversees the FJC and can veto its decisions only on formal grounds.

The regional chamber of physicians (ÄK) approves CME courses and seminars for credit points. The regional associations of Social Health Insurance (SHI) physicians (KVs) support quality circles and provide tools and advice on how to run them. At the federal level, KV has developed its own quality management certificate, known as QEP, which is the most widely used in ambulatory care.**

* http://www.gesetze-im-internet.de/sgb_5/__135a.html. See also SHI Modernization Act (GKV-Modernisierungsgesetz), § 75 Abs. 7 SGB V, § 91 Abs 5 SGB V, § 92 SGB V, § 95d SGBV, §135a (2) SGB V, (§136 SGB V), §137 (1) SGB V, www.bmg.bund.de

** See Federal Association of Statutory Health Insurance Physicians: www.kbv.de

The Federal Agency for Quality Assurance oversees and coordinates quality reports and public reporting of selected indicators for all hospitals registered to provide care to SHI members.

Critics point out that the hybrid character of these self governing entities (with the exception of the FJC, where payers, providers and patients are equally represented) creates internal contradictions. On the one hand, bodies such as the regional SHI physicians associations must fulfil their role under public law to deliver high quality health care to patients by securing professional standards, while on the other hand, they also represent the interests of their professional membership.*

Continuing medical education

The CME process is mandatory and self-regulated. With the 2003 reform, a countrywide credit-point system was established, replacing former CME practice which had been entirely non-binding and entailed no professional or financial penalties whatsoever. Physicians registered to practice within the SHI system now have to 'display' proof of CME measures every five years (§ 95d SGBV). Self-governance bodies have interpreted this requirement to mean that SHI physicians have to achieve 250 CME points in a five-year period.** Ambulatory care doctors have to report earned CME points to their regional KV to maintain their licence to work within the SHI system. Certification is entirely voluntary for the tiny minority of physicians who do not have contracts with the SHI funds.

The content of vocational courses is not defined, and the bar for offering a course, seminar, or conference that qualifies for credit points is not very high. CME activities have to be submitted for approval to the regional ÄK, following a standardized protocol. The request has to be signed by a physician; any physician with a German licence can do this, certifying with his or her signature the academic rigour of the programme. Importantly, the CME system is not modelled to meet doctors' learning needs. As most CME courses are offered and funded by commercial sponsors, it is more the marketing needs of the health care industry than the learning needs of doctors that influence the CME topics on offer.***

GPs and specialists contracted with the SHI funds and working in ambulatory care are not subject to detailed regulations on the topics that must be covered by CME. However, for hospitals and for some specialties, specific requirements have been put in place, both in terms of the minimum number of cases seen or procedures performed and in terms of vocational training. For example, specialists working in hospitals have to show that 70% of their vocational training has been on topics in their specialty. Radiologists are subject to an additional recertification procedure if they read mammograms.

Quality management

In Germany, the term 'quality improvement' is not used widely; instead, we 'assure' and 'manage' quality, based on the assumption, of course, that quality is already good or excellent. 'Quality improvement', a notion that would acknowledge failures and weaknesses, runs against professionals' self-image and the public's expectations concerning medical providers.

Since 2004, all health facilities in Germany have been required to establish an internal quality management system. While the SHI Modernization Act leaves detailed regulation to self-governance entities, the aim is to boost the quality, transparency, and accountability of medical establishments.

A range of external, voluntary quality management certification programmes exist. These evaluate whether quality management systems have been put in place. They do not measure how well a practice does in terms of structure, process, or outcome. Some are doctor driven (European Practice Assessment, EPA), some were developed by professional bodies (Quality and Development in Medical Practices, QEP), some apply industry quality management standards to medical practice (ISO), and others draw upon European standards (EFQM, ISO). To some extent, they all try to capture the views of the public, patients and non-medical staff.

