and in general such differences were not systematic (e.g. the result for Germany was not always more favourable than that for the UK). However, if a cost-effectiveness threshold (i.e. willingness-to-pay) for a life-year or QALY of $50,000 were assumed, the implications for decision-making would be similar across countries. CONCLUSIONS: It is concluded that, where the analyst allows factors to vary, cost-effectiveness results differ by country. However, the implications of such variation for decision-making depend critically on the cost-effectiveness thresholds applying in Europe.

HOW PHARMACOECONOMICS INDICATORS FOR THERAPEUTIC INNOVATIONS IN ACUTE AND CHRONIC DISEASE CAN ASSIST PAYORS IN THE DECISION MAKING PROCESS

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Therapeutic innovations are generating increasing pressure on health care budgets particularly for hospitals. Health care professionals are confronted with budgetary, ethical and equity issues when no explicit criteria for choice have been set by the community. Reviews of the cost-advantage profile for costly innovations are rare. OBJECTIVE: This work seeks to analyse propensity and capacity of health systems to finance therapeutic innovations according to their cost/advantages profile. METHODS: A literature review was carried out. A series of therapeutic innovations addressing life-threatening conditions were identified between 1988 and 2003. They were selected according to: whether they were considered as innovations at time of their introduction into the market and their cost high. Forty-four publications in peer-reviewed journals were selected. Innovations were classified according to severity of the condition and the treatment impact on vital prognosis and survival. Reported costs were actualised to 2002 values. Common indicators across studies were identified. RESULTS: The cost per year of life saved (YLS) for breast cancer treated for combinations including paclitaxel in Europe varies between €7800 and €14000; at 5 years, the cost for trastuzumab/paclitaxel association is €23000 in UK. This is between €7000 and €14000 for ovarian cancer. Cost per YLS for myocardial infarctus treated by alteplase in France is €12000. It varies between €45000 and €79000 for implantable cardiac defibrillators. This cost varies between €10000 to €12000 in Europe and around €12000 in France for drotrecogin alfa (activated) (recombinant human activated protein C) for treatment of severe sepsis with multiple organ failure, recently launched in France. CONCLUSIONS: Pharmacoeconomic indicators such as cost per YLS can assist payors in decision-making process when confronted with costly innovations in chronic and acute disease. A further step is to consider the budget impact, taking into account criteria such as incidence, prevalence, severity, and mortality.

HEALTH CARE POLICY—Cost Studies

RESEARCH 5539: COMPARISON OF ACTUAL COSTS AND DRG-BASED REIMBURSEMENT OF INTENSIVE CARE IN GERMAN ICUS

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OBJECTIVES: Financing of hospital services in Germany is presently transformed to a DRG-based system destined to derive 100% of the hospital revenue. The aim of this study is to determine whether the German DRG based reimbursement provides adequate coverage of actual costs of intensive care unit (ICU) patients. METHODS: Retrospective analysis of ICU length of stay (LOS) and direct cost data extracted from patients’ electronic records from the surgical ICU of the University Hospital of the University Hospital Göttinngen, Germany. Cost calculations performed for 1187 patients with LOS > 24 hours over a 24-month period (January 1, 2000–December 31, 2001). ICU reimbursement calculations based on the specific G-DRG according to the individual diagnosis and the fixed ICU proportion of the G-DRG reimbursement. Direct variable cost (consumables) were assessed bottom-up by means of a patient data management system. Personnel cost were calculated per day of treatment. Actual total costs were compared with the hypothetical DRG reimbursement. RESULTS: Total actual cost for ICU services was €5.58 million (mean per patient: €4697), while the corresponding DRG-based total reimbursement was €2.98 million (mean per patient: €5.13). The cost deficit is statistically significant (P < 0.001). Underfunding of the costs was evident in most DRG classifications, some with reimbursement deficits of over 80%. These differences showed a significant and negative linear correlation with ICU LOS (R = −0.593, p < 0.001). CONCLUSIONS: The computed G-DRG based reimbursement for ICU services differed significantly from the actual costs incurred. These findings highlight the importance of a more realistic and fair DRG-based reimbursement of hospital ICU services in Germany, particularly with respect to patients with extended LOS.

