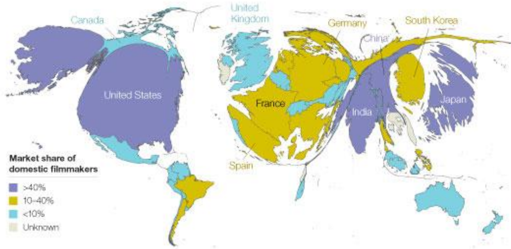

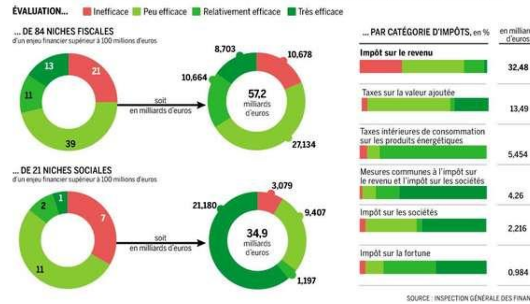

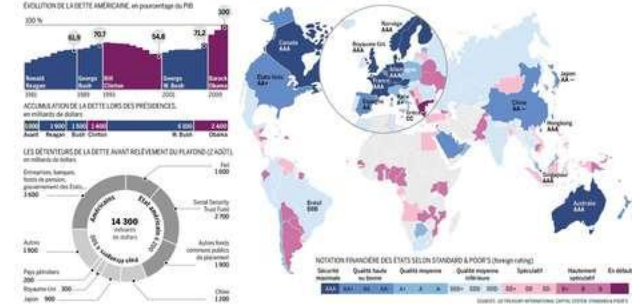

International perspectives on quality in healthcare system

Dr Paul GARASSUS

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Vice President French Health Economics Society SFES

http://www.sfes.info/

Economist Conferences The Economist

Healthcare in Europe

Elements of sustainable, high-quality and fair models for European healthcare systems

- Thought provoking experts : A Top-down reform. Is there a best structure for healthcare systems? Can different stakeholders agree on common goals? What needs to change now to move towards an improved system?
  - Pascal Garel, Chief Executive, European Hospital and Healthcare Foundation (HOPE) Jaak Peeters, Chairman, EMEA, Janssen Joanna Groves, Chief Executive Officer, International Alliance of Patients' Organizations. Birgit Beger, Secretary General, Standing Committee of European Doctors

- Financing: who pays? Should the private sector bear more of the cost of healthcare and be more involved with the modernisation of the public sector? Should the individual be prepared to shoulder a higher cost of healthcare?
  - Guillem López Casanovas, President, International Health Economics Association; Member of the Board, Central Bank of Spain and Professor of Applied Economics and Dean, Universidad Pompeu Fabra. Paul Garassus, Vice-president, French Health Economic Society and Member of the Board, European Union of Private Hospitals (UEHP). Josep Figueras, Director, European Observatory on Health Systems and Policies and Head, WHO European Centre on Health Policy

Too many hospital beds in London… and other challenges
World Congress WHO Amsterdam, 24 May 2012

Delivering "perfect healthcare" *by Brian De Francesca (executive vice president TBS Group, UK)*

- Too much democracy, A total lack of leadership, No alignment of incentives, Downsizing…

The German Hospital market in numbers

(source DKG)	Hospitals	Hospitalbeds	Cases	Chargeable Days	Average Stay	Average Use
1990	2 447	685.976	14.341.216	210.390.458	14,7	85,5 %
2008	2 083	503.360	17.519.579	142.534.88	8,1	77,4%

Changing Market for Hospital services. More cases, less time, less capacities (Quicker & Sicker) Rechtsanwalt Jens Wernick jens.wernick@wernick-ius.de

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Absolute Fallzahl	17 187 527	17 259 596	17 398 538	17 313 222	17 233 624	17 033 775	17 142 476	17 568 576	17 937 101	18 231 569
DVw	9,7	9,4	9,3	9,0	8,6	8,6	8,4	8,3	8,1	8,0

PAY-FOR-PERFORMANCE IN THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA: BETWEEN A GOOD TITLE AND A BAD REFORM

Vladimir Lazarevik and Blasko Kasapinov

Eurohealth incorporating Euro Observer — Vol.19 | No.1 | 2013.

- The government of the former Yugoslav Republic of Macedonia has introduced pay-for-performance for all specialist doctors in all public hospitals.
- The system is based on mandatory reporting of each intervention a doctor performs; it measures an individual doctor's workload, and not the performance of clinical teams.
- There are no performance measures such as quality, teamwork, complexity of the interventions, nor does it include any hospital outcome measures. Implementation of this reform created enormous frustrations and distress among the majority of physicians who went on a 42-day general strike.
- The implications of this system as currently implemented may lead towards greater numbers of doctors moving to private hospitals or going to work abroad.

Improving The Quality Of Health Care: What's Taking So Long?

Mark R. Chassin. Health Affairs, 32, no.10 (2013):1761-1765.

- Nearly fourteen years ago the Institute of Medicine's report, To Err Is Human: Building a Safer Health System, triggered a national movement to improve patient safety.
- Despite the substantial and concentrated efforts that followed, quality and safety problems in health care continue to routinely result in harm to patients. Desired progress will not be achieved unless substantial changes are made to the way in which quality improvement is conducted. Alongside important efforts to eliminate preventable complications of care, there must also be an effort to seriously address the widespread overuse of health services.
- That overuse, which places patients at risk of harm and wastes resources at the same time, has been almost entirely left out of recent quality improvement endeavors. Newer and much more effective strategies and tools are needed to address the complex quality challenges confronting health care. Tools such as Lean, Six Sigma, and change management are proving highly effective in tackling problems as difficult as hand-off communication failures and patient falls.
- Finally, the organizational culture of most American hospitals and other health care organizations must change. To create a culture of safety, leaders must eliminate intimidating behaviors that suppress the reporting of errors and unsafe conditions. Leaders must also hold everyone accountable for adherence to safe practices.