Since certificates are entirely voluntary, they provide a way for doctors to stand out from other, non-certified doctors. In addition, KVs offer a range of self-administered, internal quality assessment tools that they encourage every practice to apply.[5,6]

Hospitals

The most impressive progress has been made in the hospital sector. The Federal Agency for Quality Assurance (BQS) oversees mandatory quality reporting and since 2002, about a quarter of German hospitals also have used a voluntary certification system known as KTQ (Kooperation für Transparenz und Qualität im Gesundheitswesen – Cooperation for Transparency in Healthcare, see www.ktq.de).

Moreover, a relatively new tool is currently being piloted in 700 non-profit, church-owned hospitals; the Patient Experience Questionnaire (PEQ) has been developed to capture patients' experience of hospital care (www.weisse-liste.de). Along with the requirement to

* See Conflict of Interest Debate in Germany: http://forum-gesundheitspolitik.de/artikel/artikel.pl?artikel=1559 accessed May 17, 2009

** The first five-year period ended in June 2009. Requirements for CME can be found at: www.bundesaerztekammer.de/page.asp?his=0.2.23.2271.2358.2359.2360.2361&all=true, accessed May 13, 2009..

*** However, echoing international calls to end the industry's influence on CME, in Germany, too, we observe a slow change in attitude and doctors' growing awareness of potential conflicts of interest with sponsored CME.

maintain an internal quality system documenting quality, structures, processes, minimum numbers of interventions, and the completion of specific training requirements for specialists, hospitals now have to publicly report on 27 outcome indicators to inform the public and to facilitate patient choice. (See www.bqs-qualitaetsindikatoren.de). Hospitals follow a standard protocol submitted to a BQS regional office. Data are then collected in a country-wide database, and outliers or unusual activity leads to a procedure called 'structured dialogue'. If a hospital can adequately explain the deviation, the case is closed; however, if there is problem with quality, the hospital will be monitored more closely.

In contrast to quality management and CME in ambulatory care, which still tend to be a rubber-stamping exercise, the BQS system does deserve credit: worldwide it is the largest hospital reporting system where quality outcome indicators have to be published in lay-friendly language. Implementation, however, has been criticized, and the reports are still far from user-friendly.[7]

Ambulatory care

Ambulatory care providers can choose from a variety of accredited certifying agencies to obtain a voluntary quality management certificate.* Practices are strongly encouraged to carry out a self-assessment with tools provided by the KVs before a formal assessment.

When a practice feels ready, it calls the certifying agency of its choice, which then organizes an 'unannounced' visit, carried out by a team of review-trained physicians, psychotherapists, and/or practice assistants. Reviewers – in Germany they are not called inspectors – spend a day (longer for a group practice with more than two physicians) examining the documentation required for internal quality management. Reviewers also conduct interviews based on structured questionnaires with the physician(s), practice team, and sometimes patients. A practice Quality Management certificate is issued for three years and thereafter, the practice can apply for recertification. Practices have to pay a fee for the three-year certification under the scheme they choose, which costs around €2000 for a single-handed doctor practice.

In a more recent development, a quality management guideline issued by the FJC in 2005 states that physicians and group practices have to introduce an internal quality management system by 2011. A random sample of at least 2.5% of SIH doctors have to document the status of quality management implementation in their practice. If the KV's quality commission feels that documentation is insufficient a doctor can be cited to appear before it to provide further information.[1]

A supplementary FJC guideline on quality control (2006) establishes that KVs have to carry out random reviews of at least 4% of all medical practices every year. If selected, a physician has to submit written documentation or images on 12 randomly selected patients within four weeks. The KV's quality commission assesses the documentation and grades the results into four categories: 'no objection', 'minor objection', 'considerable objection' and 'severe objection'.

If there are objections the KV can take a number of measures ranging from practice improvement recommendations, setting a timeframe to improve poor practice (*Nachbesserungen*) and carrying out on-site-visits. For the most severe failures the KV can reduce the physician's remuneration or reclaim payments already dispersed. Ultimately, the KV can withdraw a doctor's licence to treat patients insured in the SHI system.[2]

Conclusions

There are three main concerns underlying revalidation in Germany. The first is regulatory bodies' lack of independence from their professional interests, the second is physicians' attitudes towards quality measurement and accountability, and the third is the competing remits of social and professional law. All of these contribute to the health care system lacking a culture of quality assessment.

