determine adherence to treatment guidelines. METHODS: In a retrospective database study, continuously enrolled patients aged 18 years and older with COPD (COPD only or COPD+asthma), who initiated therapy during year 2002 with either an inhaled corticosteroid or an anticholinergic (first fill date identified as index date) were included in the analyses. The severity of identified subjects was determined using two METHODS: respiratory disease-related health care utilization; and charlson comorbid score during the one-year baseline period. Presence of comorbid conditions was also determined. RESULTS: Of the 8392 patients identified as having COPD, 467 (5.56%) initiated an inhaled corticosteroid and 495 (5.90%) initiated an anticholinergic. Using respiratory related healthcare utilization in the baseline period as a proxy for disease severity, 82% of inhaled corticosteroid users were low utilizers, 14% were moderate utilizers and 4% were high utilizers whereas 53% of anticholinergic users were low utilizers, 14% were moderate utilizers and 16% were high utilizers. At baseline, mean Charlson comorbidity score was significantly lower among inhaled corticosteroid users (0.88) as compared to anticholinergic users (1.32). Also, at baseline anticholinergic users had a significantly higher percentage of patients with comorbid diagnosis of congestive heart failure, atherosclerosis, coronary heart disease, hypertension, mental illness and other lung disease. Results were also consistent in the COPD only group. All differences were significant at p < 0.05. CONCLUSIONS: Patients initiating an inhaled corticosteroid appeared to be less severe as indicated by lower health care utilization, lower Charlson comorbid score and fewer comorbid conditions than those patients initiated on anticholinergics.

URINARY/KIDNEY—Clinical Outcomes Studies

PUK1

PREVALENCE OF NEUROGENIC BLADDER IN PATIENTS WITH VARIOUS NEUROLOGIC DISORDERS IN THE UNITED STATES
Shenolkar R, Balkrishnan R
The Ohio State University College of Pharmacy, Columbus, OH, USA

OBJECTIVE: Neurogenic bladder is a condition that involves bladder dysfunction caused due to damage to any part of the nervous system. Patients with neurogenic bladder encounter difficulties such as bladder overactivity, urinary incontinence, and urge incontinence. The objective of this study was to assess the prevalence of neurogenic bladder in patients with different neurological conditions. METHODS: A thorough literature search was performed using MEDLINE and other databases such as HAPI, OVID, and ScienceDirect. Information related to neurogenic bladder, specifically estimates of proportion of patients suffering from neurogenic bladder was obtained from this search. Articles that were published between the years 1995–2004 were included. Percentages obtained from the literature were combined with prevalence data of various neurologic disorders available on National Center for Health Statistics website to obtain estimated number of patients with different neurologic conditions suffering from neurogenic bladder. RESULTS: Neurogenic bladder is found to be most prevalent in patients with Stroke, Parkinson’s disease, Traumatic Brain injury, Dementia, Spinal Cord injury, Multiple Sclerosis, Spina Bifida and paralysis. It is found to be prevalent in more than half of patients suffering from Stroke which is estimated to be more than two million. Its prevalence in Parkinson’s patients varies widely between 0.2–0.7 million (27–70%). Occurrence of urinary incontinence due to neurogenic bladder in patients with Dementia was 11–90%, an estimate of approximately 0.2–1.5 million, depending on the setting in which the patients are treated. Bladder overactivity has been detected in 50–90% of patients with Multiple Sclerosis and in 95% of patients with Spina Bifida, together accounting for an estimated half million patients. CONCLUSIONS: There is a high prevalence of bladder dysfunction in patients suffering with nervous system disorder in the US. Further research should focus on obtaining more precise estimates using a national level data to determine trends of neurogenic bladder.

PUK2

ASSOCIATION BETWEEN IN-HOSPITAL FALLS, COMORBIDITIES, AND DRUG USE IN ADULT CHRONIC KIDNEY DISEASE PATIENTS: A CASE-CONTROL STUDY
Angalakuditi M, Coley K
University of Pittsburgh, Pittsburgh, PA, USA

