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### PHP26

### INAPPROPRIATE PRESCRIPTION DRUG USE AND REDUCED HEALTH STATUS FOR THE ELDERLY

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OBJECTIVE: Inappropriate prescribing is a major problem for the elderly. This research is to fill a gap in literature exploring the impact of inappropriate medication use on patient health status. METHODS: Based on the 1996 national Medical Expenditure Panel Survey (MEPS), inappropriate prescription drug use were identified using Beers criteria. Ordered probit models were estimated to quantify the impact of inappropriate drug use on patient self-perceived health status. To minimize the impact of endogeneity problem due to dynamic regression, a comprehensive set of prior health condition variables was included to capture the need conditions for medical care. Complex survey sample design was adjusted in modeling. RESULTS: As the modeling coefficient reaches the robustness, it provides strong evidence indicating a significant adverse impact of inappropriate prescription drug use on patient self-perceived health status (p < 0.01). After conducting the simulation, inappropriate drug was found to increase the elderly with poor and fair health status by 2.1 and 2.2 percentage points respectively, compared to those with appropriate prescription use. Meanwhile, the same effect decreases the elderly with very-good and excellent health status by 1.9 and 2.8 percentage points respectively. CONCLUSIONS: This study obtained strong evidence indicating that inappropriate drug use can yield sizable adverse impact on patient health status in the elderly. The result also helps to validate the Beers criteria as valid proxy indicators of poor prescribing practices leading to deterioration of health status. Therefore, systematic policy actions are warranted to reduce system medical errors in general and inappropriate prescribing in particular.

### PHP27

# HEALTH RELATED QUALITY OF LIFE AMONG PRESCRIPTION DRUG USERS IN SWEDEN: AN EPIDEMIOLOGICAL SURVEY

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OBJECTIVE: The aim was to study health related quality of life (HRQoL) among users of prescription drugs in a population. METHODS: Cross-sectional survey, 20–84 years, in the County of Uppland, Sweden. Five thousand four hundred four (68%) answered the questionnaire. SF-36 was used to measure HRQoL. Self-report with a recall period of two weeks was used to estimate use of prescription drugs. Linear regression analysis was employed for the multivariate analyses controlling for age, sex and co-medication. Non-users were used as the comparison

group. RESULTS: A total of 9.7% of the population used drugs for hypertension, 9.5% analgesics, 6.6% hypnotics and/or anxiolytics, 4.2% drugs for asthma, 3.6% drugs for cardiac problems, 2.4% drugs for diabetes, 2.4% antidepressants, and 2.2% used drugs for angina. As expected, users of different drugs had very different patterns of decreased HRQoL. In the Physical Function (PF) dimension users of drugs for angina had the lowest score (-14.2) followed by users of analgesics (-12.3) and users of drugs for diabetes (-7.2). Users of analgesics (21.6) and users of drugs for angina (-17.8) had the lowest scores on Role Physical (RP). Users of antidepressants (-19.4), and users of hypnotics and/or anxiolytics (-17.6) scored lowest in the Mental Health (MH) dimension. The lowest Role Emotional (RE) scores were found among users of antidepressants (-31.3), users of hypnotics and/or anxiolytics (-15.3) and users of drugs for angina (-9.3). The lowest Social Function (SF) scores were found among users of antidepressants (-16.1), and users of hypnotics and/or anxiolytics (-14.5). CONCLUSIONS: Users of prescription drugs have a reduced HRQoL, the pattern of decrease as compared to the general population varies by type of disease and drug use.

#### PHP28

## HEALTH INVOLVEMENT: RELATIONSHIP WITH HEALTH STATUS AND PATIENT SATISFACTION

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**OBJECTIVE:** The purpose of this study was to evaluate the relationships between health involvement, health status, and patient satisfaction with health plan. METHODS: A cross sectional study was conducted by administering surveys to patients filling prescription at 10 Kelsey Seybold pharmacies located around Houston. The surveys distributed were proportional to the prescription volume of the pharmacies. Domains of consumer health involvement were measured using an eight-item, previously validated health motivation scale as well as fouritems that measured involvement in health and health plans using a 5-point strongly agree—strong disagree scale. Health status was measured using the SF-12 scale and patient satisfaction with health plan was measured using an 8-item, 5-point Likert scale. Demographic data such as age, gender, education, marital status, race, and income were also obtained. Data were coded and analyzed using SAS statistical package at a set priori significance level of 0.05. Descriptive and correlation analysis were conducted. RESULTS: Analyses was carried out on 326 usable surveys. Mean age of respondents was 45.28 ± 13.35 years (range 21–93). Majority of the respondents were female (71%) and enrolled in a health plan (94%). Respondents in this study had high health motivation scores (3.95  $\pm$  0.67). They were highly involved in activities to improve their health  $(4.02 \pm 0.75)$  and in selecting their health plan (3.86  $\pm$  1.14). Overall respondents