Strategies to control the quality and cost of medication use are largely dependent on the ability to alter selection of medications. Previous models of prescribing behavior have focused on physicians. In the hospital setting, clinical pharmacists and formulary committee members are also key players in medication decision-making. Differences between physicians, formulary committee members, and clinical pharmacists have not been compared. Knowledge of these differences could have importance in predicting the effectiveness of strategies designed to influence medication use. OBJECTIVE: The objective of this study was to describe and compare the opinions of physicians, clinical pharmacists, and formulary committee members with respect to key factors that influence medication prescribing in community hospitals. METHODS: Physicians, clinical pharmacists, and formulary committee members were solicited to participate. A trained interviewer administered a standardized questionnaire designed to elicit opinions of participants regarding the importance of factors thought to influence the prescribing of medications. Responses were described using descriptive statistics, and differences between the groups were determined by Post hoc analysis. RESULTS: A total of 150 individuals participated in the study. Safety, effectiveness, formulary status, and restrictions on prescribing were considered highly influential by all participants. Physicians rated the availability of drug samples, and personal experience higher (more influential on prescribing) than clinical pharmacists and formulary committee members. Clinical pharmacists and formulary committee members rated the influence of recommendations by clinical pharmacists, prescribing guidelines, and cost or cost comparisons higher than physicians. Factors that were drug-related, or that involved policy-related programs tended to be more influential than indirect factors. CONCLUSIONS: Those who seek to implement programs to alter medication use should recognize and employ factors that are most influential in the decision-making process. Further, it may be important to consider differences that exist between key participants in the medication use process.

PHP21
E-COMMERCE ON PHARMACEUTICALS: A POSITIVE TREND OR A TECHNOLOGICAL DEAMON?
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OBJECTIVE: The concept of e-commerce on pharmaceuticals is a controversial issue affecting both U.S.A and Europe. This report will evaluate the benefits and disadvantages of online pharmacies for consumers, pharmacists, and the pharmaceutical industry. METHODS: The legal background to online pharmacies in Europe will be examined in accordance with the differential pricing and reimbursement issues of some selected European countries. The reasons for this phenomenon are going to be analyzed. The easy access, time saving and privacy are the main explanations, but what about prices? Is internet an indirect way of parallel trade in pharmaceuticals? What precautions should be taken for both patients and companies of e-commerce in pharmaceuticals? RESULTS: Issues of potential risks to public health because of handling outside regulated distribution channels. Additionally, lack of prescription in accordance with arrival without instructions for proper use or in an incorrect dose might put the health of the patients in danger. CONCLUSION: The phenomenon of e-commerce on pharmaceuticals is a “headache” issue for all the involved parties in the medical world, the doctors who can’t control their patients medicines, pharmacists who lose market share, patients who take medicines which in many cases might cause them side effects because they don’t have the permission of the doctor and last but not least pharmaceutical companies which they can’t control their stocks since patients from different countries order medicines via internet with lower prices than they are being sold in their country.

PHP22
TRENDS IN APPROVALS BY THE PHARMACEUTICAL BENEFITS ADVISORY COMMITTEE
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OBJECTIVES: In Australia, drugs are only publicly subsidised and listed on the Pharmaceutical Benefits Scheme (PBS) if the Pharmaceutical Benefits Advisory Committee (PBAC) has determined that the drug is cost effective. This process is in addition to the regulatory process including the Australian Drug Evaluation Committee (ADEC). Critics of the current scheme have commented that requirements of the PBAC have become more onerous in recent years and that the listing of important new drugs is being delayed. We sought to analyse all published recommendations of the PBAC meetings from December 1999 to June 2003 to determine if there is a relationship between the date of a drug’s regulatory approval, its PBAC recommendation and subsequent listing on the PBS. METHODS: There were 4 dates associated with each application: ADEC meeting date, PBAC meeting date, projected PBS listing date (the first date an approved drug could be PBS listed) and actual PBS listing date. We used a logistic regression model to identify variables associated with successful PBS listing, including the year of the PBAC meeting, submission type, form of economic analysis and requested listing restrictions. A second analysis was performed with the outcome variable being ‘approval within 5 months of meeting date’, to overcome any bias against 2003 applications that had a shorter follow-up period. RESULTS: The analysis showed ‘Year of PBAC meeting’ was statistically significant for successful PBS listing. The other variables were not statistically significant. Using 1999 as the reference year, the odds ratios were as follows: 2000 = 0.6889, 2001 = 0.5500, 2002 = 0.3917, 2003 = 0.1000. Using the modified dependent variable (approval within 5 months) similar results to the above analysis were produced—the OR for variable Year remained statistically significant. CONCLUSIONS: The analysis of factors associated with PBS listing showed that there was a significant downward trend over the years in successful applications. This trend did not appear to be associated with the other factors listed.

