

# Value-Based Health Care (VBHC) decisions in Localized Prostate Cancer Treatments: A single institution experience



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**Introduction and Objective:** Despite comparable outcomes of the different treatment options of localized prostate cancer (LPC), the side effects, the impact on quality of life (QoL) and the cost are diverse. In the era of shared decision-making, where health organizations make value-based health care (VBHC) decisions, the improvement of instruments to evaluate the different treatment options is crucial. In order to improve the VBHC at our institution, our study is evaluating – by Patient Reported Outcomes (PROs) – QoL and effects of therapies among the different treatment modalities in patients with LPC treated at our institution.

**Methods:** Patients with treatment naïve LPC were enrolled in this prospective cohort study. Before the treatment decision, the *Expanded Prostate Cancer Index Composite (EPIC-26)*, a validated questionnaire that measures health-related QoL was applied to all patients at baseline and at 6 months, regardless of the treatment received. The EPIC-26 questionnaire includes 26 items and evaluates 5 different health-related quality of life (HRQOL) domains (*Urinary Incontinence, Urinary Irritative/Obstructive, Bowel, Sexual, and Hormonal*). Response options for each EPIC item form a Likert scale, and multi-item scale scores are transformed linearly to a 0-100 scale, with higher scores representing better QoL.

**Results:** One hundred patients were included and prospectively followed in the last 10 months. Of them 79% underwent radical prostatectomy (RP) as primary treatment, 20% received radiation therapy and 1% were observed.

Of the patients that had RP, 53% (42 pts) had robotic-assisted RP, 12.6% (10 pts) laparoscopic RP and 34.4% (27 pts) suprapubic RP. At baseline the worst HRQOL domain were *Sexual*, 66.99 (61.02 – 72.96) and *Urinary Irritative/Obstructive*, 88.53 (85.56 – 91.51). At 6-months, there were statistically significant differences two HRQOL domains: *Urinary Incontinence*, from 96.26 to 85.90 (p=0.001) and *Sexual*, from 66.99 to 41.28 (p<0.001).

**Table 1: EPIC-26 Global Score for patients at baseline and at 6 months.**

Domain Summary Scores	EPIC26 Global Score Average [95 CI]		
	Baseline	6-month	P value
Urinary Incontinence	96.26 (94.23 – 98.29)	85.90 (80.04 – 91.77)	0.001
Urinary Irritative/Obstructive	88.53 (85.56 – 91.51)	88.81 (84.22 – 93.41)	0.92
Bowel	95.42 (93.41 – 97.42)	94.77 (91.04 – 98.45)	0.73
Sexual	66.99 (61.02 – 72.96)	41.28 (32.70 – 49.86)	<0.001
Hormonal	90.80 (88.24 – 93.36)	91.38 (87.34 – 95.41)	0.81

**Conclusions:** After treatment, the EPIC-26 was capable to identify worsening HRQOL in *Urinary Incontinence* and *Sexual* domains in patients who received treatment for LPC. PROs instruments may be used to help institutions and patients to improve VBHC decisions. Long follow up is necessary to evaluate HRQOL improvements from treatments over time in addition to compare different options of treatment among them.