OBJECTIVES: Analyze the nature of the relationship between tamsulosin dose, hematocrit and mortality and determine if there are any implications for establishing hematocrit targets.

METHODS: Hematocrit, tamsulosin dose, and other factors were summarized during a 6-month period for incident ESRD patients in the United States Renal Data System data. Mortality rates are summarized over a 1-year follow-up. A Cox regression model was used to evaluate the association between hematocrit, tamsulosin dose, and mortality controlling for interaction between hematocrit and tamsulosin dose. RESULTS: Overall unadjusted mortality rate was 251 per thousand patients. Analysis showed hematocrit was inversely associated with tamsulosin dose. For the same observed hematocrit levels, there were widely varying treatment-related survival outcomes. In general, higher hematocrit level is associated with lower mortality while higher tamsulosin dose is associated with higher mortality. Compared to patients with an observed study hematocrit of 33 to 36 percent and tamsulosin dose in the first dose quartile, the highest relative risk of death was observed among patients with hematocrit values < 30 percent and tamsulosin dose in the fourth dose quartile (RR = 2.14 and 95% CI = 1.88 to 2.42). CONCLUSIONS: Failure to control for tamsulosin dosage will lead to misinterpretation of the correlation between observed hematocrit and survival. Studies that reported an association between hematocrit levels and survival did not adequately control for tamsulosin dosage and the validity of the inferred survival benefit from increasing hematocrits is questionable. Previously published claims of a survival benefit related to higher hematocrit level should not be used to justify hematocrit targets until further studies are conducted to determine the causal relationship.

CONCLUSIONS: Successful management of OAB requires optimal symptom control while avoiding side effects. Key side effects of OAB treatments include anticholinergic effects, dry mouth, constipation, urinary retention, and sexual dysfunction.

RESULTS:
- For patients with a double dose of tamsulosin, were $1.98 vs. $1.58 per patient per day for tamsulosin and alfuzosin, respectively. This difference was due to the cost of tamsulosin. Alfuzosin was $1.99 vs. $1.86 for tamsulosin and $1.58 per patient per year (PYP) for tamsulosin ($722.70, alfuzosin $576.70). Costs associated with tamsulosin-related AEs were estimated to be $4.59 PYP, whereas, alfuzosin-related AEs were $2.25 PYP ($2.34 PYP difference). Therefore, in considering the price and DACION differential ($146.00) together with the differential in costs of treating AEs ($2.34), alfuzosin saved $148.34 PYP, a 20% difference. CONCLUSIONS: Alfuzosin provides cost savings over tamsulosin in the treatment of patients with symptomatic BPH. Savings are realized primarily on the basis of total drug acquisition costs, followed by lower costs associated with treating side effects of therapy. Alfuzosin is a less expensive alternative to tamsulosin as a first-line clinically uroselective drug therapy in the management of men with BPH.

CONCLUSIONS: The age related prevalence of Overactive Bladder in developed economies is estimated at 17% and is comparable with common diseases including depression, osteoporosis, and COPD. The burden of OAB is likely to grow in the future.

OBJECTIVES: This analysis addresses the cost-effectiveness of the extended release formulation of oxybutynin (Ditropan XL) relative to long-acting tolterodine (Deltro LA) for the treatment of overactive bladder in the US. METHODS: A previously validated state-transition model was used to compare the health economic outcomes over the course of one year using efficacy data from OPERA, a 3-month randomized, double-blind trial comparing Ditropan XL 10mg once daily to Deltro LA 4mg once daily, together with data from the literature to project outcomes beyond trial time. Five states were defined based on the severity of symptoms (number of incontinent episodes per week). Severity-specific costs (in 2003 US dollars) of pharmaceuticals, doctor visits, and pad or protection usage for incontinence in the US were used. RESULTS: Ditropan XL is expected to lead to superior outcomes and lower overall costs compared to Deltro LA. After one year, 4.6 more patients per 100 treated attain complete continence and an additional 2.4 more will have fewer than 7 incontinent episodes per week. Patients on Ditropan XL have almost 11 additional incontinence free days over the course of the year. Costs are expected to be an average of $43 lower per patient per year. Ditropan XL maintains its advantage over wide ranges of inputs, and outcomes are similar if analyses are limited to only 3 months, the duration of the OPERA trial. CONCLUSIONS: These analyses suggest that Ditropan XL provides better health outcomes and lower costs compared to Deltro LA over a 1-year period.