PHP23
PHARMACEUTICAL PRESCRIPTION: COSTS AND FACTORS OF INFLUENCE
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OBJECTIVE: In France, for about 30 years, the level of the consumption of pharmacy strongly increased, which increased the public health insurance expenditure. Policies, who were applied, increased the costs of the patients. The physicians were blamed in those drifts. By knowing that the doctor does not have direct financial profits in the recommendation of the pharmacies, we try to understand if his implication direct or indirect in the increase of the level of consumption of medication is founded. This study examines the factors, which influence the prescription of medication of the physicians. METHODS: For the empirical study we used the national base of the data of the French physicians who were observed during the period from 1981 to 2000. The variables used are the seniority of the physician, the struc-
ture and the volume of his professional activity, the effects of the competition and locals’ standards. RESULTS: The behaviour of the prescription of the physician depend on his type of convention with the State. At the average, the physicians, who do not have the convention, prescribe 41 Euro of drugs per act, the physicians, who have the price of consultation fixed by the State, prescribe 36 Euro per act and the physicians, who can fix freely their price, prescribe 30€ per act. The prescription is a regulator of the level of activity (~3.65 for the physicians without the convention, 0.02 for the rest). We find an effect of complement between the pharmaceutical prescription and the prescription of sick leaves’ days. Competition has the influence upon the level of the regulation. CONCLUSIONS: The result of this study makes possible to define the inciting policies on the pharmaceutical regulation to ensure a greater effectiveness of the regulation of an ambulatory medicine.

**PHP24**

**QUALITY OF DECISION-MAKING BY THE PHARMACEUTICAL BENEFITS ADVISORY COMMITTEE (PBAC) AND THE IMPACT ON OUTCOMES**

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**OBJECTIVES:** In Australia, a drug is subsidised by the government only if the Pharmaceutical Benefits Advisory Committee (PBAC) evaluation has determined the drug to be cost effective. The government reviewed the quality of industry pharmacoeconomic analyses included in PBAC submission documents and reported that significant problems existed. It is likely, however, that the PBAC evaluation process itself could contain errors. We sought to determine the quality of the PBAC evaluations, their effect on decision-making and the outcomes of PBAC meetings.

**METHODS:** A survey was conducted to determine industry experience regarding PBAC decision-making over a period of six PBAC meetings. The questionnaire was designed to elicit information on good and poor decisions, and information needed to quantify the issues and their effects on submission outcomes. The questionnaire was divided into 2 sections, the first to elicit information on good and poor decisions and the second to quantify the issues and their effects on submission outcomes.

**RESULTS:** Of 35 questionnaires sent to pharmaceutical companies in Australia, 17 replies were received, a response rate of 48%. These 17 companies had sales that represented 47% of total pharmaceutical sales. The survey concluded that on average good decisions were made by the PBAC for only 36% of all submissions. The quality of the PBAC evaluation was related to the form of economic argument presented and whether the submission was a first or a subsequent (repeat) submission. If the submission used a cost-minimisation approach, the likelihood of the evaluation being good was 69%, compared with 38% for submissions that took a cost-effectiveness approach. The likelihood of a submission’s success was also related to the form of economic analysis used, 92% if cost-minimisation was used versus 63% for a cost-effectiveness approach.

**CONCLUSIONS:** Government subsidy decision-making is of variable quality, which varies the method of economic argument used and affects the probability of success for submissions.

**PHP25**

**ASSESSMENT OF THE IMPACT OF “ACADEMIC DETAILING” IN PROMOTING COST-EFFECTIVE GENERIC DRUG PRESCRIPTION AMONG AMBULATORY CARE PHYSICIANS IN WEST VIRGINIA**

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**OBJECTIVE:** Literature suggests that ‘Academic Detailing’ is a useful ‘evidence-based’ intervention in promoting rational drug therapy by encouraging appropriate use of cost-effective generic pharmaceuticals. This study examines possible impact of academic detailing on trends in change of proportions of generic drug prescriptions among ambulatory care physicians serving patients covered by a state health insurance program. **METHODS:** The study was conducted using retrospective data available from the pharmacy benefit management company serving the insurance program. The target physician population comprised of two experimental groups (Charleston, n = 251; Morgantown, n = 214)—the top 30th percentile of all the physicians in the areas chosen based on prescribing volume and average prescription cost. University-trained academic detailers visited them once every month and also provided them with educational materials. A “comparison” group (n = 359) was chosen similarly but was not visited by a detailer at any time. Monthly generic prescribing percent were determined for all three groups for a period of 12 months before the intervention and 6 months after the intervention. Two therapeutic classes with ample generic choices—antibiotics and anti-hypertensives, were studied. **RESULTS:** In case of antibiotic prescriptions, while mean increase in percent generic prescriptions went up in both the experimental groups (0.26 to 2.41 in Charleston; −0.18 to 2.35 in Morgantown), mean change in percentage generic prescriptions reduced further (−0.6 to −3.36) in the comparison group. Though over a much shorter intervention period—similar trends were observed with anti-hypertensive prescriptions. In Charleston, there was a sustained (mean rate of change over intervention period = 1.37) trend in increase in proportion of generic prescriptions while the proportion declined in the comparison group (mean rate of change over intervention period = −0.44). **CONCLUSIONS:** Academic detailing appears to be a promising strategy for maintaining or increasing generic prescribing by physicians in ambulatory settings.