Among physicians, self-image remains high and unshaken; and complacency prevails. More modern, internationally recognized concepts such as Continuing Professional Development (CPD) still have not entered the medical community's language beyond lip-service. The term revalidation is used as a synonym for (re)certification, which really only means meeting relatively easy CME requirements; quality is 'assured' or 'managed' but not measured or improved; and training measures do not embrace more dynamic, improvement- and benchmarking oriented concepts like CPD.[8] It is this attitude, only slowly changing, that explains why it is so difficult to establish a revalidation system that can improve the performance of every doctor and also detect failing or harmful practices.

Currently there are no plans to introduce a more powerful system of revalidation. Despite the fact since 2002 federal health ministry leaders have enjoyed an exceptionally long period of uninterrupted government and have become very savvy in curbing doctors' resistance to recent reforms, the regulatory strength at their disposal has not been applied to rethink revalidation. This remains a thorny issue, as decision-making powers remain divided between professional self-regulation and social legislation, and between state and central levels of competency.

* Some of the certifying agencies are accredited by the KVs, which of course raises questions about their independence.

References

1. Federal Joint Committee 2005. *Qualitätsmanagement-Richtlinie vertragsärztliche Versorgung* [Guidelines for Quality Management]. Available at www.g-ba.de/downloads/62-492-3/RL_QM-Vertragsarzt-2005-10-18.pdf [accessed 28 April 2009].

2. Federal Joint Committee 2006. *Qualitätsmanagement-Richtlinie vertragsärztliche Versorgung* [Guidelines for Quality Management]. Available at www.g-ba.de/downloads/62-492-16/RL_Qualitaetspruefung_2006-04-18.pdf [accessed 13 May 2009].

3. Jonitz G. Statement at press conference, KTQ-Forum, Berlin, 24 November

2008. Available at www.baek.de/page.asp?his=0.5.1160.6841

4. Klemperer D. Erfahrungen mit Methoden der systematischen Kompetenzdarlegung und Rezertifizierung in der Medizin in Kanada [The Canadian experience with methods of systematic assessment of performance and revalidation in medicine]. *Bundesgesundheitsblatt* 2006;49;418–25. Available at http://kurse.fh-regensburg.de/kurs_20/kursdateien/R/2006-06bgb2.pdf

5. Heilberufe-Kammergesetz – HkaG Bayern. Available at www.blaek.de/pdf_rechtliches/haupt/hkag16112002.pdf [accessed 12 May 2009].

6. Walger M. Zukünftige Rolle der Zertifizierung im stationären Bereich. Tagung des BMG und des G-BA „Sicherung der Qualität im Gesundheitswesen: Ergebnisse und Perspektiven". [Future role of certification in the hospital setting. BMG and G-BA Conference "Assuring quality in the health service: results and perspectives"]. Powerpoint presentation, Berlin 2–3 May 2007. Available at www.g-ba.de [accessed 28 April 2009].

7. Norgall T. Qualitätsberichte der Krankenhäuser: eine vertane Chance. *Deutsches Ärzteblatt*, Jahrgang 104, Heft 2007;34–35, A-2367

8. Ansorg J and Betzler M. Von der kontinuierlichen medizinischen Fortbildung zur kontinuierlichen professionellen Entwicklung am Beispiel der chirurgischen Fortbildung [From continuing medical advanced training to continuing professional development, the example of surgical advanced training]. *Bundesgesundheitsblatt* 2006;49;426–32.

Sophia Schlette, MPH, Director of the International Network Health Policy & Reform at the Germany-based Bertelsmann Stiftung, is currently on sabbatical with Kaiser Permanente's Institute for Health Policy as senior international adviser.

David Klemperer is a medical doctor and Professor of Social Medicine and Public Health at the University of Applied Sciences Regensburg. He was also scientific adviser for a state health ministers' CPD working group.