OBJECTIVES: The age related prevalence of Overactive Bladder in developed economies is estimated at 17% and is comparable with common diseases including depression, osteoporosis, and COPD. The burden of OAB is likely to grow in the future.
objective of this research is to estimate current and future burden of this condition using the UK as an example. METHODS: Age and sex related prevalence rates have been applied to current and forecast population data to estimate future prevalence. A published assessment of patient costs is used to derive an estimate of economic burden. RESULTS: Our analysis indicates that 4.7 million people are estimated to have OAB in the UK. Although few males are treated for this disease, male prevalence is estimated to account for up to 45% of the total (treated and untreated) OAB population. UK government population forecasts for 2020 imply a 27% growth in OAB prevalence with male prevalence increasing faster than that of females. Using published data for average annual patient costs for OAB patients, the current cost burden of OAB in the UK is estimated to exceed £800m per annum. CONCLUSIONS: OAB is a highly prevalent condition imposing a substantial economic burden, which will increase with demographic shifts towards an aging population. If the prevalence of OAB risk factors including diabetes, smoking, and UTIs increases over time, then it is reasonable to expect that age related OAB prevalence will increase with time. Our forecast prevalence may therefore underestimate future burden because our analysis assumes that age related prevalence is constant over time. Assuming constant costs per patient, the economic burden will increase in line with our prevalence forecasts. Given that many sufferers, especially males, do not currently seek treatment, the future cost burden may also have been underestimated.

PUK6

THE RELATIONSHIP BETWEEN COST OF CARE AND COMORBIDITY IN CHRONIC KIDNEY DISEASE

Smith DH, Nichols G, Gullion C, Keith D
Kaiser Permanente Center for Health Research, Portland, OR, USA; McGill University, Montreal, Quebec, Canada

OBJECTIVES: Previous analyses have shown that the cost of managing chronic kidney disease (CKD) increases with worsening disease. In this study, we were interested in the relationship between cost of care, CKD and comorbidities (proteinuria, coronary artery disease, congestive heart failure (CHF), diabetes mellitus, hypertension, anemia, and hyperlipidemia). METHODS: Cases were >17 years of age, and had a GFR (estimated by MDRD) greater than 15 ml/min/1.73m2 and less than 90 ml/min/1.73m2 (the index GFR), followed by a second GFR below 90 ml/min/1.73m2 at the first creatinine measurement that occurred at least 90 days later; controls were matched on age and gender. Four disease categories were established: Controls; 60–89 (GFR 2); 30–59 (GFR 3); and 15–29 (GFR 4). Subjects were followed for 1 year and costs were annualized and weighted by months of observation. Linear regression was used to predict costs as a function of disease category, controlling for comorbidities. RESULTS: We found that patients with early and mild chronic kidney disease (GFR 30–89) consume approximately $2000 more per year in medical care than their age- and sex-matched control patients without recognized kidney disease after adjusting for comorbid conditions, while those with severe disease (GFR 15–29) consume more than twice that amount. Of the comorbid conditions that we evaluated, anemia, congestive heart failure, and proteinuria were among the strongest independent predictors of total medical costs. These conditions also modified the total cost for each stage of chronic kidney disease. CONCLUSION: Patients with CKD have a greater total cost of care than age and gender matched controls, even after controlling for CKD-related comorbidities. Combined with increasing incidence of kidney disease, these data strongly argue the need for better understanding of cost-effective treatment programs in CKD.

PUK7

A COST EVALUATION OF CYCLOPHOSPHAMIDE PLUS PREDNISONE VERSUS AZATHIOPRINE PLUS PREDNISONE FOR TREATMENT OF LUPUS NEPHRITIS

Telfair T
University of Florida, Gainesville, FL, USA

OBJECTIVE: The best therapeutic approach to treating lupus nephritis (LN) remains contentious; therefore different therapeutic approaches have been embraced over the years. The purpose of this pharmacoeconomic decision analysis is to compare the use of intermittent intravenous cyclophosphamide plus prednisone versus oral azathioprine plus prednisone for the treatment of LN and to determine which regimen is more beneficial in terms of cost. METHODS: The third party payer perspective was used to estimate the costs of treating LN, after deciding to prescribe either regimen. Costs were obtained from various sources including primary literature and clinical trials. Analyses were based on actual costs for treatment of LN and $59,259 and most sensitive to the cost and disutility associated with dialysis. CONCLUSIONS: Sirolimus is associated with greater SC reduction than CsA and is thereby expected to lead to higher rates of graft and patient survival. It is estimated that with CsA withdrawal, sirolimus will reduce lifetime health care costs, increase quality-adjusted survival, and is potentially cost-effective for recently transplanted patients.