Goal of the study presented PCSI 2012 P4O reform prospective

Retrospective study on five DRG follow-up in French casemix 2009 analysis for the determination of quality indicators in P4O reforms

To anticipate further negotiation concerning DRG prospective payment tariff, to propose quality indicators as incentives for private hospitals

Context

- Rising cost containment for hospital using DRG payment
- To propose positive benchmarking between French “for profit” private hospitals
- Outcome as the main goal of hospital strategy : “Payment For Outcome”
- Incentives according to quality indicators

- DRG and statistical analysis performed by **HEVA**, Health Economics Consultant, 186 avenue Thiers, 69465 Lyon Cedex 06 France. www.hevaweb.com/

- Study supported by **FHP-MCO** (Fédération de l’Hospitalisation Privée – Médecine, Chirurgie, Obstétrique) : Acute Care “For Profit” Hospital French Federation, 81 rue de Monceau 75008 Paris France. www.fhpmco.fr/

Twelve months follow-up in French Hospital case-mix
5 DRG, public and private sectors data

2009	Coronary Stent (without MI)		Hip Replacement (coxarthrosis + fracture)		Mastectomy (total + subtotal)	
Total Stays	**117 984**		**125 340**		**61 164**	
Sector	Private	Public	Private	Public	Private	Public
Stays by sector	62 719	55 265	69 026	56 314	26 73	37 391
Hospital Number	266	233	455	387	457	385
Stays per hospital (mean value)	236	237	152	146	59	97
Share	**53%**	**47%**	**55%**	**45%**	**42%**	**58%**
Emergency (%)	3,3%	14,1%	4,3%	32,8%	NA	NA
ALOS (Mean)	3,6	4,3	9,6	11,4	4,3	4,2
ALOS (Median)	3	3	9	10	4	4
Age (Mean)	67,7	66,6	71,0	73,8	60,4	59,5
Age (Median)	69	67	73	76	60	59
% Male	74,9%	75,1%	42,2%	37,2%	1,0%	0,7%
% Female	25,1%	24,9%	57,8%	62,8%	99,0%	99,3%
DRG Level 1	69,1%	64,3%	55,6%	55,0%	69,1%	71,9%
DRG Level 2	20,5%	19,0%	39,5%	36,9%	24,4%	21,5%
DRG Level 3	2,0%	3,6%	3,9%	6,7%	2,3%	2,0%
DRG Level 4	0,4%	0,7%	1,0%	1,5%	0,1%	0,1%
DRG Level J	x	x	x	x	4,0%	4,5%
DRG Level T	8,0%	12,5%	x	x	x	x
Number of death	350	1 212	433	1 017	8	25

Severity of illness SOI and Risk of mortality ROM
Two independent main factors for analysis, separately analysed

- **Severity of illness SOI** represents the stage of the pathology:
  - In our example, the risk is not the same between hip replacement for osteoarthritis and for fracture.
  - The same situation is present for planned coronary stent

is determined by patient condition :

- age,
- morbidity,
- previous treatment, etc.

- **Risk of mortality ROM**

All studies for outcome analyse need a carefully adjustment according to specific casemix, depending of SOI and ROM both.

Other factors could be included as planned versus emergency care. But this problem depends on the pathology : appendectomy for example… and pertinence of procedure. We don't have but we need, international comparison for the best quality indicators concerning outcome.

% death after coronary stenting (except MI), French private casemix 2009

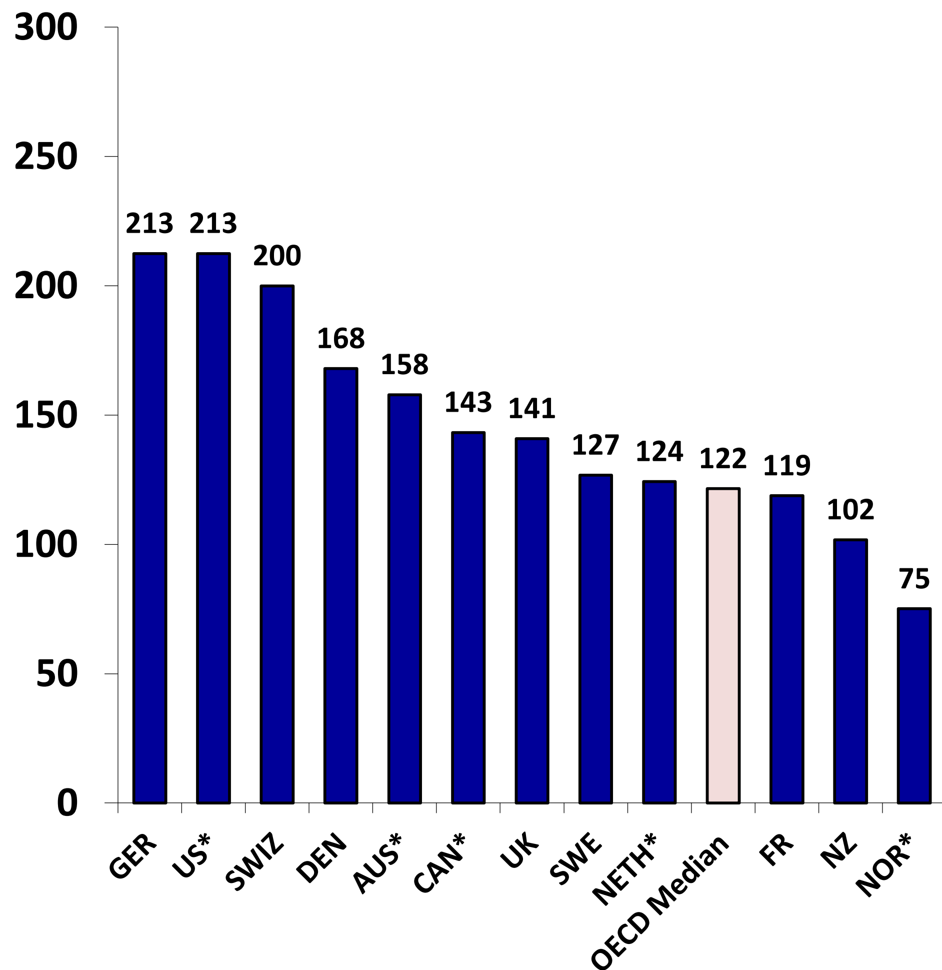
DP (ICD10)	Title	Stays	Death	% death per DP	Mean age death
I25	Chronic ischemic cardiopathy	22 565	40	0,18%	79
I74	Arterial embolism and thrombosis	8 317	36	0,43%	82
I20	Angor	13 167	33	0,25%	80
I21	Myocardial Infarct	1 456	26	1,79%	78
I50	Cardiac failure	801	19	2,37%	81
R57	**Shock**	**21**	**12**	**57,14%**	**81**
I46	**Cardiac arrest**	**13**	**7**	**53,85%**	**74**
Total		62 719			

