incontinence, total incontinence, and micunmictions. Using Z-scores, the percentage of effectively treated patients was calculated for both fesoterodine and generic oxybutynin ER. Costs included a physician visit for patients failing treatment and the average wholesale price of each medication in 2009 US dollars. Data and costs associated with each treatment arm were switched to TreeAge Pro 2008 to obtain the costs for each arm of the simulations. RESULTS: Overall cost-effectiveness ratios obtained were $375.27 ($297.95/0.793) per effectively treated patient with oxybutynin ER compared to $461.67 ($435.01/0.768) per effectively treated patient with fesoterodine. Due to the greater effect and lower cost of oxybutynin ER, an incremental cost-effectiveness ratio was not necessary. Sensitivity analyses revealed the results to be most sensitive to changes in the probability of oxybutynin ER resulting in an effectively treated patient. CONCLUSIONS: Based on this decision model, oxybutynin ER is the dominant treatment. Third-party payers may want to consider making oxybutynin ER a preferred option for their formularies, rather than fesoterodine.

**Puk16**

**COST-EFFECTIVENESS ANALYSIS IN TREATING OVERACTIVE BLADDER WITH URGE INCONTINENCE IN WOMEN: A COMPARISON BETWEEN OXYBUTYNIN AND TOLTERODINE WITH EXPLORATORY ANALYSIS OF FESOTERODINE**

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OBJECTIVES: Overactive bladder (OAB) disease with urinary incontinence is a prevalent disorder among millions of women reaping both high burdens in treatment costs and in health-related quality of life. Oxybutynin ER and tolterodine ER are two anticholinergic therapies that have demonstrated efficacy, but have significant adverse event profiles contributing to long-term discontinuation. No current cost-effectiveness analysis has compared these two therapies to the recent release of an additional anticholinergic, fesoterodine. With three drugs and numerous possible drug regimens involving switching between medications, there exists interest in a cost-effectiveness analysis of the costs and QALYs for OAB treatment. The objective of this study was to conduct CE analysis using a backwards induction model to compare costs and quality-adjusted life years (QALYs) for the following drug regimens: oxybutynin ER, tolterodine ER, fesoterodine, oxybutynin switch tolterodine, tolterodine switch oxybutynin, and fesoterodine switch tolterodine. METHODS: The CE model costs were derived using a societal perspective. The analysis was conducted in women with OAB over the age of 45 years old experiencing urinary incontinence and used valued literature sources of clinical, cost and compliance data. RESULTS: Based on the model inputs, the ICER comparing fesoterodine to tolterodine is $65,880/QALY indicating that at the current branded price and base case data on clinical effectiveness and compliance, fesoterodine is the most cost-effective treatment. Sensitivity and threshold analysis indicate that these results are sensitive to changes in the following inputs: utility values for adverse events and medication discontinuation rates. With changes in these values of 15% and 25% respectively, tolterodine ER is the most cost-effective treatment. CONCLUSIONS: Drug treatment for OAB with urinary incontinence in this population with fesoterodine is most cost-effective when compared to other anticholinergics and switching regimens. Limitations of this study include data on compliance and utility values, which the model is sensitive to.

**Puk17**

**THE VALUE OF HYPERTENSION CONTROL TO CHRONIC KIDNEY DISEASE PREVENTION**

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OBJECTIVES: We assessed the potential health and economic benefits of reducing the main chronic kidney disease risk factor—hypertension. METHODS: A chronic kidney disease microsimulation model tracked a nationally representative cohort to project their chronic kidney disease outcomes over thirty years in a hypothetic scenario that hypertension could be effectively reduced among the cohort. RESULTS: An effective hypertension control saved both cost and lives. Relative to status quo, the gain in quality adjusted life years from the improved hypertension adherence would be 1.28 QALYs within 30 years. The total medical cost saving was estimated to be $789 per capita, largely due to the substantial savings from the downstream spending on end stage renal disease. A total of 224 thousand cases of ESRD, 368 thousand cases of renal transplant and 248 thousand cardiovascular events could be avoided due to the better hypertension control. CONCLUSIONS: Effective hypertension control reduced the incidence of chronic kidney disease and chronic kidney disease mortality. The strategy both improves health outcomes and saves money. More public health efforts should be directed to improve the hypertension awareness and control as one effective chronic kidney disease prevention strategy.

**Puk18**

**RENAL TRANSPLANTATION VS HEMODIALYSIS-COST EFFECTIVENESS ANALYSIS**

**Puk19**

**ECONOMIC EVALUATION OF THE TREATMENT OF BENIGN PROSTATIC HYPERPLASIA IN COLOMBIA**


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OBJECTIVES: Benign prostatic hyperplasia has a high prevalence and represents an important burden on the quality of life of the affected patients. New medical interventions have been added to the more traditional surgical approach. This Markov cost-utility and cost-effectiveness model, adjusted to the Colombian health care environment, presents the decision to treat a hypothetical 60-year-old patient either with surgery (transurethral resection or TUR) or with either alpha blockers (tamsulosin), 5 alpha reductase inhibitors (SARI) or combined therapy (CT). METHODS: We used a three party payer perspective, as well as a 5-year timeframe. Effectiveness data were taken from international clinical trials, while adverse outcome data were from the AUA (American Urological Association) practice guidelines. All costs were local, including Colombian Social Security Institute prices as well as real costs from a local private clinic. Utilities and disutilities were measured in QALY, obtained from Tufts CEA Registry, and discussed with local experts and patient panels (for an average of 0.6375 (QALY for PD and 0.5950 for HD)). RESULTS: We estimate that the average annual cost of PD in Colombia in 2008 was US$16,747 (at September 2009 official exchange rate of Col$20566 per dollar) while HD costs on average US$18,199 per year, including in both cases direct costs of treatment-related complications but not other disease-related events. Average cost of each QALY gained in a dialysis patient in Colombia ranges from US$26,300 in PD to US$30,600 in HD. In our sample, PD was also associated with a reduced frequency of hospitalization and shorter hospital stays than HD (on average, 5.2 and 6.5 hospital days per year, respectively). CONCLUSIONS: In Colombia, costs of KRT are around two times the suggested cost-effectiveness threshold of three times the per capita GDP. On average, and perhaps in part attributable to different case mix, PD is dominant over HD. The model is highly sensitive to patients preferences (expressed in our case in QALYs), which suggest PD is particularly valued in independence seeking patients.