CONTRIBUTED POSTER PRESENTATIONS

POSTER SESSION I

HEALTH CARE USE & POLICY STUDIES

MEDICATION SAFETY IN COMMUNITY PHARMACY: IMPACT OF SOCIOTECHNICAL FACTORS ON DISPENSING ERRORS
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OBJECTIVES: Consumers expect pharmacists to dispense medication accurately, efficiently, and conveniently. In this environment, opportunities exist to investigate how medication safety may be compromised when cognitive processes interfere with sociotechnical (interaction of the social and technological systems) variables to cause dispensing errors as perceived by pharmacists in community practice. METHODS: Attitudinal items relating to the sociotechnical aspects of pharmacy design, drive through window pick-up service, and automated dispensing system use were evaluated using a five-point Likert-type scale with respect to dispensing errors and communication, prescription processing, prescription volume, and physical mobility in the pharmacy. A response rate of 45% (n = 429) was obtained from a two-page survey that was mailed to a geographically stratified random sample of community pharmacies in the United States. RESULTS: Pharmacists attributed 80.3% of the perceived dispensing errors to cognition and 15.8% of the errors to pharmacy design. Significant differences (p < 0.05) were observed for the sociotechnical variables related to pharmacy design, drive through window pick-up service, and automated dispensing system use. The perceived dispensing error rate averaged among the three pharmacy settings (mass merchant, chain, and independent pharmacies) was 0.057%, and the number of dispensing errors was positively and significantly (p < 0.001) correlated with prescription volume. CONCLUSION: Perceptions of dispensing errors by pharmacists are influenced by pharmacy design, drive through pick-up window service, and automated dispensing system use. From a policy perspective, greater effort is needed to determine how cognitive processes relate to sociotechnical variables in this environment, and how standards for medication safety can be maintained and improved.

WASTE OF DRUGS IN TURKEY
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OBJECTIVES: We investigated drug usage in Ankara and estimated the cost of unused medicines to social security agencies. METHODS: A questionnaire was structured to find out the drug storage profile in 2004, 215 families in 2006, living in central Ankara and compare drug usage behaviour between 2 years. The questionnaire had two parts, the first included the demographic properties of the families. The second part included any drug found in their house, the size of the package, the unused amount of the drug and expiry date of drugs. RESULTS: About 90% of the families receive drugs from social security agencies in 2004, 99% in 2006. The mostly found three drugs were Aspirin® (acetyl salicylic acid), Vermidon® (paracetamol), and Mesulide® (nimesulide) in 2004, And Vermidon® (paracetamol), Aspirin® (acetyl salicylic acid), Majezik® (Flurbiprofen) in 2006. When ingredients were analyzed, the three, mostly found, active compounds were paracetamol, multivitamin preparates, and acetyl salisilic acid in 2004, and paracetamol, acetyl salisilic acid, multivitamin preparates in 2006. The drugs with the largest amount of packaging were found to be the most wasted. In 2006, 53% of drugs were completely or partially unused. Thirty-one percent of them were completely unused. Among the drugs wasted some antibiotics such as sulfamicillin and co-amoxilav were higher rate. CONCLUSION: This survey shows that there is a great deal of drug waste (product and $), in Turkey. We estimated that Turkish Social Security Agencies are wasting more than 1 billion US $ just for never used drugs and another 1 billion US $ for partially used drugs (Turkish drug market is about 7 billion US $). Drug expenditure is, by far, the highest proportion of the Turkish health costs expenditure (about 60% total health cost expenditure), and it creates a heavy financial burden on the Turkish government.

PRESCRIPTION DRUG COST-SHARING AMONG COMMERCIALLY-INSURED CHILDREN AND ADULTS WITH CHRONIC ILLNESS
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OBJECTIVES: Few studies examine the effects of higher prescription drug cost-sharing on children, although they are subject to the same cost-sharing provisions as adults. Children also are dependent upon parents to act in conjunction with physicians as agents in negotiating the health care delivery system. We examine the effects of prescription drug cost-sharing on prescription drug utilization for children and adults diagnosed with persistent asthma. METHODS: A repeated cross-section design was used to study the effects of prescription drug cost-sharing on asthma drug utilization. Multivariate models were estimated to assess the effects of cost-sharing on asthma drug use (any asthma drug use, number of asthma prescriptions, and number of prescriptions conditional on use). Standard errors were adjusted for clustering by patient for patients appearing in more than one year. The 2000 through 2003 MarketScan database was the data source.
source, representing the health care experience of enrollees in employer-sponsored health plans in the U.S. The study population consisted of 22,985 children 5 to 17 years old and 56,381 adults 18 to 54 years old, meeting the HEDIS criteria for persistent asthma in 2001 or 2002. RESULTS: Higher copayments for asthma prescription drugs did not affect the use of asthma prescription drugs for children with asthma (any use, number of prescriptions or number of prescriptions conditional on use (p > 0.10)). Conversely, adults with asthma were price-sensitive to copayments for asthma drugs on all measures of use (p < 0.01). These findings also held for children and adults who were diagnosed with asthma in both years. In addition, parents who children with asthma had tended to be less price-sensitive than other adults. CONCLUSION: Commercially-insured parents in employer-sponsored health plans may be less sensitive to prescription drug prices, and may err on the side of caution by providing medications to their children with asthma.