Physician revalidation in the United Kingdom

Andrew F Goddard

The revalidation of doctors in the United Kingdom has undergone significant reorganization in the past two years since the conviction of a general practitioner named Harold Shipman for the murder of at least 218 of his patients between 1972 and 1998. The ensuing enquiry was highly critical of the profession's regulatory body, the General Medical Council (GMC), and made strong recommendations for change.[1] Three key documents from the Department of Health have since laid out a structure for revalidation, as it applies to all doctors in the UK, to be implemented over the next few years.[2–4] From now on, revalidation will be formalized into a single process over a five-year cycle with the two outcomes of re-licensing and specialist re-certification.

Re-licensing

Re-licensing is the recognition of a doctor's fitness to practise. The first 'licenses to practise' will be awarded late in 2009. Previously, in order to practice medicine in the UK, a doctor needed only to be registered with the GMC and to be re-certified annually on payment of a fee. Doctors can now choose to be registered with a license to practise, registered without a license to practise or be unregistered. Only the first group of doctors can practise in the UK in the National Health Service (NHS) or the private sector. Licenses will be issued by the GMC which also will continue to hold the Medical Register, as it has done since 1858.

Specialist re-certification

Specialist re-certification is the recognition of a doctor's competency to practise in a particular field of medicine. In the UK, doctors are entered onto a 'specialist register' according to their specialty. There are separate registers for hospital specialists and general practitioners.

Annual appraisals

Both re-licensing and re-validation will depend on the successful outcome of five annual appraisals. The annual appraisal will be conducted by a senior doctor within the same organization, usually in the same specialty, and at each appraisal a portfolio of supporting information will be provided by the doctor to demonstrate a high standard of practice in relation to twelve key 'Attributes' set out by the GMC (Box 1).

At the end of the five-year period a recommendation is made to the GMC for re-licensing and re-certification by a 'Responsible Officer' who, for most physicians working in the NHS, will be the Medical Director of their primary care or hospital trust. The Royal Colleges and specialist societies will provide quality assurance for the process of revalidation, as well as be responsible for the setting of standards in the appraisal process.

Therefore, the annual appraisal is central to the revalidation process. The appraisal will review five key areas of performance of an individual doctor: feedback from colleagues; feedback from patients; untoward incidents; complaints; and continuing professional development (CPD). Feedback from colleagues will take the form of a '360° appraisal', also called multi-source feedback (MSF). This has been well validated in UK hospital trainee doctors and an MSF tool for trained doctors has been extensively piloted and validated by the Royal College of Physicians (RCP). Feedback from patients will be collected via a validated questionnaire, one of which has also been

developed by the RCP. Individual doctors will have been expected to keep a reflective log of untoward incidents and complaints, although hospital trusts are increasingly keeping their own databases of complaints against their employees.

Continuing professional development

CPD will be the method by which physicians will keep their knowledge and skills up to date. The supporting information that will confirm the quality of a doctor's practice will take a number of forms, and participation in relevant CPD to the RCP's standards will be one of these. Most physicians in the UK already keep an electronic portfolio of CPD which is held and run by the RCP. Educational events are assessed by the RCP for this process and are awarded 'points' according to their content and length. The RCP and specialist societies are currently establishing recommendations for other assessment tools and will be responsible for standard setting. The use of knowledge-based assessments (as used in the USA) is not popular amongst physicians, but there is increasing acceptance that directly observed assessments of procedural skills will be introduced over the coming years.

Participation in national audit programmes, local and national quality improvement programmes and service accreditation programmes will demonstrate on-going professionalism. Outcome data, including involvement in clinical audit, may be used to demonstrate improvements in practise, although it is accepted these may test a particular unit's performance rather than an individual doctor in certain multidisciplinary specialties. The quality of patient care has become the main thrust of the current UK health policy and there is no doubt that demonstrating high quality outcome measures, when developed and validated, will be used in revalidation.

