SESSION II

HEALTH POLICY

PHP1

INTEGRATING HEALTH ECONOMICS INTO THE PRODUCT DECISION- MAKING PROCESS: LESSONS LEARNED FROM DECISION-MAKERS

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OBJECTIVE: The purpose of this study was to understand the decision-making process used when selecting ulcer-dressing products, and to ascertain the use of health economics in the decision process.
METHODS: Diverse groups of nurses highly involved in product selection were interviewed. The groups included five home-care nurses (Group 1), four acute-care nurses (Group 2), and five nurses who spent some time in LTC (Group 3). Discussions centered on 1) product switching triggering events, 2) key decision-makers, 3) mapping the decision-making process, and 4) understanding of health economics. Information about the key decision-makers at different institutions was discussed.
RESULTS: 1) Performance issues were the most common reasons for product switching (66%). Product availability was the most influential factor (48%). 2) No differences in product selection criteria were observed among nurses in home, acute and long-term care. However, level and role of the nurse in each setting influenced his or her part in decision-making and product selection. 3) Product evaluation and hands-on experience were the most important elements for selecting a new or replacement product. The ability to incorporate the product into customized patient protocols was also important. 4) While nurses were somewhat familiar with the term "cost-effectiveness," most preferred the term "value." Approximately half used such information to support wound-care product decisions. Nurses were more likely to consider a product supported by a straightforward economic assessment rather than a complex decision analysis.
CONCLUSION: Product selection relies heavily on trial evaluations. In addition, published health-economic studies are often too complicated. In order for health-economics research to inform decision-making in the wound-care market, studies should: 1) identify target audiences and address their decision-making needs; 2) "speak" to their audience by using terms familiar to decision-makers; and 3) present simplified diagrams, charts or models.

PHP2

GASTROINTESTINAL DRUG POLICY, DRUG SELECTION AND RESOURCE UTILIZATION— A COMPARISON OF THE CANADIAN PROVINCES OF QUEBEC AND ONTARIO

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OBJECTIVE: Canadian provinces have different policies on the reimbursement of proton pump inhibitors (PPIs) (Quebec open, Ontario restricted). This study examined the effect of these policies on the use of PPI and H2-receptor antagonists (H2RA), one-year gastrointestinal (GI) resource utilization and costs.
METHODS: Merged provincial databases from Quebec and Ontario were analyzed for new users of PPIs and H2RAs aged 66 or greater who began treatment between November 1, 1996 to October 31, 1997. GI related services and costs (GI drugs, physician visits, GI procedures and hospitalizations) were analyzed using multivariate regression equations on an intent-to-treat basis.
RESULTS: 82,314 Ontario and 19,719 (50% sample) Quebec patients were identified as new GI drug users. The patients were similar in age, gender and length of follow-up. At the initial visit, 12.5% of Ontario and 24.1% of Quebec patients were prescribed PPIs, and 63.7% of Ontario and 50.0% of Quebec patients were prescribed H2RAs. GI hospitalization occurred in 1.7% of Ontario and 1.4% of Quebec patients ($p < .01$). Endoscopy rate for Ontario was 4.7% and 9.1% for Quebec ($p < .001$); upper GI radiography rate was 13.8% for Ontario and 9.9% for Quebec ($p < .01$). Factors related to PPI versus H2RA prescription included residence in Quebec (OR 2.3), initial prescription by GI specialist (OR 4.1), other specialist (OR 1.9) and endoscopy (OR 1.9).
CONCLUSION: Restrictive drug policy influenced both drug and other resource utilization. In both provinces, PPI use was associated with increased disease severity and resource utilization.

