Abstracts

HEALTH CARE USE & POLICY STUDIES—Health Care Costs & Management

**PHP28**

A COMPARISON OF HIGH-COST HEALTH CARE PROGRAMS AVAILABLE IN THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM

Sagiova MG
Roche Brazil, Sao Paulo, SPBrazil

OBJECTIVES: To compare the yearly expenditure per capita of the following high-cost health care programs available in the Brazilian public health care system: severe Rheumatoid Arthritis, renal replacement therapy, Hepatitis, Aids and Oncology.

METHODS: A survey in the official health care database (http://www.datasus.gov.br) was conducted to gather: 1) the amount of resources spent (annual budget), and 2) the number of patients treated in each program in 2007. Those data were then cross- checked with some public information found in the Ministry of Health website (www.saude.gov.br) and from medical societies. For the Aids program an article published by Grangeiro et al. in 2006 was used since it resulted from an extensive research and both data on drugs expenditure and the number of patients in 2007 were not available in the official health care database. Based on that article the annual budget and number of patients for the Aids program were updated by the official inflation rate and the official incidence rate, respectively. Then the yearly expenditure per capita for each program was calculated. A limitation of this study is the expenditure per capita calculated for the Oncology program. Since there is no official data regarding the prevalence of oncological diseases in Brazil only new cases (incidence) were considered for the calculation, so the final expenditure per capita is likely to be lower than the one calculated in this study.

RESULTS: Severe Rheumatoid Arthritis: R$82,960,720 for 2,098 patients = R$39,120 per patient per year (the highest expenditure per capita); renal replacement therapy: R$1,397,958.956 for 73,605 patients = R$18,993 per patient per year; Hepatitis: R$295,428,000 for 44,598 patients = R$6,308 per patient per year; Aids program: R$1,062,316,834 for 168,417 patients = R$6,308 per patient per year; Oncology: R$1,026,017,544 for 472,000 patients = R$2,174 per patient per year (the lowest yearly expenditure per capita). CONCLUSIONS: Findings indicate significant differences in the yearly expenditure per capita for each program. Further studies are recommended to extend this analysis and to explore the reasons for those differences.

**PHP29**

MICROCOSTING STUDY OF THE DAILY ICU COSTS IN THREE COUNTRIES

Tan S 1, Martin J 2, Pezzi A 1, Bakker J 1, Neurohr C 1, Pirelli A 3, Hakkart-van Roijen L 1, Welte R 4
1Erasmus MC, University Medical Center, Rotterdam, The Netherlands, 2Kliniken des Landkreises Göppingen gGmbH, Göppingen, Germany, 3Università degli Studi di Milano, Milan, Italy, 4GlaxoSmithKline, Munich, Germany

OBJECTIVES: To estimate the daily costs of intensive care unit (ICU)-stay with a focus on mechanical ventilation (MV) in three European countries.

METHODS: This retrospective cost study was conducted in one German, one Italian and three Dutch adult medical-surgery ICUs, from a hospital perspective. A microcosting approach was applied, implying that all relevant cost components were identified and valued at a detailed level. Direct cost included medical imaging services, laboratory procedures, drugs, fluids, disposables, inpatient stay, and labour. Indirect costs consist of overheads and capital. Resource use was primarily derived from hospital administrative databases. Unit costs were acquired from financial hospital databases and hospital pharmacy databases. Overheads and capital costs were appointed to patients using a marginal mark-up percentage. The reference year was 2006.

RESULTS: Total daily costs amounted to €1225 in Germany, €1472 in Italy and €1911 in The Netherlands, with labour and overheads as the most important cost drivers. Daily total costs were €1040 in Germany, €1333 in Italy and €1243 in The Netherlands. Hence, the cost differences between the countries were mainly driven by diverging indirect costs. Mechanical ventilation in critically ill patients was associated with a 21% to 29% cost increase. CONCLUSIONS: The direct but not the indirect costs of intensive care are in the same range in Germany, Italy and The Netherlands. Mechanical ventilation leads to substantial higher ICU costs.

**PHP30**

COST DRIVERS IN THE PHARMACEUTICAL MARKET IN GERMANY IN 2007

Haussler B, Hoyer A
IGES Institut GmbH, Berlin, Germany

OBJECTIVES: To determine the effects of different drivers for changes of the overall expenses for pharmaceuticals in Germany’s social health insurance (SHI) from 2006 (26.4 bn Euro) to 2007 (28.0 bn Euro). To determine the role of shifts towards the prescription of more costly follow-on drugs.

METHODS: Analysis was based on sales data on 90,027 different drug preparations having been prescribed in 2006 and 2007. An overall of 636 m (2006) resp. 650 m (2007) prescriptions represented 97% of all drug expenses of the SHI. By calculating index numbers we estimated the influences of quantities, prices, and eight structural components, amid others shifts between classes of drugs as well as shifts between compounds within classes of drugs. The latter indicates shifts towards more costly follow-on drugs. Analyses have been carried out for 95 different indication groups.

RESULTS: Sales increased for 1.6 bn Euro and the prescribed quantities of drugs for 1.9 bn from 33.2 bn to 35.1 bn DDD. The higher quantity of prescribed DDD enhanced sales by 2.2 bn Euro. Reduced prices resulted in savings of 0.2 bn Euro. A higher cost efficiency of prescribing was also achieved by an increased prescription of generic drugs, larger packages and drugs of higher dosage strength summing up to savings of about 0.5 bn Euro. In the two drug groups with the highest quantity of prescribed DDD (ACE inhibitors: 3.2 bn DDD; statins: 2.1 bn DDD) the proportion of Ramipril and Simvastatin increased from 49 to 57% and from 79 to 85%, respectively.

CONCLUSIONS: The most important cost driver was the increase of the number of prescribed DDD reflecting unserved needs in frequent indications in former years. Shifts to more costly follow-on drugs had no impact on the overall costs.

**PHP31**

IS PATENT PROTECTION CREATING OPPORTUNITY FOR INNOVATION?—THE ALENDRONATE CASE IN BELGIUM

Arickx F, Pierlet M, Soete E, VanHaeren E, Verplanken P, VanWilder P
RIZIV National Health Insurance Agency, Brussels, Belgium

OBJECTIVES: To estimate the budget impact of the reimbursement of a follow-up on patent medicine prior to the patent expiration of a follow-up on patent medicine prior to the patent...