Appraisal outcomes

It is expected that almost all doctors will be recommended for re-licensing and re-certification. Where there are relatively minor concerns about a doctor's performance there will be a process of local support and remediation through the employer. Those who are not will be referred to the National Clinical Assessment Service (NCAS) and/or the GMC. They may then be investigated through the GMC's 'fitness to practise' processes. Doctors can also be referred to the GMC by patients, colleagues and managers outside of the normal revalidation process. There is a hierarchy of investigation into an individual doctor's fitness to practise, which can ultimately lead to their removal from the medical register and thus their right to practise medicine in the UK. This type of process is well established in the UK as the GMC has been in place for 150 years.

Box 1: The GMC 'Key Attributes'

A doctor should:

1. Maintain their professional performance
2. Apply their knowledge and experience to practice
3. Keep clear, accurate and legible records
4. Put into effect systems to protect patients and improve care
5. Respond to risks to safety
6. Protect patients and colleagues from any risk posed by their health
7. Communicate effectively
8. Work constructively with colleagues and delegate effectively
9. Establish and maintain partnerships with patients
10. Show respect for patients
11. Treat patients and colleagues fairly without discrimination
12. Act with honesty and integrity

Prospects

The changes to revalidation discussed above have been cautiously welcomed by the profession. There is no doubt that the profession needs to demonstrate that it is performing to a high standard and 'keeping its house in order'. Improvements in the quality of health care should be championed and revalidation will help this. However, many fear the process will involve considerable administration and thus use up time, which could be otherwise spent with patients. Some believe the new revalidation processes will not detect another Harold Shipman. However, the new processes, properly applied, should improve the professional standard of the majority of doctors, and reduce the likelihood of harm to patients.

References

1. *Safeguarding patients: Lessons from the past – Proposals for the future*. www.the-shipman-inquiry.org.uk/fifthreport.asp

2. Department of Health. *Good doctors, safer patients: Proposals to strengthen the system to assure and improve the performance of doctors and to protect the safety of patients*. Crown, London, 2004. www.dh.gov.uk

3. Department of Health. *Trust, assurance and safety: the regulation of health professionals*. Crown, London, 2007. www.dh.gov.uk

4. Department of Health. *Medical revalidation – principles and next steps: The report of the Chief Medical Officer for England's working group*. Crown, London, 2008. www.dh.gov.uk

Dr Andrew F Goddard is Director, Medical Workforce Unit, Royal College of Physicians, London, UK.

Physician revalidation in Austria

Thomas Czypionka

In Austria, there is no comprehensive formal procedure for the revalidation of physicians (with the exception of emergency physicians) as defined by the General Medical Council in the United Kingdom.[1] However, there are two separate measures in place that try to ensure the quality of physicians' work.

The diploma programme for CME

The Physicians' Act makes continuing medical education (CME) mandatory and obliges physicians to treat patients in accordance with the current state of medicine (Section 49). The Austrian Medical Association (Österreichische Ärztekammer (ÖÄK)) is responsible for specifying CME requirements through a directive which outlines the "diploma programme for CME"[2] but participation in this programme is voluntary.

In order to obtain the diploma physicians have to collect at least 150 credits over a period of three years. Of these credits, 30 can be chosen freely, whereas 120 have to be specific to the physician's specialization. At least one third of credits have to be obtained through attending courses, while the rest may be acquired by other means such as e-learning, participating in quality circles, and publications. One credit is equal to a teaching unit of 45 minutes and published scientific articles yield 2–5 credits. Diplomas are awarded by the ÖÄK and are valid for three years.

The organizers of course modules must be accredited by the ÖÄK and have to meet certain standards reviewed by approbators for each specialty. CME accreditation can be obtained for all or just some specializations/GPs. For some reason, however, it is the president of the ÖÄK who decides on the actual accreditation conferred.