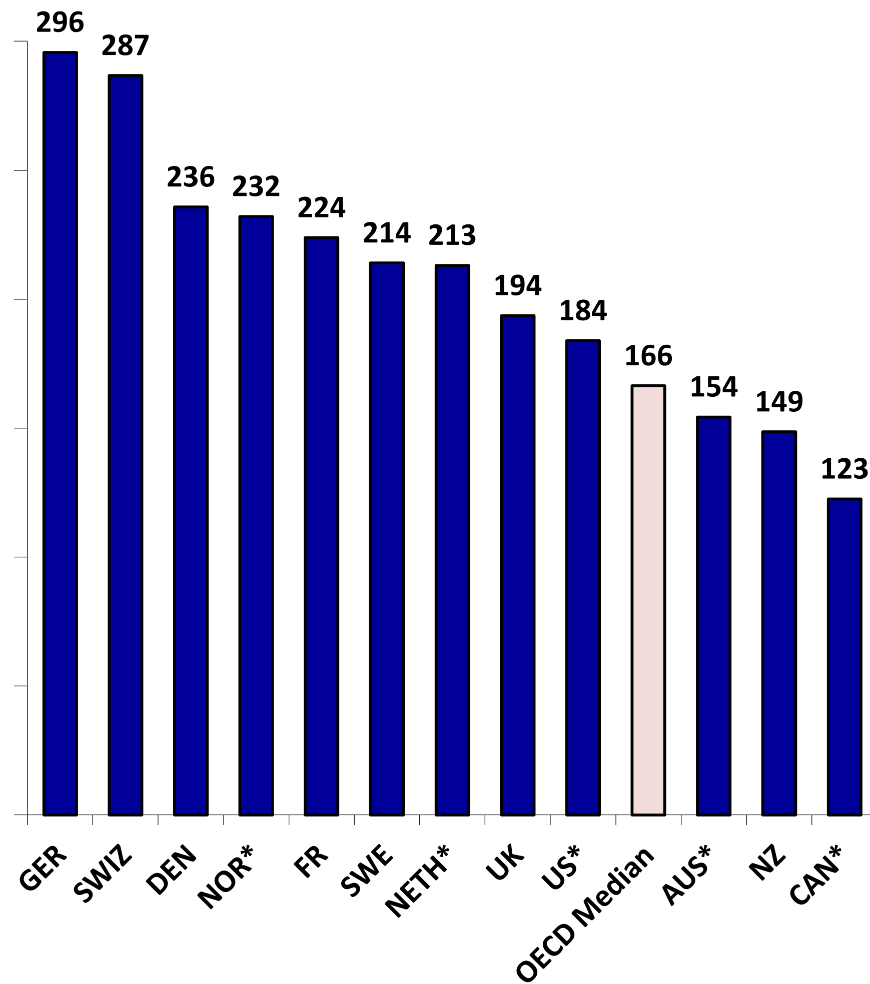
Proposition: Shock and Cardiac arrest (and MI !) are not allowed as DP in DRG 05K06, and will be oriented to special emergency care unit DRG, as severity or procedure oriented DRG.
Our goal: to differentiate chronic situation and planned stays, from emergency care

Deceased Patients after Hip Replacement in French Private Hospital 2009 : repartition by DRG and age mean value

Hip Prothesis by DP and DRG		GHM 08C47		GHM 08C48		Total		Hip replacement		
By DP		Nb	Age mean	Nb	Age mean	Nb	Age mean	Total	% total	**% Death**
M16	coxarthrosis	2	87	75	81	89	80	55 966	81,10%	**0,16%**
S72	fracture	261	86	0	x	316	86	9 501	13,80%	**3,33%**
Total Private Hospitals		**266**	**86**	**96**	**79**	**433**	**84**	**65 467**	**94,80%**	**0,66%**

Exhibit 8. Volume of Knee and Hip Replacements, 2009





* 2008.