PHARMACOECONOMICS IN HEALTH CARE—DECISION MAKING: A SURVEY ON CHINA HEALTH CARE SYSTEM

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With the rapid Health care reform and increasing cost-containment pressure on China's health care system, Chinese government authorities and hospital administrators have focused more attention on the importance of health economics to allocate the scarce resources more efficiently. **OBJECTIVE:** The purpose of this study was to identify key decision criteria and source of information that government officials, hospital administrators and physicians perceive as important in drug pricing and reimbursement process and establishing clinical practice guidelines respectively. Moreover, obstacles to using pharmacoeconomic evaluations in decision-making were also identified. **METHODS:** Data were gathered through a survey questionnaire administered to various members of Health Authorities, Health Insurance Bureaus, State Food and Drug Administrations and hospitals throughout China. There were 390 member organisations of which 65% responded. Factor analysis CANOVA and Chi-square test were applied. **RESULTS:** The findings indicated that current Health care policies/guidelines supplied by government authorities are considered the most important source of information in decision making (mean score 4.28) as opposed to clinical or industry input. Cost Effectiveness arguments are considered the most important decision criteria (mean score 4.22). Although there was interest in pharmacoeconomics, these studies in China were limited (90.2%) and insufficient pharmacoeconomic knowledge among health administrators (89.0%). There were also difficulties in translating study results into practical health care administrative and clinical usage. **CONCLUSIONS:** With the increasing interest and need for Pharmacoeconomics in China’s Health care decision-making, training would be helpful in assisting government officials and hospital staffs’ knowledge to make cost-effective health care decision. Assessing global pharmacoeconomic guidelines would also be useful to pursuing China’s pharmacoeconomics interest.

**THE EUROPEAN NETWORK OF HEALTH ECONOMIC EVALUATION DATABASES (EURO NHEED) PROJECT**

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**OBJECTIVES:** To provide an outline of the European Network of Health Economic Evaluation Databases (EURO NHEED) project, whose purpose is to implement, in 7 European centres based in France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom, databases on the economic evaluation of health care interventions. **METHODS:** The network is based on two existing and well-established resources, namely the UK’s NHS Economic Evaluation Database (NHS EED), and France’s Connaissances et Décision en Économie de la Santé (CODECS) database. Steering and scientific committees have been established to guide methodological and administrative developments throughout the implementation and eventual management of the project. **RESULTS:** EURO NHEED is funded by the European Commission for an initial period of 3 years, and covers 17 European countries. After full implementation it will provide its users with bibliographic records, detailing the main characteristics of all included studies. In addition, structured s will be provided for articles identified as full economic evaluations (cost-benefit, cost-effectiveness or cost-utility), which will offer a detailed critique of the findings and the methodology used. These databases will be accessible free of charge on the Internet. A common training programme has been conducted, and a methodological guide produced which will ensure consistency in the methods and practices adopted by participating centres. **CONCLUSION:** The EURO NHEED project is the first attempt to develop such a resource on a multi-national basis. The project is bringing together health economists and information scientists from Europe and beyond to provide a number of benefits in the field of Health Economics. These include harmonisation and increased understanding regarding the theory and methodology of economic evaluation, and improved interpretation of the generalisability of studies. The project will therefore advance the state of the art in collecting, summarising, critiquing and disseminating health economics evaluation studies conducted within Europe.

**THE IMPACT OF CHANGING REIMBURSEMENT MECHANISMS: THE CASE OF PROPHYLAXIS IN BELGIAN HOSPITALS**

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**OBJECTIVES:** In 1997, the Belgian reimbursement for prophylaxis in surgery changed from FFS to a lump-sum per operation. We investigate whether this altered the medical practice w.r.t. the administration of prophylaxis. **METHODS:** The entire population that had undergone one of these six operations was included: endoscopic resection of prostate, surgical treatment of discal hernia, arthroplasty of hip with total prosthesis, reconstruction of cruciate knee ligaments by arthroscopy, total hysterectomy (abdominal) and total hysterectomy (vaginal), accounting for 159,981 operations and a cost for antibiotics of €10853 million. Cluster analysis is performed to identify outliers, classify cases/patients with similar antibiotic treatment, compare both periods, and condense information. Different treatment patterns emerging from the cluster analyses were examined to assess the appropriateness of the administered products. **RESULTS:** A drastic and immediate change in medical practice: 11% of the patients did not receive antibiotics anymore contrasting with the situation before, where all hospitals administered antibiotics to all patients. Large differences