The Medical Associations at the federal and regional levels and their Academy offer most of the CME courses, but some also are organized by scientific medical societies, hospitals and the medical universities. Many of the CME courses in Austria are sponsored by the pharmaceutical industry. International CME events (such as courses and conferences) attended by a physician have to be submitted for validation by the ÖÄK. However, no validation is necessary for courses accredited by the German Medical Associations or the European Accreditation Council for Continual Medical Education (EACCME) of the European Union of Medical Specialists (UEMS).

The Agency for Quality Assurance (ÖQMed)

In 2001 an attempt was made to introduce the mandatory evaluation of doctors' offices through an amendment to the General Social Insurance Act (Section 343(5)). However, it was never put into practice and was subsequently annulled following doctors' insistence that evaluation is a matter of professional self-regulation. Therefore, the 5th amendment to the Physicians' Act introduced in 2004 brought an important innovation in that it provided for the foundation of a separate agency for quality assurance charged with the evaluation of all office-based physicians (Section 118a). However, this agency, ÖQMed, is a limited liability company owned exclusively by the ÖÄK.

ÖQMed is responsible for developing quality criteria and using them in quality surveys carried out through compulsory questionnaires sent to physicians. ÖQMed is also authorized to conduct office visits. Any deficiencies detected should be remedied within a reasonable period of time and contraventions constitute grounds for the Agency to instigate disciplinary action before the ÖÄK. The statutory health insurance organizations can demand to see the evaluation results of their contracting physicians and in the case of an office visit, can send a representative of their own. The Ministry of Health receives the agency's survey data but only in anonymized form.

A scientific advisory board with an equal number of representatives from the ÖÄK and the Ministry of Health supports ÖQMed's work. One of the representatives of each group is required to have experience in representing patient interests. If a stalemate is reached in a decision, the chairman of the board (currently a member of the ÖÄK) has the decisive vote. However, this scientific advisory board has not been convened since 2004.

The evaluation criteria for physician surveys are laid down by the ÖÄK[3], subject to approval by the Ministry of Health, and are valid for a five-year period. The basic evaluation questionnaire contains 37 questions assessing structural quality and 26 focussing on process quality, accompanied by some explanatory notes.* These questions have to be answered either with a 'yes' or 'no' (or in some cases with 'not applicable').[4] In addition, a further 10 to 60 specific questions are asked for each specialty, again requiring either a 'yes' or 'no' answer. By 2008, all doctors' offices had been evaluated once. However, it is unclear as yet how often the procedure will be repeated.

Several aspects of the process can be criticised:[5] the simple transformation of quality criteria into dichotomous questions, the lack of quantitative measures and the fact that the quality criteria are not very specific. Moreover, on-site visits are not a regular part of the evaluation and survey answers are verified only in a random sample, with practices being notified six weeks in advance. Importantly, there is no clear protocol outlining what happens if criteria are not met repeatedly or deficiencies remedied. Above all, the whole process is not embedded in any continuous quality improvement mechanism, and there is no international expert on the scientific advisory board.

* The questions basically correspond to the evaluation criteria set out by the Austrian Medical Council.

Revalidation: a mirror of stakeholder influence?

The two approaches aimed at improving physicians' fitness to practise demonstrate the strong stakeholder position of the ÖÄK. In principle, CME is compulsory, but at the same time, physicians do not have to prove their efforts. Moreover, the evaluation of doctors' offices, originally placed under the remit of the social health insurance organizations, could not take effect until the function was transferred to the control of ÖÄK. The resulting evaluation procedure is relatively easy for physicians to pass, with poorly defined consequences in cases of non-compliance and no transparency of results for the public. This rather awkward relationship between the Austrian Medical Association and matters of quality assurance is also reflected in its reluctance to adopt medical practice guidelines.[4] In any case, it would be true to say that the establishment of the office-based evaluation procedure has not promoted in any way the spirit of quality management, nor has it provided the impetus to establish more formal physician revalidation mechanisms.

References

1. General Medical Council. *Developing medical regulation: a vision for the future. The GMC's response to the call for ideas by the review of clinical performance and medical regulation*. London: GMC, 2005.

