

MP24- 19- Cost Savings Achieved through Introduction of HOLEP and Care Pathway.

James Johannes MD

Lehigh Valley Health Network, James_R.Johannes@lvhn.org

Andrew Lai

Lehigh Valley Health Network, Andrew.Lai@lvhn.org

Angelo A. Baccala MD

Lehigh Valley Health Network, angelo_a.baccala@lvhn.org

Joseph Feliciano MD

Lehigh Valley Health Network, Joseph_R.Feliciano@lvhn.org

Clifford Georges MD

Lehigh Valley Health Network, Clifford_E.Georges@lvhn.org

See next page for additional authors

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Authors

James Johannes MD, Andrew Lai, Angelo A. Baccala MD, Joseph Feliciano MD, Clifford Georges MD, Melvin Steinbook MD, and Maria Voznesensky MD

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James Johannes MD, Andrew Lai, Angelo Baccala MD, Joe Feliciano MD, Clifford Georges MD, Melvin Steinbook MD and Maria Voznesensky MD

Lehigh Valley Health Network, Allentown, PA

INTRODUCTION & OBJECTIVE

Studies have shown clinical benefits of Holmium Laser Enucleation of the Prostate (HOLEP) over TURP or other BPH procedures. Besides learning curve, high capital costs are a barrier to introduction. Our objective is to investigate the impact on length of stay (LOS) as a source of cost savings compared to TURP, in the first 52 cases in a community hospital setting.

METHODS

A prospectively managed database was maintained at the onset of starting a HOLEP program. TURP data from our institution during the same period of time reviewed. All HOLEP patients were managed post-operatively according to a critical care pathway specifically developed to minimize length of stay. Patients underwent 2 hours of continuous bladder irrigation after which a clamping trial was performed. Patients were ambulated with the catheter and clinically evaluated. Patients were discharged home on POD 0 with a catheter if clinically appropriate. Patients were seen in the office 2-3 days post-op for a trial of void. To determine cost savings from decreased LOS, hospital expenses were sourced from the Henry J. Kaiser Family Foundation.

RESULTS

For the first 52 patients, the mean age was 65.7. HOLEP was performed for urinary retention in 32 patients and refractory urinary symptoms in 20. Mean estimated prostate volume was 91.2 grams. Mean resected volume of tissue was 33.5 (range 3-118cc) grams with 9.6% patients having malignant pathology. 3 month outcomes were comparable to larger series with IPSS overall and bother scores improving from 22.5 to 6.9 (69%) and 4.6 to 1.7 (63%) respectively. With our critical care pathway, length of stay averaged 10.7 hours including 6/52 (11.5%) requiring overnight stays. Mean catheter time was 3.8 days. This compared favorably to the mean TURP LOS during the same period of 36.5 hours. This shows a 25.8 hour LOS benefit with HOLEP. Based on then USA average daily cost of hospitalization of \$2,271, this decreased LOS potentially generates a health system savings of \$2,441.

Table 1. Pre-op Demographics (HOLEP)

Number of patients	52
Mean Age	65.7
Mean Pre-op IPSS	20.3
Mean Pre-op IPSS Bother	4.4
Mean Pre-op Estimated Prostate Volume	91.2
Pre-op Medications (%)	
Alpha blocker	96% (50)
5AR	40% (21)
Alpha and 5AR	31% (16)
ACH/B3 agonist	12% (6)
Primary HOLEP Indication	
Catheter Dependent Retention	32
Refractory luts	20

Table 2. Peri-Operative Outcomes

Mean Resected Volume	33.5 gm
Mean Operative Time, Total (min)	92
Mean Resection Time (min)	67
Mean Morcellation Time (min)	10
Mean Length of Stay (hours)	10.7
% Pts. Requiring Overnight Stay	11.50%
Mean Foley Time (days)	3.8