OBJECTIVES: Although the relationship between physician waiting times and patient satisfaction has been examined, the influence of subsequent time spent with the physician on this relationship yet remains to be explored. This study examined the relationship between patient waiting times, time spent with the physician, and patient satisfaction ratings with primary care physicians. METHODS: Cross-sectional survey data on a sample of 5030 patients who rated their physicians on a web-based survey developed to collect detailed information on patient experiences with health care. The survey included self-reported information on wait times, time spent with physician, and patient satisfaction. RESULTS: Longer waiting times were associated with significantly lower patient satisfaction (p < 0.05); however, time spent with the physician was the strongest correlate of satisfaction with physician (partial rho = 0.51, p < 0.001). The decrement in satisfaction associated with long waiting times is substantially reduced with increased time spent with the physician (5 minutes or more). Importantly, the combination of long waiting time to see the physician and having a short physician visit is associated with very low overall patient satisfaction. CONCLUSION: The time spent with the physician is a stronger predictor of patient satisfaction than the time spent in the waiting room. These results suggest that shortening patient waiting times at the expense of time spent with the patient to improve patient satisfaction scores would be counter-productive.

OBJECTIVES: To examine how patients, by use of a discrete choice experiment, decide between visiting their general practitioner or community pharmacist for the management of minor ailments. METHODS: Focus groups were convened to identify key attributes of interest and to explore feasible variation in these attributes (levels). A postal DCE questionnaire was administered to adult populations across Wales, UK. The attributes (levels) chosen were: Location of consultation (GP surgery/pharmacy); When seen (immediately/not immediately); Travel time (15 minutes/30 minutes); Length of consultation (5 minutes/10 minutes); Expenses (£2/£4). Each questionnaire included 17 pairwise choices and 109 respondents generated 2006 usable answers. A two-level logistic regression was performed to analyse the data. RESULTS: Significant beta coefficients were evident for all attributes other than location of consultation. The largest increase in utility was with being seen immediately as opposed to not immediately (Beta = 2.176; SE 0.174; p < 0.0001). A 10 minute consultation was preferred to a 5 minute consultation with GPs, however respondents preferred a quick consultation if they visited their community pharmacies. Being able to save £2 and going to their GPs gave an increase in utility, regardless of whether they were seen by their GPs or pharmacists. CONCLUSION: Everything else being equal, respondents preferred to see their GPs as their first port of call, and to be seen quickly with little travel time. There is potential to improve the efficiency of policies aiming to increase the use of community pharmacies in the management of minor ailments. This may be accomplished by reinforcing the benefits of the immediate and local availability of community pharmacies that can offer brief consultations, often at less or the same cost as consulting a general practitioner to receive a prescription medicine.

OBJECTIVES: Pharmaceutical samples are widely used for promotion and marketing, yet little is known about who receives samples or how their use is associated with patient's out-of-pocket prescription costs. We sought to examine the characteristics of patients receiving samples and to describe the association between sample receipt and prescription costs METHODS: We divided the 2002–2003 Medical Expenditure Panel Survey, a nationally representative, panel-design longitudinal study, into a baseline period (the first two interview rounds) and an analysis period (the remaining three rounds). We conducted logistic and generalized linear regression analysis of 5,881 individuals receiving no sample during the analysis period. On multivariate analyses sample receipt was greater among those who were younger and those not on Medicaid. In generalized linear regressions controlling for demographic characteristics and health care utilization, the 180-day out-of-pocket prescription expenditures were $178 (standard error [SE] $3.9) for those never receiving samples. Among those receiving samples, the corresponding out-of-pocket prescription expenditures were $166 (SE $8.9) for periods before sample receipt, $244 (SE $9.2) for periods during sample receipt, and $212 (SE $12.4) for periods following sample receipt. Results were similar when total prescription costs were examined. Analyses stratified by baseline health care utilization and by sample use for acute vs. chronic conditions suggested that “pent-up demand” failed to explain the associations observed. CONCLUSION: Individuals receiving samples have higher prescription expenditures than their counterparts. This finding suggests that sample recipients remain disproportionately burdened by prescription costs even after sample receipt.