2. ÖÄK. *Verordnung der Österreichischen Ärztekammer über eine Richtlinie für die laufende fachliche Fortbildung von Ärzten.* ÖÄK, 2007. Available at www.aerztekammer.at/pdf/DFP.pdf

3. ÖÄK. *Qualitätssicherungsverordnung*. ÖÄK, 2006. Available at http://www.aerztekammer.at/service/QS_VO2006.pdf

4. Czypionka et al. Clinical practice guidelines: A quality instrument comes of age. Health System Watch IV/2006. *Fachzeitschrift für Soziale Sicherheit* (Supplement) [Journal of Social Security] 2006;11(58). English version available at http://www.ihs.ac.at/departments/fin/HealthEcon/watch/hsw06_4e.pdf

5. Czypionka et al. Quality assurance in medical practices: A European perspective. Health System Watch II/2006. *Fachzeitschrift für Soziale Sicherheit* (Supplement) [Journal of Social Security] 2006;6(58). English version available at http://www.ihs.ac.at/departments/fin/HealthEcon/watch/hsw06_2e.pdf

Dr Thomas Czypionka, Institut für Höhere Studien, Vienna.

I would like to thank Mag. Schaffler and Mag. Joy Ladurner for valuable input.

Revalidation of doctors in France

Karine Chevreul

In France the participation of doctors in learning or self-evaluation activities is not part of a formal re-certification or re-licencing process; instead it forms part of a revalidation process that focuses on updating and improving physicians' medical knowledge and skills. Continuing Medical Education (CME) was first developed on a voluntary basis in the 1960s on the initiative of medical professionals; it was managed mainly by not-for-profit CME associations and financed by the pharmaceutical industry. In the 1970s special funds, to which doctors contributed (currently around €50 per year), were set up to finance professional education. Therefore, many doctors' unions that were short of funds developed CME programmes as they were an easy source of resources. Since the early 1990s CME has been part of the framework of national agreements signed by the doctors' unions and the National Health Insurance (NHI) system, and as such it is used as a negotiation tool with the unions. The NHI also partly finances CME programmes and ensures that doctors are paid an allowance for participating in such programmes.

During the 1990s, after several decades of cost-containment measures based on controlling the volume and price of medical services and goods, the government developed a new initiative – the 'medical based cost-containment concept', which aims to minimize losses in quality, efficiency and equity due to variations in medical practice. Revalidation became one of the tools of this process, and a major health care system reform in 1996 made CME mandatory for self-employed as well as salaried doctors, thereby providing the basis for its formal organization.

From 1999, an additional tool was developed – the evaluation of professionals' practices (EPP). This is a form of medical audit, similar to formative assessments, that aims to improve the quality of care through the provision of peer feedback on doctors' patterns of practice compared to practice guidelines issued or endorsed by the national health authority (HAS) or the national drug agency (AFFSAPS). However, as relations between doctors on the one hand, and the government/health insurance funds on the other, were not good at the time, doctors did not perceive EPP to be a beneficial activity that increased the quality of their practice; rather, they saw it as a time consuming administrative task and participation was low. In response, the voluntary EPP process was made compulsory in 2004.

Governance failures and slow uptake

For over 10 years, despite it being compulsory, the number of doctors participating in learning activities has remained very low, particularly for self-employed doctors. This is partly explained by the fact that the governance of both CME and EPP has remained very weak. A General Inspectorate for Social Affairs

THE EUROPEAN OBSERVATORY ON HEALTH SYSTEMS AND POLICIES IS A PARTNERSHIP BETWEEN

World Health Organization Regional Office for Europe | Government of Belgium | Government of Finland | Government of Norway | Government of Slovenia | Government of Spain | Government of Sweden | Veneto Region of Italy | European Investment Bank | World Bank | London School of Economics and Political Science | London School of Hygiene & Tropical Medicine

(IGAS) report[1] highlights several reasons for this. First, in the same year that EPP was made compulsory, other public health legislation changed CME governance without taking into account the EPP process. Thus, the boundaries between the two activities are fuzzy and difficult for doctors to understand. Second, the organizational structures in charge of ensuring the quality of CME programmes and monitoring the actual implementation of CME and EPP obligations are the result of ad hoc legislation and policies which never became fully operational. National CME committees are responsible for defining what doctors should achieve within a five-year period to fulfil the CME requirement while CME regional committees list the eligible providers of CME programmes and monitor doctors' records of achievement. However, no information system exists to monitor completion records and no budgets have been allocated to these committees, undermining their effectiveness. Moreover, although legislation states that non-compliance can lead to sanctions these have never been defined and there are no effective penalties.

