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How do hospitals cope with rising drug acquisition costs?

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Pharmacoeconomics is a specialised area and is being handled in increasingly sophisticated ways. Good systems balance cost to the health service with efficacy, generic substitution with incentives to the pharmaceutical industry; input from doctors, pharmacists, managers, financial experts and politicians.

Our guest editor for this issue's pan-European Practices topic on "Drug Acquisition Costs" is Dr Andreas Luginbühl, the "Chief Economist" of the Swiss Society of Hospital Pharmacists, who devised the questions. The Swiss situation is historically highly diversified, with an absence of central policymaking. However it is changing, with the inauguration of Swissmedic (the Swiss medicines agency) at the start of 2002 and plans to introduce a diagnostic related group (DRG) system throughout the country within the next few years. A debate about models of financial management is ongoing.

Below you will find summaries of the replies to our questionnaire. Thank you to the seven countries that took the trouble to reply, especially to Austria, whose contribution follows.

In which groups of medicines have you detected the most important increase/decrease in costs over the last three years?
The hospitals surveyed in Austria, Ireland, Italy, Spain and Sweden report large increases between 2003 and 2006 in the amount spent on antineoplastic and immuno-modulator drugs (15% in Spain to >70% in Italy) although Spain also reported a 35% drop in expenditure on taxanes, due to the appearance of generic drugs (paclitaxel). Ireland, Italy and Poland also report about a 40% increase in the sums spent on anti-infective drugs. The appointment in many Irish hospitals of pharmacists with special responsibility for anti-infectives, should result in better prescribing and improved cost control. The UK reports an overall 10% rise in the drugs bill every year for the last 10 years. The Swedish hospital spent 30% less on calcium antagonists and anti-inflammatory agents in 2006 than in 2004.

In Switzerland, the increase in the antineoplastics group is the major problem, with new, expensive drugs. In most hospitals with cancer departments their cost has grown to more than a third of the total drugs budget. The majority of antineoplastic treatments are in outpatients, so there is a significant difference between inpatient and outpatient costs. Whereas the costs for inpatients have stabilised or are even decreased slightly, the costs in outpatient treatment are currently increasing by 10% to 30% per year.

Does your country use DRGs or other forms of case-related fixed costs?
Many countries use the system known as DRG in an explicit attempt to control cost/resource expenditure. In our sample, Italy, Ireland and Spain answered in the affirmative. In most Spanish public hospitals, the DRG system is used by the authorities, along with other parameters, to allocate the annual budget, but not specifically on drugs. However, Poland and Sweden do not use a case-related fixed costs system. In Austria it is 50% based on DRG, which has a considerable effect on the system.

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The current UK NHS contracting process between providers and purchasers of health care adopts health resource groups (HRGs) which are designed to group together episodes that are clinically coherent and consume similar amounts of resources. DRGs form the basis for HRGs. However HRGs are not used as a means of distributing or controlling resources.

In Austria, Italy and the UK exceptions to the general reimbursement rule are made for drugs such as chemotherapy, HIV and other very expensive drugs.

Is the selection of medicines in your hospital based on pharmacoeconomic data and if yes, to what extent do these data influence the decisions?
Poland, Spain and Sweden say that economic considerations are "always included" or "greatly influenced" by monetary considerations. In Spain, every new drug approved has to be evaluated for its comparative cost. Italy reports drug selection is becoming more influenced by political attempts to guarantee healthcare services to all citizens. In Austria, new drug entities (at least in

the hospital setting) are available to doctors and patients almost without any restrictions. Pharmacoeconomic evaluation prior to implementation in hospitals is not commonly applied.

Cost control in the UK is sophisticated and indirect. NICE performs Health Technology Assessments and weighs up costs, quality of life data and indirectly rations the availability of new, expensive drugs. Each hospital or group of hospitals has its own formularies and guidelines, about which pharmacists are consulted. Drug prices are set nationally by the "Drug Tariff" with special categories for generic medicines, parallel imports. Linked to this there is a supply chain excellence programme.

In Ireland, use of pharmacoeconomic data in the selection of medicines is quite limited. In Switzerland, the authorities have not yet included cost data in the drug approval systems. Of course most hospitals try to make pharmacoeconomic-based decisions, but there is a lack of data and sometimes also of knowledge.

What statistics on medicines do you send to the physicians and/or the management of your hospital and how often?
In Poland, cost analysis data / statistics on

Managing drug costs in Austria

The following mainly reflects the situation of a 720-bed hospital with a strong focus in oncology and is based upon personal opinion. The situation in other Austrian hospitals may be different and also the judgement of the current situation may be different.

Total drug expenditure in my hospital increased by 19% from 2003 to 2006. The one outstanding group to increase was cytotoxics/MABs, on which expenditure doubled in that time. These figures apply to inpatients because there is no outpatient drug treatment above basic supply but there is a strong tendency to shift cytotoxic therapy towards day clinic structures (patients do not stay overnight but are formally inpatients).

We provide a quarterly financial report to the managerial board and a more detailed annual report. Other reports and analyses are generated upon request.

The Austrian health system is generally acknowledged to be one of the best worldwide, offering equal access to care and services on a high level. Health expenditure according to the OECD health data was given as 8.2% of the GDP in 2002. A recent study taking into account governmental coverage for hospital services says this figure is rather 10.9% - significantly above the EU average – and 46% of total health spending is in the hospital setting (*Industriewissenschaftliches*, Vienna 2002).