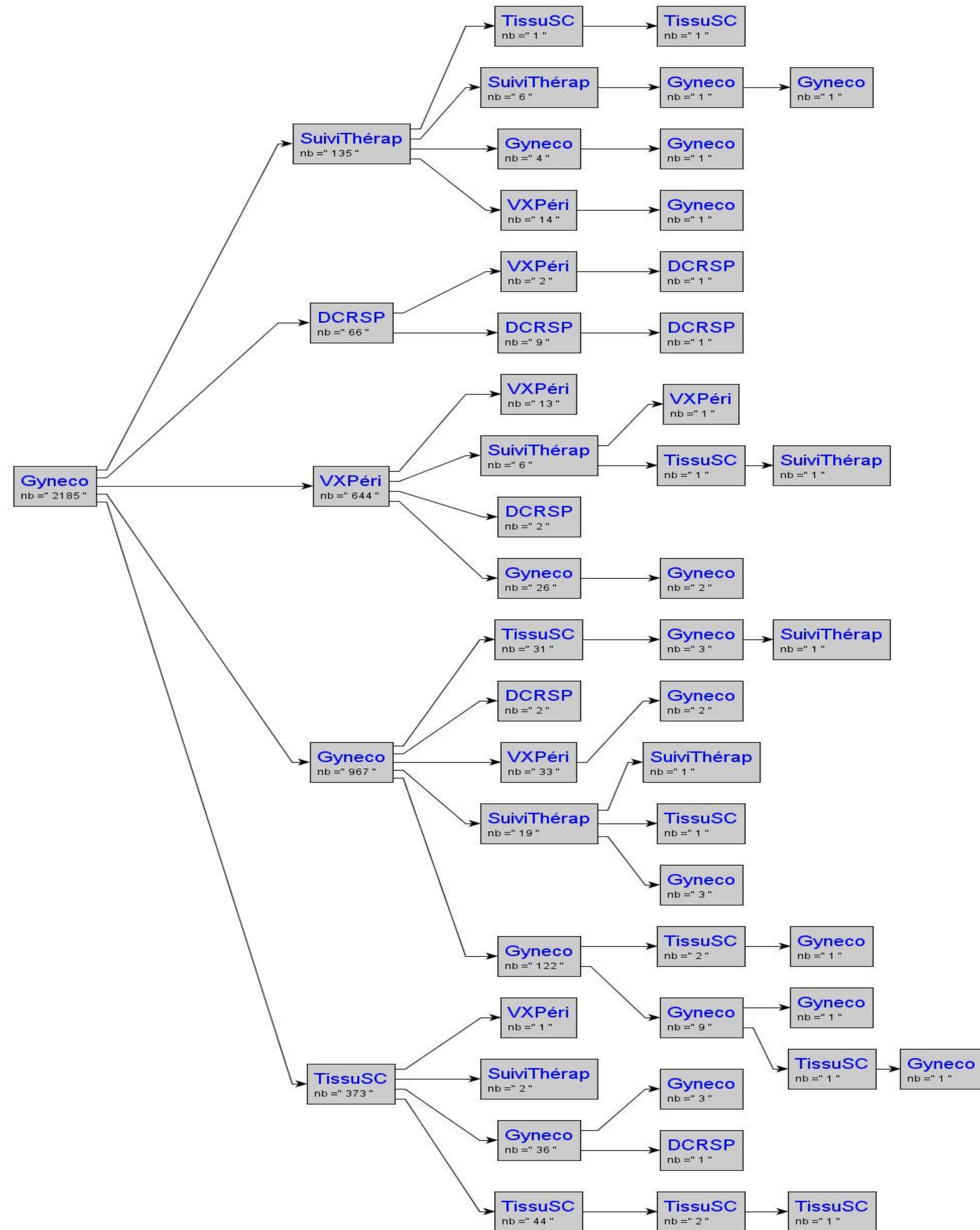
** 2007.

Source: OECD Health Data 2011 (Nov. 2011).

Hospital follow-up after mastecomy in 2009 French casemix (by HEVA*)

The best way for quality of outcome and complication prevention

No limited access but an optimal condition for ambulatory and hospital coordination



Propositions to be discussed

- Stent
  - % death per procedure
  - % rehospitalisation within 30 days for cardiovascular disease
  - % of myocardial infarct in the following 12 months
- Hip replacement
  - % death per procedure
  - % rehospitalisation within 30 days
  - % of related complication : infection and mechanical complication of implant in the following year
- Mastectomy
  - Rapid access to medical treatment, if required (chemotherapy and radiotherapy)
  - No hospitalisation in the same DRG in the following year

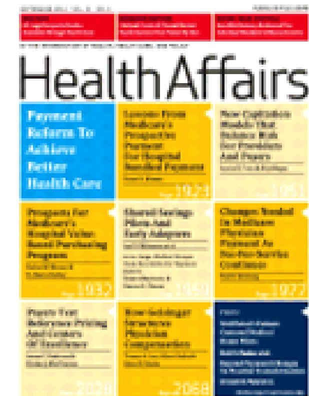
The most difficult question : proposition for incentives according to "outcome indicators" for each hospital

- The threshold of related complications is often very low. And then sensitivity to the evolution depends on a few patients.
- Complications must be carefully analysed and reported, for the best comprehension of outcome.
- The incentives could be positive : fees in an "ex post" determination of quality result. But it could be too, a negative for poor performer.
- We have to anticipate (participate) new propositions of best practice evolution for hospital payment
- Is P4O a incentive or a punishment? How enhance quality in hospital with quality problems?
- Is a national federation of hospital developing a strategy of selection in favour of a support for economic restriction?
- Quality of observed results needs a full implication of managers and physicians
- A quality program needs a full implication of all partners, caregiver and policymakers. Determination of outcome incentives depends on public policy in difficult time of budget containment
- A competitive advantage could be obtained by transparency concerning outcome result and efficiency of caregiver

Two main topics

- Payment reform to achieve better health care

  Health Affairs, September 2012, vol.31, N 9



- Getting control of Big Data

  Harvard Business Review, October 2012

Paying for Outcomes, Not Performance: Lessons from the Medicare Inpatient Prospective Payment System. *Richard F. Averill, M.S.; John S. Hughes, M.D.; Norbert I. Goldfield, M.D. The Joint Commission Journal on Quality and Patient Safety, Vol 37, N° 4, pp 184-192 . April 2011.*

- The three interrelated goals of the Affordable Care Act (ACA) of 2010 are to improve access, improve quality, and contain the costs of health care in the United States.
- **Pay-for-performance** (P4P) initiatives have been the primary approach used to link payment and quality.
- This article focuses on **P4O for inpatient care** and distills the lessons learned from the successful implementation of the Medicare Inpatient Prospective Payment System (IPPS)
- The first priority of P4O reforms should be **to reduce or eliminate any increase in payment resulting from negative outcomes** caused by quality failures, such as preventable admissions (for example, ambulatory sensitive conditions), readmissions, complications, and emergency department visits.