In 2006 the criteria for CME and EPP requirements were finally defined and activities were assigned specified numbers of credits. There are currently four categories of activities that accrue credits: (1) CME sessions; (2) EPP sessions; (3) participation in education and research activities within representative bodies and activities for improving the quality and organization of care; and (4) individual CME supporting activities such as producing teaching materials, reviews, books, telemedicine and e-education activities. Doctors have to obtain 250 credits in every five-year period: two-fifths from EPP and the remainder from the other categories. CME regional committees* inform the regional medical associations (physicians' regulatory bodies) when doctors do not comply, and they are offered programmes to catch up with their CME requirements. The law does not provide information on the consequences for refusing to comply with the system. However, it can be assumed that the medical association could suspend a physician's license. An additional shortcoming is that the current CME framework does not set priority topics or national policies and does not guarantee independence from the pharmaceutical industry. Indeed, the latter is the main funder of CME through financing or organizing sessions for doctors and it is sometimes difficult to disentangle what activities are related to marketing and what promote medical education. While the overall level of CME funding by the pharmaceutical sector is difficult to assess, it was estimated to be around €300 - 600 million in 2006, at least 2.5–5 times higher than the other sources of financing altogether.[2]

PCD: light at the end of the tunnel?

In order to address these problems, a new law has just been passed (in June 2009). It replaces EPP and CME with the concept of 'Professional Continuous Development' (PCD). In order to improve governance public, professional education and NHI funds will be merged into a single fund. A national committee, representing multiple stakeholders, has been established to define a list of priority topics for CME. However, more detailed legislation setting out the organizational processes that will drive PCD has not yet been issued. It is still not known whether the new arrangements will build on what already has been achieved or if this further reform will start from scratch, changing CME processes, organizational structures and compliance requirements. Another important question is whether the reform will be able to achieve better results without allocating any new resources to the overall process.

References

1. Autume C, Postel-viney D. *L'organisation juridique, administrative et financière l'organisation juridique, administrative et financière de la formation médicale continue des professions médicales et paramédicales*, IGAS rapport n°2006 002, la documentation française, 2006. Available at www.ladocumentationfrancaise.fr/rapports-publics/064000180/index.shtml

2. Bras PL, Duhamel G. *La formation médicale continue et évaluation des pratiques professionnelles des médecins*, IGAS rapport n°2008-124p, 2008. Available at http://lesrapports.ladocumentationfrancaise.fr/BRP/084000751/0000.pdf

* These committees are made up of a number of stakeholders, including doctors' associations, unions, CME associations and medical training and medical research departments.

Karine Chevreul is Deputy Head of Unit, Urc Eco IDF, Health Economics and Health Services Research Unit, University of Paris, France.

To join the mailing list, please contact
Anna Maresso
Observatory – London Hub
Email: a.maresso@lse.ac.uk

Euro Observer is published quarterly by the European Observatory on Health Systems and Policies, with major funding provided by a grant from Merck & Co., Inc., Whitehouse Station, New Jersey, USA.

For information and ordering details on any of the Observatory publications mentioned in this issue, please contact:
The European Observatory on Health Systems and Policies
WHO ECHP
Rue de l'Autonomie, 4
B - 1070 Brussels, Belgium
Tel: +32 2 525 09 33
Fax: +32 2 525 0936
Email: info@obs.euro.who.int
Website: www.euro.who.int/observatory

Design and production by
Westminster European
westminster.european@btinternet.com

ISSN: 1020-7481