cruel as the profession continues to work toward establishing a sustainable and economically viable role within the dynamic health care system.

**A MODEL TO ESTIMATE INCREASE IN REVENUE FROM IMPLEMENTING MEDICATION ADHERENCE MANAGEMENT SERVICES IN COMMUNITY PHARMACIES**

Banahan III BP, Holmes ER

University of Mississippi, University, MS, USA

OBJECTIVES: Programs to increase medication adherence are receiving increased attention. One incentive for pharmacies to implement such services is the potential increase in revenue. The objective was to estimate changes in revenue a community pharmacy would see three years after implementing a new medication management service (RxSync Service®).

METHODS: A Markov economic model was developed using Excel. Model inputs are average week day/weekend patient volumes, current average medication possession ratio (MPR) for chronic medication prescriptions, expected MPR for patients enrolled in the service, goals for enrolling existing and new patients into the service, current gross prescription sales, and net profit on prescription sales. A three year time frame was used to estimate yearly increases in net revenue and month patient enrollment and increases in prescription volume. Model assumptions are based on data collected from five pharmacies participating in a project with the RxSync Service®.

RESULTS: A conservative scenario (70% of current target patients in 18 months) resulted in a peak of 414 additional prescriptions/month at month 21 and net revenue increases of $4,896, $9,364, and $9,531. Adding a goal of 200 new patients, starting at month 6 and finishing 12 months later resulted in a peak of 1,208 new prescriptions/month at month 21 and net revenue increases of $8,438, $26,386, and $27,806. CONCLUSIONS: The model demonstrated that an effective medication adherence management program can increase net revenue for a community pharmacy. The increases will be relatively small and the first year of implementation unless a fairly aggressive recruitment strategy is used. If economic factors are import when starting the service, recruitment of new patients should be a high priority in the implementation strategy.

**USEFULNESS OF COST PER DEFINED DAILY DOSE (DDD) TO IDENTIFY PROBLEMATIC DRUGS IN MEDIUM- AND HIGH-LEVEL COMPLEXITY HOSPITALS FROM COLOMBIA**

Rueda Rodriguez IA, García Vega OA

Universidad Nacional de Colombia, Bogota, Colombia

OBJECTIVES: Evaluate the usefulness of cost per DDD to identify problematic drugs in medium- and high-level complexity hospitals from Colombia.

METHODS: This was a cross-sectional study where drug prescriptions were evaluated in 331 second- and third-level complexity hospitals from 27 Colombian departments during 2006–2007.

RESULTS: A total of 38,843 prescriptions for 3,663 patients were analyzed. 74.7% of them affiliated to contributory health care system. The median consumption was of 8, 39 daily defined doses (DDD)/100 patients. Filgastrim and Interferon represent almost 48% of DDDS of D90%. The overall per cost per DDD was US$3.9, being this cost lower in drugs of D90% than drug out of this list (US$1.79 vs US$0.24, p = 0.03). Also the cost per DDD was higher in patients affiliated to contributory health care system than patients affiliated to public health care system (US$ 3.01 vs. US$2.09, p = 0.03).

CONCLUSIONS: In this population, antineoplastic and immunomodulating agents (Code L, ATC Classification System), and drugs of musculoskeletal system (Code M, ATC Classification System) were the drugs with higher cost per DDD (US$186 and US$8.9, respectively).

**EXCESS HOSPITAL COSTS ATTRIBUTABLE TO MEDICATION ERRORS IN HOSPITALIZED PATIENTS**

Sub DC*, Barone J†, Flynn L*, Choi IS†, Lee DH†

*Rutgers University School of Pharmacy, Piscataway, NJ, USA; University of Maryland School of Nursing, Baltimore, MD, USA; †Yonsei Women's Univ College of Medicine, Seoul, South Korea

OBJECTIVES: To calculate the incidence of medication errors (MEs), examine types and causes of MEs, and estimate the excess hospital costs attributable to MEs in hospitalized patients.

METHODS: This study was conducted in a large tertiary hospital in Seoul, Korea, and was a retrospective cohort study. MEs were classified as contributory or non-contributory. Excess hospital costs were estimated by multiplying the mean hospital costs and the mean number of days in which MEs were diagnosed. Using multiple regression analysis, the coefficients of the study variables from all patients were derived to calculate the equation of excess hospital costs attributable to MEs.

RESULTS: A total of 470 MEs out of 57,554 patients were identified. The overall rate for MEs was 0.8 errors per 100 admissions, and 1.7 errors per 1000 patient-hospitalized days. METHODS: The study population included 17-bed community and 417-bed academic hospitals) from January 2003-December 2006. ME data was collected from hospital-specific voluntary reports for patients who experienced MEs.

CONCLUSIONS: Most errors were wrong time (19.8%), wrong medication (18.1%), and wrong dose (17.0%). About 41% of MEs involved antibiotics, opiates, insulin, and electrolytes and fluid. It patients who experienced MEs during hospitalization were not to have these MEs, their hospital costs would be reduced by $6,973 (95%CI US$6,138–7,808).

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CONCLUSIONS: This study demonstrated the importance of reducing medication errors because of its substantial economic burden to our society. Additional studies are needed to assess the cost effectiveness of various strategies in reducing MEs.

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