insurance, physician type, region, pre-dialysis co-morbidities, and pre-dialysis costs were used to evaluate the impact of pre-dialysis paricalcitol treatment on hospitaliza-
tions, outpatient services, and medication use in first year of dialysis. RESULTS: Multivariable analysis demonstrated predialysis paricalcitol use was associated with statistically the greatest reduction in all-cause hospitalizations (0.684–0.950), all-cause outpatient services (0.953, 95% CI: 0.933–0.973) and CKD-related hospitalizations (0.780, 95% CI: 0.663 – 0.898); CKD-related outpatient visits (0.962, 95% CI: 0.938–0.987); and CKD-related medications (0.922, 95% CI: 0.892–0.952). CONCLUSIONS: Paricalcitol for SHPT prior to dialysis is associated with fewer CKD-related medications; and all-cause and CKD-related outpatient services and hospitalizations in the first year of dialysis compared to no VDR activator treatment. Payers should consider these findings when make coverage decisions regarding the use of paricalcitol. Further studies are needed to confirm these results.

**PUK13**

**THE COST-EFFECTIVENESS OF EARLY SURGERY, ADDING BIOPY, AND WATCHFUL WAITING IN THE MANAGEMENT OF SMALL SOLID RENAL MASSESS: EVIDENCE FROM A MARKOV MODEL**

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OBJECTIVES: To compare the relative cost-effectiveness of three clinical strategies for managing T1a tumors (4 cm or smaller and limited to the kidney): early surgical excision upon detection of the tumor, adding percutaneous biopsy prior to surgery, and watchful waiting (WW) (monitor with computerized tomography every 6 months until the growth is greater than 2mm per year). METHODS: A Markov decision tree was used to evaluate the expected survival rate for QALYs and incremental cost-effectiveness (ICER) for each strategy from a societal perspective, based on literature-derived estimates for the probabilities and costs of different outcomes. Multiple one-way and probabilistic sensitivity analysis were conducted to examine the robustness of the results. RESULTS: In the base-case analysis, before surgery, improved survival by 0.018 QALYs compared with immediate surgery, at an incremental cost of $55,244/QALY, while the ICER of WW relative to surgery was $11,712/QALY. In the base-case, percutaneous biopsy is more expensive and less effective than WW. The treatment decision was most sensitive to variation of the degree of tumor growth that triggers surgery, utility of living with a mass during WW, and the probability of diagnostic biopsy for benign tumors. Choice of WW versus surgery critically depends on patients’ preferences for tumor removal and the risk of recurrence post surgery. In probabilistic sensitivity analysis, surgery was the most favored strategy when the willingness to pay (WTP) is less than $60,000/QALY. WW was favored over surgery when WTP > $60,000. CONCLUSIONS: Although WW results in the highest life-time utility, the favorability of WW depends on patients’ preferences for leaving a mass while natural history of watched masses during surveillance, which are poorly understood. Biopsy would be favored if its costs decrease and diagnostic certainty increases in the future.
incontinence, total incontinence, and micruria. 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 Tree Age Pro 2008 to obtain the cost-effectiveness ratios for both therapies. RESULTS: Overall cost-effectiveness ratios obtained were $375.27 ($297.59/0.793) per effectively treated patient with oxybutynin ER compared to $641.67 ($435.03/0.678) 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.

**ECONOMIC EVALUATION OF PERITONEAL DIALYSIS COMPARED WITH HEMODIALYSIS IN PATIENTS WITH CHRONIC KIDNEY DISEASE SECONDARY TO DIABETES OR HYPERTENSION IN COLOMBIA**

**OBJECTIVES:** We compared, through cost-effectiveness and cost-utility analyses, two main components of kidney replacement therapy (KRT): hemodialysis (HD) and peritoneal dialysis (PD) (including under PD both continuous cycling dialysis [CAPD] and automated peritoneal dialysis [APD]). METHODS: We used a simple decision-tree model, a third party perspective with only direct costs included, and a one-year timeline (with no discount). The model incorporated 20 variables, including costs obtained from local sources (databases of more than ten thousand patients) and epidemiological data both from international published literature, and Colombian databases (particularly for treatment-related complications). Utilities (in QALY) were 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$16747 (at September 2009 official exchange rate of Col$2066 per dollar) while HD costs on average US$18199 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$26300 to US$81060 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.