Measuring, Monitoring, And Managing Quality In Germany's Hospitals

Germany has made progress in measuring quality in hospitals and is extending its effort into its statutory health insurance system.

by Reinhard Busse, Ulrike Nimptsch, and Thomas Mansky. *Health Affairs, 28, no.2 (2009):w294-w304*

- In German hospitals, quality measurement, monitoring, and management have undergone considerable development.
- **This includes an array of mandatory measures, including a nationwide benchmarking exercise based on 194 indicators.**
- Because of better and deeper coding of diagnoses, procedures, and demographic information since the introduction of the diagnosis-related group (DRG) system, two further "generations" of instruments have been developed: quality measurement performed at the provider (hospital) level using administrative data, and long-term performance measurement using administrative data at the payer level.
- All three approaches have specific pros and cons concerning validity regarding final outcomes and resistance against manipulation.

Konsequenzen aus der Qualitäts-messung im Krankenhaus Vorschläge auf Basis internationaler Beispiele (IGES Institut GmbH Friedrichstraße 180 10117 Berlin)

Dr. Karsten Neumann Patrick Gierling Dr. Björn Peters Jean Dietzel, Nov 2013

- In Deutschland existiert für die Messung von Qualität im Krankenhaussektor bereits ein etabliertes System. Das AQUA-Institut ist derzeit im Auftrag des Gemeinsamen Bundesausschusses (G-BA) u. a. mit der Qualitätssicherung im stationären Sektor beauftragt. Zu seinen Aufgaben gehört die Entwicklung, Pflege und Ergebnisauswertung von Qualitätsindikatoren. Auf diesem System bauen wir auf, um Konsequenzen vorzuschlagen.
- Unser Konzept sieht vor, dass für geeignete Qualitätsindikatoren verbindliche Mindeststandards gelten müssen, die für die Erlaubnis zur Leistungserbringung nicht unterschritten werden dürfen. Leistungserbringern unterhalb des Mindeststandards werden zwei Jahre Zeit gegeben, den Mindeststandard zu erreichen.
- Den Krankenkassen und Leistungserbringern soll zudem gestattet werden, für elektive Leistungen, bei denen Krankenhäuser eine besonders hohe Qualität erbringen, Selektivverträge abzuschließen. Dabei wird die Krankenhauswahlfreiheit der Patienten in vollem Umfang beibehalten, den Patienten jedoch empfohlen, das Krankenhaus mit hoher Qualität aufzusuchen.

Deutschlands Zukunft gestalten Koalitionsvertrag zwischen CDU, CSU und SPD (1) 18. Legislaturperiode

- Die sektorübergreifende Qualitätssicherung mit Routinedaten wird ausgebaut. Wir werden gesetzlich ein Institut begründen, das dauerhaft und unabhängig die Qualität der ambulanten und stationären Versorgung ermittelt und dem Gemeinsamen Bundesausschuss Entscheidungsgrundlagen liefert. Die gesetzlichen Krankenkassen werden verpflichtet, dem Institut geeignete pseudonymisierte Routinedaten zur Verfügung zu stellen.
- In einer Qualitätsoffensive werden wir die Qualität der stationären Versorgung verbessern. Qualität wird als weiteres Kriterium für Entscheidungen der Krankenhausplanung gesetzlich eingeführt (1 KHG).
- In dem neu zu gründenden Qualitätsinstitut werden sektorenübergreifend Routinedaten gesammelt, ausgewertet und einrichtungsbezogen veröffentlicht. Die Anforderungen der Qualitätsrichtlinien des Gemeinsamen Bundesausschusses (GBA) sind zwingend einzuhalten. Der Medizinische Dienst der Krankenkassen soll zur Überprüfung der Vorgaben des GBA zur internen und externen Qualitätssicherung zukünftig unangemeldet Kontrollen in den Krankenhäusern durchführen. Die Befugnis des GBA zur Festlegung von Mindestmengen wollen wir rechtssicher gestalten. Die Ausnahmebefugnisse der Länder bleiben davon unberührt. Die jährlich zu erstellenden Qualitätsberichte der Krankenhäuser müssen verständlicher, transparenter und als Grundlage für die Patiententscheidung präziser werden.

Deutschlands Zukunft gestalten Koalitionsvertrag zwischen CDU, CSU und SPD (2) 18. Legislaturperiode

- Der GBA wird beauftragt, in seinen Vorgaben die Aussagekraft und Verständlichkeit der Qualitätsberichte der Krankenhäuser zu verbessern und Aspekte der Patientensicherheit sowie Ergebnisse von Patientenbefragungen zu integrieren. Dazu soll das Qualitätsinstitut eine online einsehbare Vergleichsliste erstellen und führen und die Vielzahl von Zertifikaten bewerten und einordnen. Die teilweise in Krankenhäusern bereits genutzten OP-Sicherheits-Checklisten werden allgemeiner Standard der Qualitätssicherung.

- Gute Qualität muss sich für die Krankenhäuser auch finanziell lohnen. Die Menge soll künftig nur da berücksichtigt werden, wo sie entsteht. Das heute bestehende System der Mehrleistungsabschläge wollen wir dabei differenzieren: Leistungen mit nachgewiesen hoher Qualität können von Mehrleistungsabschlägen ausgenommen werden, für besonders gute Qualität sind Zuschläge möglich. Umgekehrt sollen bei unterdurchschnittlicher Qualität für einzelne Leistungen auch höhere Abschläge möglich sein.

- Die Qualität soll dabei risikoadjustiert und anhand wesentlicher Indikatoren gemessen werden. Die Degression des Landesbasisfallwertes bei landesweiten Mengensteigerungen wird entsprechend vermindert. Zur weiteren Stärkung der Qualität in der Versorgung wird für vier vom GBA ausgewählte planbare Leistungen den Krankenkassen in den Jahren 2015 bis 2018 die Möglichkeit gegeben, modellhaft Qualitätsverträge mit einzelnen Krankenhäusern abzuschließen.