In the Austrian DRG system only roughly 50% of total hospital costs are covered by income related to DRG cases and MEL (*Medizinische Einzelleistungen*). The other 50% is covered directly by the county/government. The way the DRG system works in Austria results in shorter stays and an increase in the number of hospital admissions and the number of medical procedures (per patient and in absolute figures). DRG in Austria has not resulted in a decrease in drug expenditure. Cytotoxic therapy is covered by MEL, so each therapy administered increases the income of the hospital (although the cost coverage is only 50%). Austrian hospitals are in a competitive situation in which they try to survive by increasing the number of procedures (operations, chemotherapies, etc.) and the degree of specialisation in order to differentiate from competitors.

"Top competence in oncology" means that cost developments in cytotoxics and monoclonal antibodies have to be interpreted as "investment in the strategic position by offering state-of-art therapy (almost) without any limitation". So we are limited in our search for cheaper alternatives to drugs for which there are generic competitors.

If medicines were selected on pharmacoeconomic grounds, several "state-of-the-art" treatments in oncology would at least be in question. As it is, individual hospitals are not in a position to conduct their own Health Technology Assessments (HTAs), and we also lack a national system. It would be highly advisable to apply such tools on a national level and to focus hospital funding mainly to procedures with proven cost-effectiveness.

In the hospital setting there are quite big discounts regarding drugs and drug groups with a competitive market situation. Some drugs are even given to hospitals for free due to marketing considerations (initiation of follow-up prescriptions in the outpatient setting), e.g. to date nearly all proton pump inhibitors, antihypertensives and cholesterol synthesis inhibitors are provided to hospitals at no charge. For antibiotics in a generic situation 60% off list prices and more are not uncommon.

On the other hand most top-cost drugs are not in a competitive situation. So decreases in drug expenditure due to generic competition (or competition between similar drugs) are drastically overcompensated by increases in new drug entities and expansion of licensed indications.

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the use are sent regularly. There are different models in different hospitals: e.g. to physicians (head of the ward) monthly (for chosen wards) or quarterly for every ward, half-yearly for director of the hospital. Another model is to physicians (head of the ward) monthly for chosen wards and to the hospital economic unit every month for every ward, to the hospital director when needed. Analyses contain data on expenditure on drugs by groups: medicines (detailed to drugs generating the highest costs, ATC groups, antibiotics due to their cost and the use in the groups), medical products, contrast agents, sutures, vaccines, dressing materials. A detailed analysis (for the director) also contains a comparison of expenses in previous years and includes analysis of individual wards. If a significant change in the use of any drug or group of drugs is noticed, reasons are analysed by the Therapeutic Committee and then standard procedures can be changed.

Ireland, Italy and Spain also require detailed monthly analyses; in Austria it is quarterly. With Nordic efficiency Sweden only sends reports to managers every six months and "there are few responses to the material sent out". In all countries the pharmacy has a large say in what is purchased, but feedback is accepted from the reports, or a drug and therapeutics committee is the setting for the decision. In Switzerland, there is no regulation and each hospital pharmacy proceeds freely.

All European countries pass on goods to wards without extra charges. In Ireland, cost centres outside the hospital may incur a mark-up, but this is under review. In Switzerland some hospital pharmacies put extra charges on the goods, others don't and the practice is under discussion.

Do hospitals in your country get discounts on drug purchases? If yes, by what amount?

Hospitals in Ireland get purchase discounts in an agreement between the Health Ministry and the pharmaceutical companies. This is currently 15% and is obtained when the total value of an order for the company is over an agreed minimum amount. A range of other discounts and bonuses apply in agreements reached with individual companies. This is intended to stimulate and retain the market share of these companies. They do not differentiate between drug companies based on their country of origin, by groups of drugs they sell or by any other criteria. Drugs are chosen (when there are alternatives) on quality, price and presentation.

In Italy, hospitals acquire medicines through the drug market, with a compulsory minimum discount of 50% for all non-internationally recognised drugs. A variable discount to be agreed with the Italian medicines agency applies for drugs recognised by international procedures.

The cost of most hospital drugs is fixed by national contracts in Poland. For drugs not covered by a contract, there are occasional discounts or special offers.

In Sweden, individual hospitals negotiate prices with wholesalers. At the end of the month a discount is repaid, depending on volume. From time to time there are special offers.

In Spain, all hospitals get generous discounts compared to the prices charged to the primary healthcare sector. Competition and generic alternatives are helpful.

In the UK, the Pharmaceutical Price Regulation Scheme (PPRS) has recently been reviewed to assess value for money for the NHS, combined with appropriate incentives for pharmaceutical companies to invest in new medicines. The report recommends "The Government should reform the PPRS, replacing current profit and price controls with a value-based approach to pricing which would ensure the price of drugs reflect their clinical and therapeutic value to patients and the broader NHS". It is complex and will require careful consideration.

In Switzerland, purchase discounts are allowed as long as their amount doesn't exceed a certain value – unfortunately this threshold has not yet been defined by the authorities.

Conclusion

All the countries that answered the survey reported increasing drug costs, mainly in antineoplastics and anti-infectives. Each country has developed or is developing strategies to handle this situation. The big challenge will be how to manage the costs and the limited financial resources without loss of quality of the basic drugs supplied. It is helpful for each country to look from time to time beyond its frontiers and despite differences in the healthcare systems to learn from the others. The EJHP is planning a full series of papers on pharmacoeconomics in 2008.

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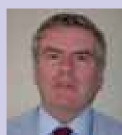

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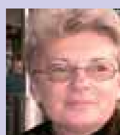

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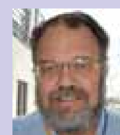

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