Figure 1: Post-HOLEP Care Pathway

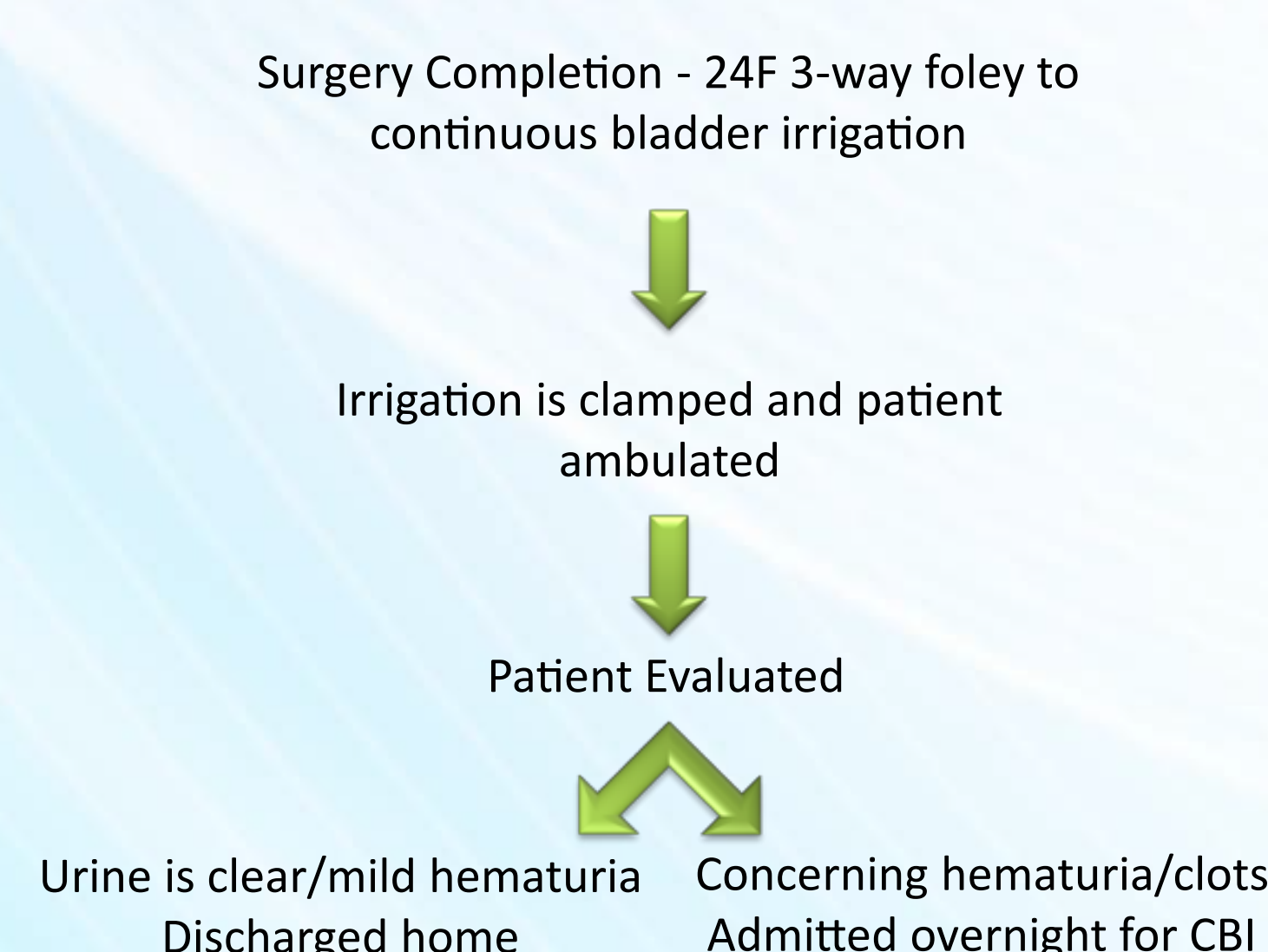


Figure 3: Change in IPSS Following HOLEP

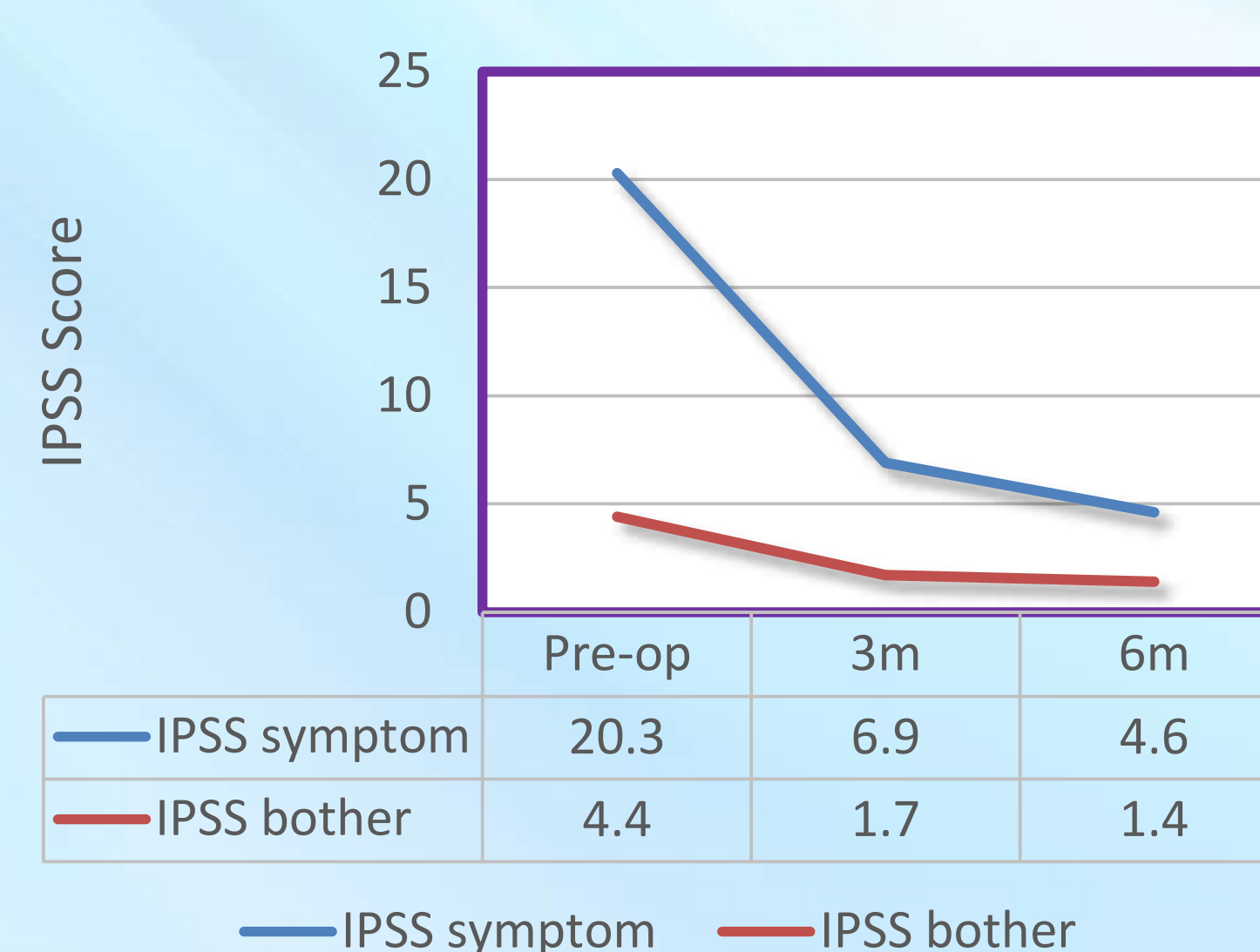


Figure 2: Change in QMax/PVR Following HOLEP