OBJECTIVES: To evaluate the association between comorbidities and drug use with the risk of in-hospital fall in adult Chronic Kidney Disease (CKD) patients. METHODS: A retrospective case-control study was conducted at a University medical center between January 1, 1998 and June 30, 2003. To be included as a case, patients had to experience an in-hospital fall, ≥18 years of age and, hospitalized for ≥24 hours. All patients had CKD defined as a glomerular filtration rate less than 60 ml/min on admission. For every case, a matched control was identified in a 1:2 ratio. Cases and controls were matched on CKD, age and gender. Comorbidities were identified using ICD-9 CM diagnosis codes. Drug utilization was identified two days before the fall date for cases and the reference fall date for controls. Statistics performed were T-tests, chi-square, and conditional logistic regression using “fall” as the dependent variable and race, comorbidities and drug groups as covariates. RESULTS: There were 635 fall cases that met study criteria. The mean age was 68 ± 15 years, 54% were female, and 82% were Caucasian. Cases were more likely to have congestive heart failure (33% vs. 27%), diabetes (39% vs. 32%), dementia (6% vs. 2%) and pneumonia (14% vs. 8%) and be receiving antidepressants (29% vs 19%), antipsychotics (16% vs 13%) and anticonvulsants (15% vs 10%). Compared to controls, cases have multiple comorbidities (54% vs 43%, p < 0.001) and received multiple drug groups (48% vs 40%, p < 0.002) prior to the fall. Regression analysis showed that CKD patients with dementia (OR 2.4, p = 0.001) and those receiving antidepressants (OR 1.5, p = 0.001) and anticonvulsants (OR 1.5, p = 0.008) were more likely to experience an in-hospital fall. CONCLUSION: The largest health status risk factor for falling in CKD patients was dementia. Drugs associated with falling were antidepressants and anticonvulsants.

URINARY/KIDNEY—Cost Studies

PUK3

ECONOMIC IMPACT OF PHARMACOTHERAPY VERSUS NON-PHARMACOLOGIC MANAGEMENT AMONG COMMERCIALLY-INSURED PERSONS ≥65 YEARS OF AGE WITH OVERACTIVE BLADDER
Joyce AT, Jamadirova Z, Trogio J, Foltz Boklage S, Girase P
1PharMetrics, a Unit of IMS, Watertown, MA, USA, 2Pfizer, Inc, New York, NY, USA, 3PharMetrics, A Unit of IMS, Fort Washington, PA, USA

OBJECTIVE: To examine the economic impact of pharmacotherapy (PT) versus non-pharmacologic management (NPM) among elderly patients with overactive bladder (OAB). METHODS: Data were obtained from the PharMetrics Patient-Centric Database on continuously benefit-eligible patients ≥65 years of age diagnosed with OAB between January 2002 and
ELEVATED INTACT PARATHYROID HORMONE LEVELS AND HEALTH CARE COSTS AND UTILIZATION: RETROSPECTIVE COHORT OF PATIENTS WITH CHRONIC KIDNEY DISEASE

Johnson ES1, Smith DH1, Thorp ML2, Yang Y3, Neil N4

1Center for Health Research, Kaiser Permanente Northwest, Portland, OR, USA; 2Kaiser Permanente Northwest, Portland, OR, USA; 3Kaiser Permanente Permanente Center for Health Research, Portland, OR, USA; 4Ovation Research Group, Highland Park, IL, USA

OBJECTIVES: The National Kidney Foundation’s Kidney Disease Outcomes Quality Initiative Guidelines (K/DOQI) recommend monitoring intact parathyroid hormone levels (iPTH) among patients with chronic kidney disease (CKD) whose GFR falls between 15 and 59 ml/min/1.73 m². Target ranges for iPTH levels in CKD are based on expert opinion: patients in stage 3 should not exceed 70 pg/mL; patients in stage 4 should not exceed 110 pg/mL. We investigated the shape of the relation between iPTH levels and health care costs to offer evidence.

METHODS: We assembled a cohort of 830 HMO members aged 60 to 89% 41st to 60th (100–144); +1%; –12% to +18% 41st to 60th (100–144); +50%; +1%; –47% to +30%. Our estimates controlled for age, sex, most recent estimated GFR (MDRD), annual cost before the index iPTH value, and mortality. CONCLUSIONS: iPTH levels predict cost, but not in the expected dose-response relation; future studies should explore why the rates of utilization were lower among patients with the highest levels of iPTH.

URINARY/KIDNEY—Health Care Use & Policy Studies

PUK4

EVALUATING THE OUTCOME AND COST ASSOCIATED WITH A TAMSULOSIN REAUTHORIZATION PROGRAM

Binkley JR, Hendley YG, Christopher MLD, Stull MA, Morreale AP, Plowman BK, Boggie DT

Veteran Affairs San Diego Healthcare System (VASDHS), San Diego, CA, USA

OBJECTIVE: A reauthorization program was implemented to apply updated VA guidelines to identify patients that may be maintained on less costly, equally efficacious alternatives for treatment of benign prostatic hypertrophy. Study objective is to assess patient safety, effectiveness and costs incurred to direct formulary policy post implementation. METHODS: This retrospective outcome and utilization analysis extracted patient, prescription, and resource data specific to VASDHS. Eligible patients required a current prescription for tamsulosin and a reauthorization request submitted between March and July 2005. Denied requests underwent a retrospective chart review of the 90-days following the submission while 90-day drug and resource cost estimates were applied to those requests approved. Outcomes of denials were reviewed for safety and effectiveness.