

generic revolution is still ahead and the drug market as a whole will be deeply affected by an increasing number of generic drugs. Public policy should take into account this evolution, in order to maintain the industry capacity to innovate.

DECISION MAKING IN ITALIAN HEALTH CARE: ARE ECONOMIC STUDIES USED BY DECISION MAKERS?

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OBJECTIVES: The number of economic evaluation studies has grown extensively in recent years. However, a limited number of studies investigated its impact on decision making; the gap is particularly evident in Italy where there are no such studies available. Objective of the research is to evaluate impact of economic evaluation analysis on decision making in the Italian health care system. The prospective taken is that of professionals operating within the system. The aim is to investigate whether there are evident differences in attitudes among professionals who conduct different types of activities. **METHODS:** A 12 item based questionnaire was sent to 374 health care professionals who had undergone some form of health economics training. The sample was taken from a list of participants of a major health care management program at Bocconi School of Management in the last 10 years. **RESULTS:** Response rate was 35%. All respondents stated that basics of economic evaluation analysis must be part of the overall knowledge of health care professionals. Grade of usefulness of these arguments in professional activities was rated 3.84 (scale 1–5). Respondents considered that economic evaluation is more largely used in making managerial types of decisions rather than clinical ones (mean 2.94 vs. 2.73). Decisions taken according to short-term perspectives are considered the major barrier in the use of economic evaluation studies, particularly by managers (71%). More training in health economics was indicated as the most relevant facilitating factor for a wider use of studies, by both clinicians and managers (64%). Majority of respondents (80%) considered that the maximum benefits of economic evaluation are taken from its use at the organizational level. **CONCLUSIONS:** Although economic evaluation has a rather modest impact on decision making in Italian health care, there are some encouraging signs that could lead to its wider and more effective use.

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PRESCRIPTION PATTERN OF ALIMENTARY TRACT DRUGS AFTER CHANGES OF DRUG BENEFIT STATUS IN KOREA

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OBJECTIVES: In Korea, even non-prescription drugs have been on the list of reimbursable drugs, but recent suggestions are that there is a need to change the scope of the positive list. In April 2002, 829 non-prescription alimentary tract drugs were removed from the list of reimbursable drugs and made non-reimbursable even when doctors prescribed them. This study investigated the effect of delisting on the prescribing pattern of alimentary tract drugs. **METHODS:** Health insurance reimbursement claims data before (October 2001) and after (October 2002, October 2003) the delisting were analyzed for 707 clinics (4% randomized sampling). We calculated the prescription rate of alimentary tract drugs and examined the use of alimentary tract drugs by diseases. **RESULTS:** The prescription rate for alimentary tract drugs declined from 79.03% in October 2001 to 59.91% in October 2002 and to 61.58% in October 2003. The prescription rate for digestives, of which all products were delisted, dropped sharply from 32.03% before delisting to 1.9% in October 2002 and to 0.75% in October 2003. Medicines for intestinal disorders were

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prescribed less frequently after delisting, while the prescription rate for anti-ulcerants and antacids increased by 3–4%. In general, the drugs on the positive list were not switched to delisted drugs, even though some listed ingredients were used more often. Also, the use of alimentary tract drugs for patients who had respiratory diseases such as common cold reduced more than by 20% after delisting, while the prescription rate for those with gastric ulcer decreased by 1% after delisting. **CONCLUSIONS:** The delisting policy reduced the use of alimentary tract drugs. But there was difference in the effect of delisting by drug classification and some delisted drugs were found to be switched to listed drugs. The use of alimentary tract drugs changed less for diseases for which they are essential than for supplementary purposes.

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THE IMPACT OF PHARMACEUTICAL MARKET COMPETITION ON PRICE AND REIMBURSEMENT STATUS OF PATENTED DRUGS IN THE NETHERLANDS, BELGIUM, FRANCE AND GERMANY

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OBJECTIVES: The Dutch Ministry of Health (MoH) has requested the Health Care Insurance Board (CVZ) to advise on the modernisation of the drug reimbursement system (Geneesmiddelenvergoedingssysteem GVS). On behalf of the CVZ, PharMerit assessed the impact of market competition on pricing and reimbursement (P&R) of patented drugs in Belgium, France and Germany. **METHODS:** In-depth interviews with reimbursement policy-makers; analysis of laws and policy documents. Impact of market competition (defined as total number of marketed generics and therapeutically comparable patented drugs) on drug reimbursement decision-making was assessed in each of the study countries. **RESULTS:** In Belgium and France, drug P&R is determined in negotiation between manufacturers and authorities. Generic prices are set 30–40% lower than specialties. “Late-arrivals” (e.g. me-too’s or other therapeutically comparable patented drugs) receive lower prices than (first-in-class) “early-arrivals”. Since 2004, patented drugs in Germany are no longer excluded from therapeutic reference-pricing if at least 3 comparable alternatives are available. Sickness Funds are legally entitled to adjust cluster reference prices in case justified by “changes in the market”. Cluster reference prices with a high number of generics (off-patent and patented drugs) are expected to be reduced in the future. Prices of patented late-arrivals in The Netherlands are not directly subject to market competition considerations and tend to level the cluster reference price, based on the average price of clustered products. Recently, prices of generics have been lowered in an informal agreement between MoH and manufacturers. The MoH is seeking ways to modernise the reimbursement system. **CONCLUSIONS:** In Belgium and France, late-arriving patented drugs can be assigned relatively lower prices in comparison to their early-arriving competitors. In Germany, introduction of late-arrivals may impact on P&R of both early and late-arrivals. In the current set-up of the Dutch GVS, market introduction of late-arrivals does not impact on cluster reference prices.