52 AICGS POLICY REPORT : PAY-FOR-PERFORMANCE IN THE HEALTH CARE SYSTEM: LESSONS LEARNED AND STEPS FORWARD

Christof Veit Dagmar Hertle

AMERICAN INSTITUTE FOR CONTEMPORARY GERM AN STUDIES THE JOHNS HOPKINS UNIVERSITY

- This publication is based on a more extensive report the authors published in August 2012 on behalf of the German Federal Ministry of Health; the entire report can be requested at p4p@bqa-institut.de

- P4P projects display remarkably different courses ofaction. These span from classical bonus projects and targeted payments to non-pay-for-non-performance, shared-savings approaches and accountable care organizations (ACOs) in the United States.

- The P4P projects implemented in Germany also exhibit a variety of goals and organizational forms. Many P4P projects work simultaneously with non-financial incentives, for example training and benchmarks with feedback or public reporting.

- In Germany, the law provides different opportunities to realize P4P projects, such as: pilot projects (section 63 Social Colde, volume V), structural contracts (section 73a Social Code, Volume V), care centered on primary care physicians (section 73b Social Code, Volume V), selective contracts (section 73c Social Code, Volume V), and integrated care (section 144 Social Code, Volume V).

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- Not all indicators are equally qualified to be used for P4P projects. Consequently, a new testing method for the applicability of P4P quality indicators was developed on the basis of QUALIFY, which is presented in the detailed report. This method was tested on over 2,000 indicators and is already in practical use.

- P4P projects are an intervention in the regulation of a complex system; solid understanding of the complexities and the context is necessary for successful implementation.

- Furthermore, one should consider that outcome and process indicators behave very differently, and P4P projects must use the right indicators for the desired goals. Indicators on the appropriateness of the medical indication will play a growing role in the future and should be further developed

Thank's to Thomas BUBLITZ
BDPK, Berlin

- Have a look at

http://www.qualitaetskliniken.de/

Massachusetts General Physicians Organization's Quality Incentive Program Produces Encouraging Results

David F. Torchiana, Deborah G. Colton, Sandhya K. Rao, Sarah K. Lenz, Gregg S., Meyer and Timothy G. Ferris.

Health Affairs, 32, no.10 (2013):1748-1756

- Physicians are increasingly becoming salaried employees of hospitals or large physician groups. Yet few published reports have evaluated provider-driven quality incentive programs for salaried physicians. In 2006 the Massachusetts General Physicians Organization began a quality incentive program for its salaried physicians. Eligible physicians were given performance targets for three quality measures every six months.

- The incentive payments could be as much as 2 percent of a physician's annual income. Over thirteen six-month terms, the program used 130 different quality measures. Although quality-of-care improvements and cost reductions were difficult to calculate, anecdotal evidence points to multiple successes. For example, the program helped physicians meet many federal health information technology meaningful use criteria and produced $15.5 million in incentive payments.

- The program also facilitated the adoption of an electronic health record, improved hand hygiene compliance, increased efficiency in radiology and the cancer center, and decreased emergency department use.

- The program demonstrated that even small incentives tied to carefully structured metrics, priority setting, and clear communication can help change salaried physicians' behavior in ways that improve the quality and safety of health care and ease the physicians' sense of administrative burden.

Quality Group project UEHP

(Bublitz BDPK, Garassus* Baqimehp, Nervo Monaco, Orta AIOP, Piwernetz Qualitätkliniken)

- The group came up with the following possible objectives for such a project:
  - to allow citizen to make a fact-based free choice
  - to ensure medical coordination as a basis of the treatment chain
  - to guarantee access to high quality emergency care at moving conditions (holiday, business, ..)
  - to be able to be included in the EU referral network

- For these objectives, perspectives and arguments have been collected. They are summarized under the following aspects:
  - Patients perspective
  - Interest of hospitals
  - Health Care System
  - Interoperability
  - Methods
  - Technological aspects
  - Pilot study

Early Lessons From Accountable Care Models In The Private Sector: Partnerships Between Health Plans And Providers

Aparna Higgins1,*, Kristin Stewart2, Kirstin Dawson3 and Carmella Bocchino4

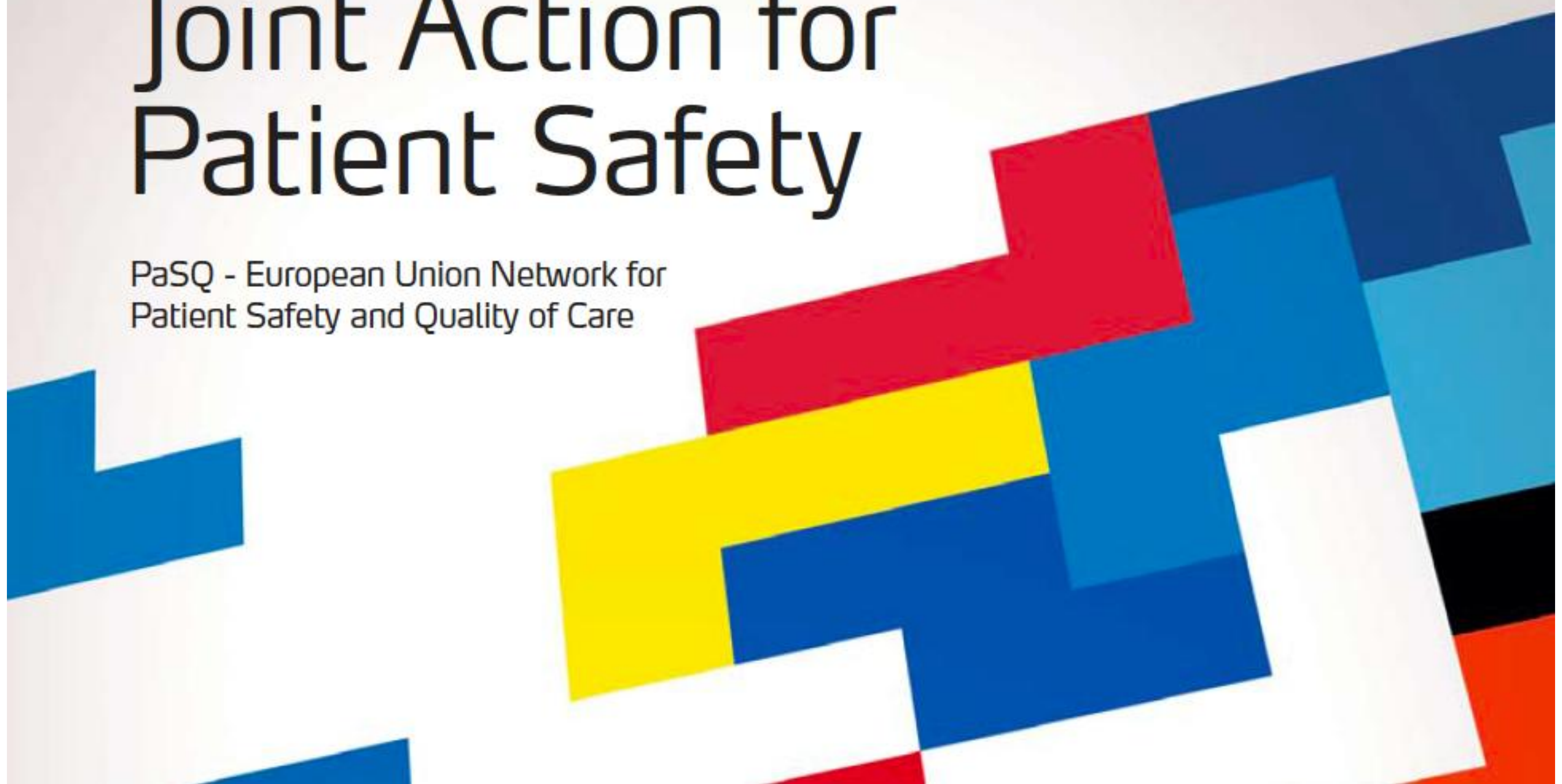
Health Aff September 2011 vol. 30 no. 9 1718-1727