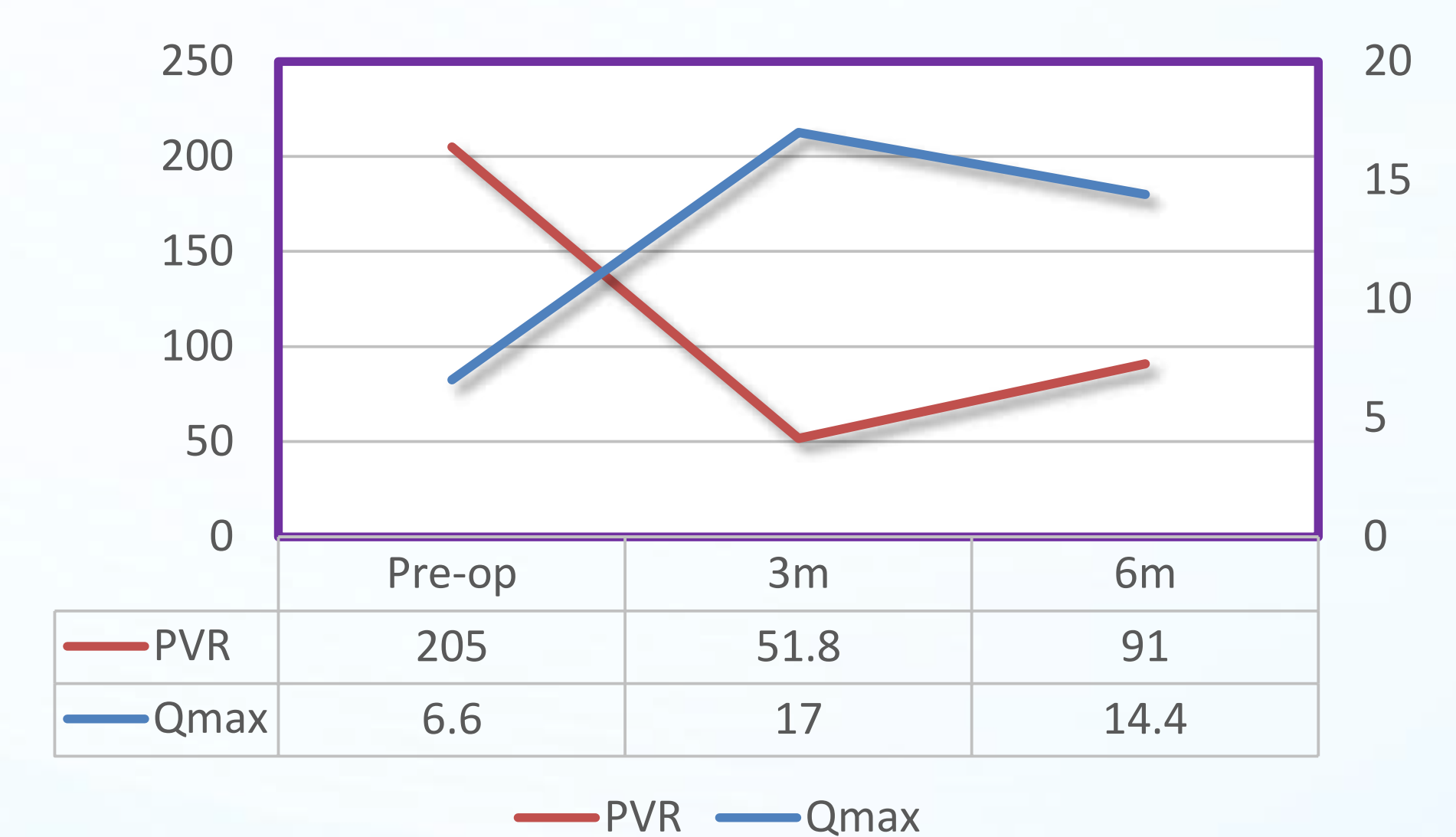
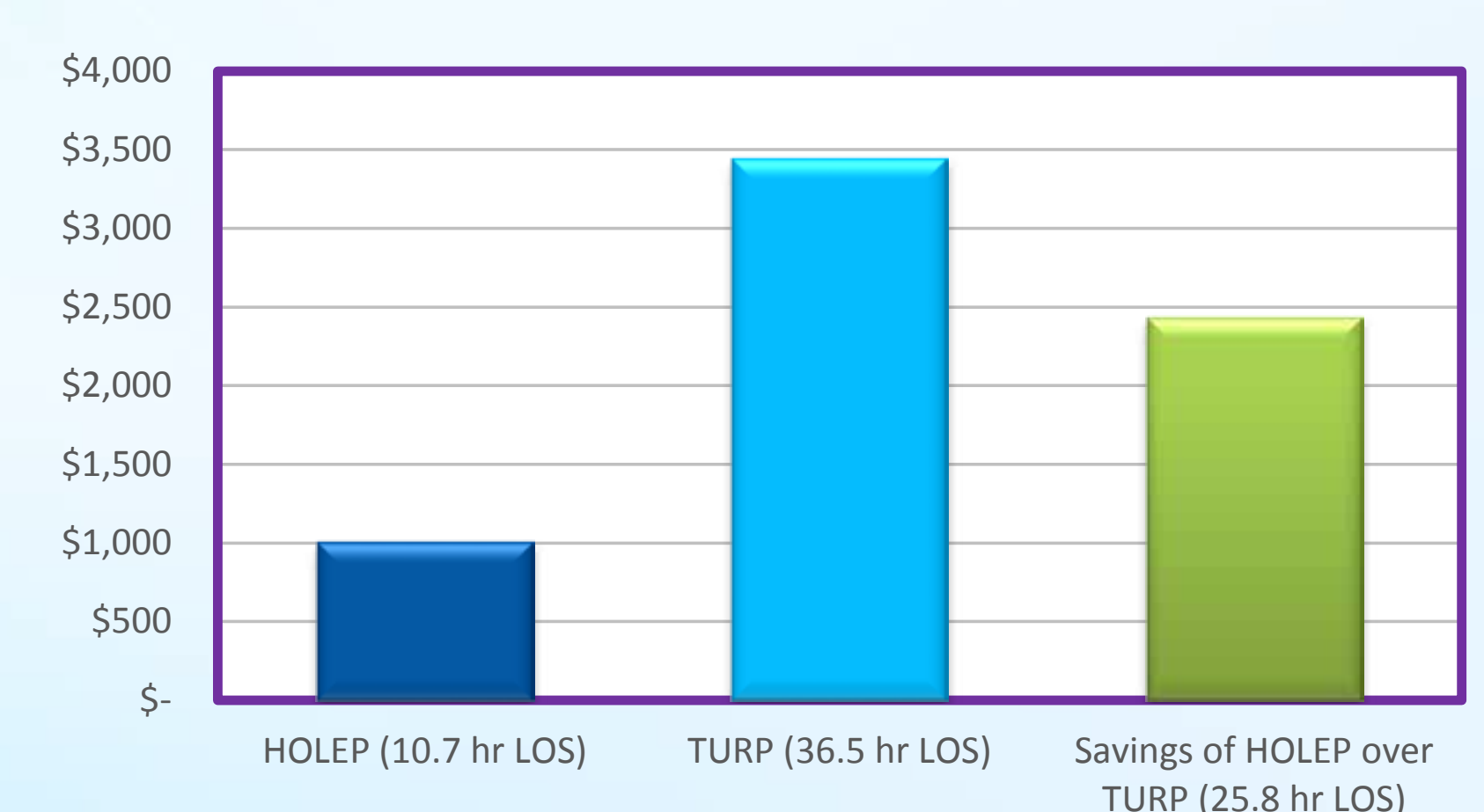


Figure 4: Cost Comparison in LOS Dollars



CONCLUSIONS

Implementation of a HOLEP program with a post-operative critical care pathway aimed at decreasing hospital length of stay significantly decreases hospital length of stay compared to TURP. The estimated cost savings from this decreased LOS more than offset the capital costs of a HOLEP program. In addition to the superior clinical outcomes, cost savings through short length of stay is another benefit of HOLEP over TURP.