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REIMBURSEMENT POLICY IN TURKEY: NEW CONSENSUS

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OBJECTIVES: Reimbursement policies clearly affect the rational use of drugs. In Turkey there are three state funded social

security and several private insurance agencies. The regulatory and functional differences between those agencies make drug reimbursement regulations complicated for the health care professionals and patients. Turkish Society of Clinical Pharmacology organized a three-day meeting with all stakeholders (parliamentarians, academicians, Ministry of Health, Ministry of Finance, State Planning Organization, international and local drug industry representatives and social security institutions, medical and pharmacist associations) for discussion of the present reimbursement system and its future. **METHODS:** Discussion was performed in six steps. First, representatives of the stakeholders presented their own policies and problems. Second, a brainstorm was performed. All the ideas were recorded as a consensus text in the third step. The next day, participants were divided into four groups to evaluate the text at a round table discussion. Finally, collecting all the suggestions, the consensus text was rewritten and distributed to the representatives after the meeting to ask for their approval. **RESULTS:** All stake holders, except multinational drug companies, were agreeing to use national pharmacoeconomic data for reimbursement issues. Other main outcomes of this consensus meeting accepted by all the representatives were as follows: All health care professionals should get enough education to establish the rational use of drugs. An autarchic "National Drug Institution" should be built. **CONCLUSIONS:** A "Reimbursement Commission" should be built with the participation of all representatives and should work for the standardization of reference drug prices. State funded social insurance systems should be kept under one valid insurance system. OTC drug definition and the OTC drug list should be defined clearly, and preventive therapy such as vaccination should be reimbursed in full.

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ECONOMIC EVALUATION BETWEEN ALTERNATIVE PATTERNS OF OUTPATIENT CARE IN GREECE: THE CASE OF IKA INSURANCE FUND

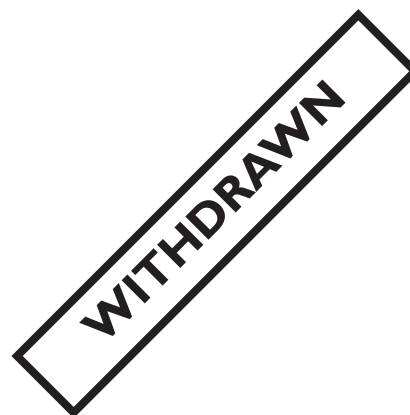
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OBJECTIVES: Comparative analysis and productivity measurement of outpatient care, provided and reimbursed by IKA, the largest National Social Insurance Institution in Greece. In-house services of Patission Local Health Unit (LHU)) are compared to Family Doctor's private surgeries' medical visits (out-sourcing services). **METHODS:** A prospective study of medical visits for a 6 month period (September 1, 2002 to February 28, 2003). Sample consisted of 23,982 outpatient visits to 3 specialities (5 Cardiologists with 12,538 visits, 3 Surgeons with 4544 visits and 3 Otolaryngologists with 6900 visits) offering their services in a LHU and 3 family doctors with 17,295 visits, belonging to the same LHU but offering their services in their private surgeries with 2942, 8245, and 6105 visits respectively. Clinical and economic data is derived from IKA's Central Administration, its Information System, from LHU and interviews with executives. **RESULTS:** Productivity among all doctors presented significant divergences. The productivity of family doctors in their private surgeries was higher than LHU's doctors while the average waiting time appeared to be higher for medical visits to LHU's doctors. Average cost of medical visits to the LHU was estimated at 8.48€ while cost per speciality was 7.19€ for the cardiologist, 10.43€ for the surgeon and 7.83€ for the otolaryngologist. Average cost per visit to family doctors was 2.33€, while cost per speciality was 3.69€, 1.53€ and 1.77€ respectively. **CONCLUSIONS:** Average cost of medical visit to family doctor's private surgery was lower than the cost of medical visit to LHU's. The provision of outpatient medical care offered by IKA through out-sourcing seems to be most cost-effective. Economic evaluation

studies, combining the efficient use of health resources with the adoption of effective patterns of patients' management, should be conducted at national level by all social funds and incorporated in their decision making process.

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EMERGENCY DEPARTMENT VISITS FOR INJURIES RESULTING FROM BICYCLE ACCIDENTS: TIME, TYPE AND COST OF INJURY

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OBJECTIVE: To examine the time of occurrence, type and cost of injuries resulting from bicycle accidents treated in Emergency Departments (ED). **METHODS:** Cases were identified from 2002 ED and hospital databases from Massachusetts using ICD-9 diagnosis and E-codes (E826.0–E826.9). Hospital cases were limited to those admitted via the ED. Cost estimates include facility, accommodations and ancillary services, reported in 2002 US\$. Charges were adjusted using a 0.61 cost-to-charge ratio. **RESULTS:** Of 10,025 bicycle accident cases identified, 75% were male. Mean age was 28 years (median: 15, range: <1–98), 61% were under 20 years. Transport by ambulance was used for 13% of those injured; <1% by helicopter. The cyclist was the injured party in 96% of cases; a pedestrian or other person in 4%. Almost half (48%) arrived between 4:00 and 9:00 PM, 36% on a weekend and 70% during May–September. The majority (94%) were treated and released from ED, 2% died in ED, 3% were admitted to hospital; and 1% were either transferred to another facility, or left AMA. Highest admission rate (12%) was seen in older patients (60+ years). Skull fractures and other head injuries accounted for 6% of cases. Other fractures, dis-

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