- New health care delivery and payment models in the private sector are being shaped by active collaboration between health insurance plans and providers. We examine key characteristics of several of these private accountable care models, including their overall efforts to improve the quality, efficiency, and accountability of care; their criteria for selecting providers; the payment methods and performance measures they are using; and the technical assistance they are supplying to participating providers.

- Our findings show that not all providers are equally ready to enter into these arrangements with health plans and therefore flexibility in design of these arrangements is critical. These findings also hold lessons for the emerging public accountable care models, such as the Medicare Shared Savings Program—underscoring providers' need for comprehensive and timely data and analytic reports; payment tailored to providers' readiness for these contracts; and measurement of quality across multiple years and care settings.

The main objective of the PaSQ Joint Action is to support the implementation of the Council Recommendation on Patient Safety

- 1. Review/data collection: Review of existing data: previous mapping exercises (national and international experiences), literature Review. Needs assessment: collection of the expectations of MS, from the proposed collaboration and networking through the JA
- 2. Action plan development based on the review and on a feasibility analysis, in the framework of the available resources
- 3. Implementing tools development
- 4. Implementation


www.pasq.eu
Joint Action for
Patient Safety
PaSQ - European Union Network for
Patient Safety and Quality of Care

Some references concerning P4P and P4O

- Agwunobi John and London Paul A. Removing costs form the health care supply chain :lessons form mass retail. Health Affairs, September October 2009, volume 28, number 5, pp 1336-1342.
- AHRQ Quality Indicators, Death among Surgical Inpatients with Serious Treatable Complications. Provider-Level Indicator. Patient safety indicators. Web Site: http://www.qualityindicators.ahrq.gov
- Busse Reinhard and Quentin Wilm. Moving towards transparency and quality in hospitals: conclusions and recommendations. In Diagnosis-related groups in Europe. Open University Press, 2001. Chapter 10, pp. 149-171.
- Chernew Michael E, Mechanic Robert E, Landon Bruce E and Gelb Safran Dana. Private-payer innovation in Massachusetts: the “alternative quality contract”. Health Affairs, January 2011, volume 30, number 1, pp 51-62.
- Damberg Cheryl L., Raube Kristiana, Teleki Stephanie S., and de la Cruz Erin. Taking Stock Of Pay-For-Performance: A Candid Assessment From The Front Lines [HealthAffairs 28, no. 2(2009): 517–525; 10.1377/hlthaff.28.2.517]
- Fleurence Rachael L, Naci Huseyin and Jansen Jeroen P. The critical role of observational evidence in comparative effectiveness research. Health Affairs, October 2010, volume 29, number 10, pp 1826-1833.
- Garber Alan M. How the patient-centered outcomes research institute can best influence real-world health care decision making. Health Affairs, December 2011, volume 30, number 12, pp 2243-2251.
- Goldsmith Jeff. Accountable care organizations: the case for flexible partnership between plans and providers. Health Affairs, January 2011, volume 30, number 1, pp 32-40.
- Iglehart John K. The political fight over comparative effectiveness research. Health Affairs, October 2010, volume 29, number 10, pp 1757-1760.
- Klazinga Niek. Health system performance management: Quality for better or for worse. Eurohealth Vol 16 No 3.
- Pearson Steven D., Schneider Eric C., Kleinman Ken P., Coltin Kathryn L. and Singer Janice A. The Impact Of Pay-For-Performance On Health Care Quality In Massachusetts, 2001–2003. Health Affairs, 27, no. 4 (2008): 1167-1176
- Ramsey ScottD, Veenstra David, Tunis Sean R, Garrison Louis, Crowley John J and Baker Laurence. How comparative effectiveness research can help advance “personalized medicine” in cancer treatment. Health Affairs, December 2011, volume 30, number 12, pp 2259-2268.
- Robinson James C, Williams Thomas, and Yanagihara Dolores. Measurement of and reward for efficiency In California's pay-for-performance program. Health Affairs, September/October 2009, Volume 28, number 5, pp. 1438-47.
- Robinson James C. Comparative effectiveness research: from clinical information to economic incentives. Health Affairs, October 2010, volume 29, number 10, pp 1788-1795.
- Saltman Richard B., Durán Antonio and Dubois Hans F.W. Governing public hospital. European Observatory on health systems and policies. WHO 2011.
- Thomson Sarah, Foubister Thomas and Mossialos Elias. Financing health care in the European Union. Observatory studies series n°17, WHO 2009.
- Wennberg John E., Fisher Elliott S., Skinner Jonathan S. and Bronner Kristen K. Extending P4P, The nature of the problem. Health Affairs, 2007, Volume 26, number 6, pp. 1575-1585.
- Werner Rachel M. and Dudley Adams R., Making The ‘Pay’ Matter In Pay-For-Performance: Implications For Payment Strategies. Health Affairs, September/October 2009, volume 28, number 5, pp. 1498-1508.