PHP3

MACRO-ECONOMIC ANALYSIS OF HEROIN MARKETS IN THE EU AND THE IMPACT OF SUBSTITUTION TREATMENT

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OBJECTIVES: To develop a macro-economic model to assist European policy makers in assessing the effects of different measures to reduce problematic drug use.
METHODS: Existing economic behavior theories and different modalities of heroin use provided a number of principles and a framework out of which a cohort-level macro-economic model was created. A 20-year, Markov state-transition model was developed, within which a (potential) cohort of the adult general population makes

transitions from one state to another within discrete time frames (6 months). The states were: non-user; has sampled (has tried); non-dependent user; ex-user; dependent-not treated; dependent-treated; abstinent; death. The average quantity of heroin demanded was determined at the cohort level, based on published price and income elasticities. Scenario-analyses showed the impact of variations in different parameters and the effects of different policy measures on the results. Using a bottom-up approach, the results were then aggregated to a population level.
RESULTS: Calculating the 20-year demand for heroin on a cohort level generated an average demand between 5.96g to 20.45g per European citizen, depending on different variables in the model. Sub-analyses showed that a 50% increase in the price level of heroin could have a negative impact of 72% on total heroin demand. A decrease in sampling of 50% generated an almost equal impact on total heroin demand. Analyzing the impact of substitution treatment indicated that easier access to treatment and a longer follow-up after completing treatment would have a greater impact than the success of treatment itself in achieving abstinence.
CONCLUSIONS: This is the first macro-economic model designed for policy makers to assess the impact of measures to control problematic drug use. Measures aimed at preventing a first heroin dose and controlling the price of heroin seem to be worth focussing on.

PHP4

WHAT IS A VALID PRESCRIBING INDICATOR?

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OBJECTIVE: To develop criteria for testing the validity of indicators of prescribing cost, efficiency or quality.
METHODS: Our methodology was based on techniques used to validate psychological tests. Face validity was used to test the construct of the prescribing indicator (i.e. what is it trying to measure?). Two tests of external validity were used to relate the performance of each indicator to other measures of the same construct (concurrent validity and predictive validity). In addition we used a published method to test the robustness of ranking of General Practices by each prescribing indicator. We obtained data for all 78 General Practices in Tayside for the years 1993-97.
RESULTS: We identified five prescribing indicators that had been previously tested for face validity in a two-stage Delphi consultation study. These were: 1) the ratio of bendrofluazide 2.5mg to total bendrofluazide items; 2) the ratio of generic items to all items; 3) the ratio of trimethoprim to trimethoprim/sulphamethoxazole; 4) the ratio of antibiotics from the primary-care formulary to all antibiotics; and, 5) the ratio of maintenance dose of proton pump inhibitors to all PPI items. Crude ranking of general practices compared well with the results of the more robust rankings generated by the Marshall and Spiegelhalter ranking. There were significant improvements in the achievement of all five indicators by Tayside practices from 1993 to 1997, and ranking of each practice was robust over time. However, there was no relationship between an individual practice's ranking by different indicators.
CONCLUSIONS: Differences between practices are statistically robust and practices have shown significant improvements in all indicators over time. However, the absence of concurrent validity between indicators casts doubt on their use as measures of general prescribing quality.

PHP5

USING PRESCRIBING DATA TO ESTIMATE PREVALENCE OF CHRONIC ILLNESS IN THE REPUBLIC OF IRELAND

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OBJECTIVES: We use the Chronic Disease Score methodology to estimate the prevalence of a number of chronic conditions in the Republic of Ireland from routinely available prescribing data, which we then compare with epidemiological estimates.
METHODS: Using automated outpatient pharmacy data, measures of chronic disease severity called Chronic Disease Scores were constructed. We use these to measure disease prevalence. Since many drugs have multiple indications, incidental users and the chronically ill must be distinguished. Any person receiving four or more prescriptions within a 12-month period for a chronic disease category is identified as suffering from that chronic disease. Prevalence estimates are compared with estimates for these conditions based on a review of the epidemiology literature. Data refer to the General Medical Services (GMS) scheme in Ireland. The GMS provides free primary care to those on low income and to other hardship cases, covering approximately 31% of the Irish population. Data on drugs prescribed to all individuals on the GMS scheme in four health board areas were collected for the period from September 1999 to August 2000, representing a total of 415,271 people or approximately 37% of the GMS population.
RESULTS: Estimates of prevalence based on the Chronic Disease Score are similar to epidemiological estimates. This is especially true for conditions such as diabetes, epilepsy and asthma, and less so for depression and other mental illness, where under-diagnosis is commonplace.
CONCLUSIONS: The results suggest that prescribing data is a rich source of information on morbidity in the community. It is locally sensitive, timely and cheap to collect. As long as certain caveats are applied, this type of information has many uses in the surveillance of the public's health.