

a significantly better side-effect profile. **METHOD:** A longitudinal study was conducted using drug claims from PCS Health Systems. The study cohort consists of 4602 “naïve tolterodine users”, 7291 “naïve oxybutynin users” and 2127 “naïve flavoxate users.” Survival analysis was used to estimate the “persistence rate”—defined as the proportion of patients who are still on a drug treatment during or after a defined period of continuous treatment for the drug. A Cox-regression model was used to assess the net effect of using tolterodine or oxybutynin on the persistence of drug therapy controlling for differences in the patients’ demographics, comorbid conditions, and other factors. **RESULTS:** The persistence on tolterodine was 30% higher than that on oxybutynin on continuous treatment periods of 31–60 days, and 90% higher for 301–360 days of therapy. The persistence on tolterodine was 430% higher than that on flavoxate for treatment periods of 30–60 days and 340% higher for 301–360 days of therapy. The average length of continuous treatment for naïve tolterodine users was the longest of the three drugs: 143(3.9) days compared to 91(2.6) days for oxybutynin and 41(4.6) days for flavoxate. The adjusted odds-ratio of terminating drug treatment for tolterodine vs. oxybutynin users was 0.66 ( $p > 0.001$ ). **CONCLUSIONS:** Patients using tolterodine were significantly more likely to continue their treatment than those choosing other OAB drugs. The better persistence for tolterodine users should result in longer symptom relief for patients, particularly for those who are in need of long-term treatment but are distressed by side effects.

**PUR4****ANALYSIS OF COMORBIDITY IN OVERACTIVE BLADDER AND URINARY INCONTINENCE IN A MANAGED CARE ORGANIZATION**

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**OBJECTIVE:** The primary objectives of this study are to examine the costs of overactive bladder and urinary incontinence (OAB/UI) and evaluate for the presence of depression and falls and fractures as comorbid conditions from a managed care perspective. **METHOD:** Retrospective computerized claims records from a managed care organization were analyzed. Patients were included if they had an ICD-9 code consistent with OAB or UI, were under treatment and were continuously eligible between 1/1/99 and 12/31/99 ( $N = 445$ ). Randomly sampled control patients from the general membership were matched on age and gender with the OAB/UI group at a ratio of 5:1 ( $N = 2,220$ ). Diagnoses of depression and of falls, fractures and contusions were collected and a Charlson comorbidity index was developed for all study patients. Depression-related costs and falls & fracture-related costs included those directly related to treatment. **RESULTS:** Seventeen (0.77%) of the control patients had a diagnosis of depression compared to 2.02% of the OAB/UI patients ( $P < 0.0001$ ). Of the OAB/UI patients, 13.93%

were diagnosed with a fall or fracture compared to 8.11% of the control patients ( $P < 0.0001$ ). The mean Charlson score of the OAB/UI group was 0.51 (SD 1.10) compared to 0.37 (SD 1.00) for the control group ( $P < 0.01$ ). The mean cost of treating depression was \$33 (SD \$605) for the control group and \$42 (SD \$138) for the OAB/UI group ( $P < 0.0001$ ). The average cost of treating falls & fractures was \$154 (SD \$1,922) for the control group and \$434 (SD \$4,946) for the OAB/UI group ( $P < 0.0001$ ). **CONCLUSION:** Compared to the general population, patients with a diagnosis of OAB/UI are significantly more likely to experience a fall or fracture or experience depression. They also tend to have a significantly higher burden of comorbidity. The average cost of fall & fracture treatment and treatment of depression is significantly higher among OAB/UI patients.

**PUR5****THE IMPACT OF PHARMACOTHERAPY ON OVERACTIVE BLADDER SYMPTOM IMPROVEMENT AND RESOURCE UTILIZATION**Pashos CL<sup>1</sup>, Grossman M<sup>1</sup>, Bull S<sup>2</sup><sup>1</sup>Abt Associates Clinical Trials, Cambridge, MA, USA; <sup>2</sup>Alza Corporation, Mountain View, CA, USA

**OBJECTIVES:** To examine the effects of drug treatment on overactive bladder (OAB) symptom improvement and resource utilization. **METHODS:** We conducted an observational study of 217 OAB patients enrolled by 31 physicians nationwide. One hundred twenty-two patients have been tracked through 3 months to determine symptom improvement, change(s) in treatment, and resource utilization. The impact of medication on OAB symptom improvement was modeled using stepwise logistic regression adjusting for patient age, sex, symptom duration, symptom severity, incontinence, frequency of leakage accidents, and frequency of urinations. **RESULTS:** Participants averaged 60.7 years old (S.D. = 15.7), 85.2% were female, and the mean duration of OAB symptoms was 8.1 years. On average, patients experienced 11.0 urinations per day (S.D. = 4.7) and 2.2 accidents per day (S.D. = 3.4). Treatment with medication increased the odds of symptom improvement by four-fold (odds ratio (O.R.) = 4.3, 95% confidence interval (CI) 1.8–9.9). Patients with incontinence were significantly more likely to report improvement in symptoms compared with patients with urinary frequency alone (O.R. = 3.2, 95%CI 1.2–8.4). Nineteen of 72 (26%) patients not started on medication at baseline began medication within the first 3 months, consuming an average of 1.16 office visits per patient. In contrast, 11 of 50 patients (22%) who were started on medication at baseline discontinued within the first 3 months, consuming an average of 0.64 office visits per patient. Patients staying on medication (39/50, 78%) consumed on average the fewest office visits per patient (0.15), while patients who managed symptoms without medication (53/72, 73%) consumed an average of 0.26 office visits. **CONCLUSIONS:** Pharmacotherapy signifi-