Some references concerning economic context in healthcare

- Atun R, Knaul FM, Akachi Y, Frenk J. Innovative financing for health: what is truly innovative? Lancet. 2012
- Belda-Iniesta C. Cost-effectiveness, cancer burden and financial crisis: a perfect storm. Clin Transl Oncol. 2012 Oct;14(10):713-4.
- Carman AL, Timsina LR, Scutchfield FD. Quality improvement activities of local health departments during the 2008-2010 economic recession. Am J Prev Med. 2014 Feb;46(2):171-4.
- García-Armesto S, Campillo-Artero C, Bernal-Delgado E. Disinvestment in the age of cost-cutting sound and fury. Tools for the Spanish National Health System. Health Policy. 2013 May;110(2-3):180-5.
- Gené-Badia J, Gallo P, Hernández-Quevedo C, García-Armesto S. Spanish health care cuts: penny wise and pound foolish? Health Policy. 2012 Jun;106(1):23-8.
- Karamanoli E. Greece's financial crisis dries up drug supply. Lancet. 2012 Jan 28;379(9813):302.
- Krania E, Avgerinou E, Limaki E, Bartzis G, Mantzana V. E-prescribing in Greece: Myth or reality. Stud Health Technol Inform. 2013;190:194-7.
- Majeed A. Primary care in Europe: entering the age of austerity. J Ambul Care Manage. 2012 Jul-Sep;35(3):162-6.
- Maynard A. Health Care Rationing: Doing It Better in Public and Private Health Care Systems. J Health Polit Policy Law. 2013 Aug 23. [Epub ahead of print]
- Mitton C, Dionne F, Donaldson C. Managing Healthcare Budgets in Times of Austerity: The Role of Program Budgeting and Marginal Analysis. Appl Health Econ Health Policy. 2014
- Mladovsky P, Srivastava D, Cylus J, et al. Policy summary 5. Health policy responses to the financial crisis in Europe. World Health Organization on behalf of the European Observatory on Health Systems and Policies, 2012
- Niakas D. Greek economic crisis and health care reforms: correcting the wrong prescription. Int J Health Serv. 2013;43(4):597-602.
- Nuti S, Vainieri M, Frey M. Healthcare resources and expenditure in financial crisis: scenarios and managerial strategies. J Matern Fetal Neonatal Med. 2012 Oct;25 Suppl 4:48-51. Review.
- Pericás JM, Aibar J, Soler N, López-Soto A, Sanclemente-Ansó C, Bosch X. Should alternatives to conventional hospitalisation be promoted in an era of financial constraint? Eur J Clin Invest. 2013 Jun;43(6):602-15.
- Polyzos N, Karanikas H, Thireos E, Kastanioti C, Kontodimopoulos N. Reforming reimbursement of public hospitals in Greece during the economic crisis: Implementation of a DRG system. Health Policy. 2013 Jan;109(1):14-22. Epub 2012 Oct 10.
- Pompili M, Vichi M, Innamorati M, Lester D, Yang B, De Leo D, Girardi P. Suicide in Italy during a time of economic recession: some recent data related to age and gender based on a nationwide register study. Health Soc Care Community. 2013 Dec 6. [Epub ahead of print]
- Radu P, Purcărea V, Popa F. The costs of the economic crisis in the health sector. J Med Life. 2009
- Robinson S, Williams I, Dickinson H, Freeman T, Rumbold B. Priority-setting and rationing in healthcare: evidence from the English experience. Soc Sci Med. 2012
- Saltman RB, Cahn Z. Restructuring health systems for an era of prolonged austerity: an essay by Richard B Saltman and Zachary Cahn. BMJ. 2013 Jun 24;346:f3972.
- Sbarouni V, Tsimtsiou Z, Symvoulakis E, Kamekis A, Petelos E, Saridaki A, Papadakis N, Lionis C. Perceptions of primary care professionals on quality of services in rural Greece: a qualitative study. Rural Remote Health. 2012;12:2156.
- Schrijvers G. Global payment for health services as a solution in the financial crisis in Europe. Int J Integr Care. 2012 Oct 31;12:e228.
- Sukkar E. Greeks feel effects of drug shortages caused by austerity measures. BMJ. 2012 May 21;344:e3589.
- Svaljek S. The recent health reform in Croatia: True reforms or just a fundraising exercise? Health Policy 2013 Oct 3 [Epub ahead of print]
- Vandijck D, Cleemput I, Hellings J, Vogelaers D. Infection prevention and control strategies in the era of limited resources and quality improvement: A perspective paper. Aust Crit Care. 2013 Aug 19 [Epub ahead of print]
- Vandoros S, Stargardt T. Reforms in the Greek pharmaceutical market during the financial crisis. Health Policy. 2013 Jan;109(1):1-6.
- Villalonga A. How to make savings in anaesthesia in times of financial crisis. Rev Esp Anestesiol Reanim. 2013 Mar;60(3):121-3.
- Vogler S, Zimmermann N, Leopold C, de Joncheere K. Pharmaceutical policies in European countries in response to the global financial crisis. South Med Rev. 2011 Dec;4(2):69-79.