OBJECTIVES: Long-term continuous use of HMG-CoA inhibitors (statins) has been shown to be beneficial to patients with coronary artery disease in several large clinical trials. This study demonstrates a promising model to assess the relationship between medication adherence with statins and the risk of adverse event (hospitalization or emergency visit) in a managed care population.

METHODS: Conventional outcomes assessments for medication compliance often encounter the problem of identifying the causal relationship between adherence and outcomes (e.g., adverse event). It is not unusual that medication discontinuation occurs after and possibly due to a hospitalization event. To determine the strength of the relationship between statin adherence and risk of hospitalization, a Cox proportional hazard model was developed with the time-varying variable defined as proportion of days covered by statins (PDC) as of the date of first adverse event. For censored subjects, PDC was chosen as of the end of study period or the date of disenrollment, whichever occurred first. 68,974 adult patients were identified as new statin starters during a 2-year period from June 1998 to June 2000. Other covariates included demographics, payer types, previous drug, medical and biotech products. The average annual expenditure on DTC advertisement from 1997–2001 was calculated for each product. Data were analyzed using chi-square and t-tests.

RESULTS: The inclusion criteria were met by 106 distinct products. The proportion of products advertised in the innovative group was significantly higher than the standard group (p < 0.006). Innovative products are 1.7 times more likely to be advertised directly to the consumer than the standard products. There was no statistical difference in the average annual DTC expenditure per product in each group (p = 0.63). CONCLUSION: Innovative products are more likely to be advertised directly to the consumer which may increase patients’ request for those medications. This information may help decision makers understand potential product demand during the formulary decision making process.

ECONOMIC IMPACT OF PROZAC® PATENT EXPIRATION AND THE 180-DAY GENERIC FLUOXETINE EXCLUSIVITY IN A PUBLICLY-FINANCED PRESCRIPTION PROGRAM

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OBJECTIVE: The purpose of this study was to describe the economic impact of generic fluoxetine entry on trends in utilization and costs of new generation antidepressants (Celexa®, Effexor®, Luvox®, Paxil®, Prozac®, and Zoloft®) within the Texas Medicaid Program. Additionally, diffusion of market share among generic manufacturers following the 180-day marketing exclusivity period was also examined. METHODS: Retrospective prescription claims data from January 2001 through August 2002 were analyzed. Claims were grouped across study agents: 1) Prozac®, 2) fluoxetine, and 3) other (Celexa®, Effexor®, Luvox®, Paxil®, and Zoloft®) antidepressants. Costs were based on payments to pharmacies.

RESULTS: A total of 1,154,659 prescription claims were analyzed. Prior to the introduction of generic fluoxetine, market share for Prozac® was 19.0% (10,754 claims) in July 2001. In August 2002, market share for Prozac® decreased to 2.2% (1,479 claims), of which, 952 claims (64.3%) were for the Prozac® 20mg weekly dose, while market share for “other antidepressants” grew to 86.7% (57,259 claims). Generic fluoxetine market share was 11.0% (7,281 claims) in August 2002. Within the generic fluoxetine market, manufacturers with exclusivity experienced a decrease in market share from 100.0% (7,184 claims) in January 2002 to 63.6% (4,629 claims) in August 2002. The estimated average payment per unit (post-rebate) for Prozac® 20mg capsules prior to its patent expiration (January–July 2001), during the 180-day generic exclusivity period (August 2001–January
Physician Attitude toward Academic Detailing and Other Drug Cost-Containment Strategies in a State Health Insurance Program

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OBJECTIVES: The overall purpose of this study was to determine West Virginia (WV) physicians’ attitude toward cost-containment strategies and generic prescribing, and to assess their level of awareness and receptivity towards academic detailing. METHODS: The top 2000 physicians by prescribing volume in the WV state employees health insurance program were surveyed using a self-administered mail questionnaire. Physician attitudes toward popular pharmaceutical cost-control strategies (formulary, prior-authorization, co-pays, generic and therapeutic substitution, and incentives for formulary adherence), generic prescribing, and the potential of academic detailing for appropriate and cost-effective pharmaceutical use was assessed using Likert-type 7-point scales. Generic prescribing frequency and patient acceptance/inquiry for generic drugs and the preferred format of academic detailing visits were also obtained. RESULTS: A total of 455 (23%) usable responses were obtained after 2 mailings. On a scale of 1 to 7 (highly inappropriate to highly appropriate), generic substitution, increased patient co-pays for branded drugs, and therapeutic substitution had the highest mean appropriateness scores of 5.30 (+1.68), 4.49 (+1.71), and 4.36(+2.01), respectively. All other strategies were considered inappropriate with incentives to physicians for prescribing from formularies considered the most inappropriate. Physicians were neutral to mildly positive toward generic drug prescribing, and reported a mean proportion of 46% generic prescriptions written and a 78% patient acceptance of generic prescriptions when written. Physicians were generally aware of academic detailing and mildly positive about it with 69% of surveyed physicians expressing willingness to meet with academic detailers. A once-a-month frequency of visit and up to 20 minutes per visit was favored by almost half of those physicians interested in academic detailing. CONCLUSIONS: Overall, WV physicians are less supportive of cost-control strategies that impose restrictions on their prescribing and more supportive of strategies that do not impose on their prescribing. Study results indicate that WV physicians are receptive to academic detailing.

Are Sick People Less Responsive to Prescription Benefit Changes?

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OBJECTIVES: To estimate the difference in responsiveness to drug benefit changes between sick and healthy populations under different drug benefit plans. METHODS: Prescription spending in 2001, demographic, co-pays and chronic condition information of 107,710 primary participants between ages 18 to 64 was obtained from Caremark PBM claims system. Existence of chronic conditions identified through pharmacy claims utilization algorithms was used as a proxy for sick people. A 2-part model was used to estimate the prescription spending on copay changes. The first part used a logistic regression to estimate the probability of incurring of any prescription. The second part used an OLS regression on log of total spending for the utilizing participants. RESULTS: Under a 1-Tier copay plan, if the co-pays increase from $5 to $10, the reduction of total spending is 6.4% more for sick people than for healthy people. Under a 2-Tier plan, if the co-pays increase from $5 to $10 for generic and $10 to $15 for brand, the reduction of total spending is 10.2% more for sick people than for healthy people. Under a 3-Tier plan, if the co-pays increase from $5 to $10 for generic, $10 to $15 for brand formulary and $15 to $20 for brand non-formulary, the reduction of total spending is 10.4% more for sick people than for healthy people. CONCLUSIONS: Based on the specific data set, this research shows that sick people are more responsive to drug benefit changes. Since cost-sharing designs are frequently used to contain total drug spending, understanding drug benefit designs for heterogeneous populations is crucial to achieve the optimal balance of sponsor savings and participants’ health.

Diabetes

Impact of Participant Cost-Share on Compliance Rates in Participants with Diabetes

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OBJECTIVE: To retrospectively assess the impact of participant cost-share levels on medication compliance rates