

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

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## Abstract

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 localized prostate cancer. One hundred patients were included and prospectively followed, applying EPIC-26 before treatment and at 6 months, regardless of the treatment received, generating a scale of 0-100, with higher scores representing better QoL. The domains of Urinary Incontinence and Sexual function had statistically significant differences at 6 months, with low QoL scores. Long follow up is necessary to evaluate HRQOL improvements from treatments over time in addition to compare different options of treatment among them.

## Introduction

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. 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 ( $p < 0.0001$ ) and Sexual, from 66.99 to 41.28 ( $p < 0.0001$ ).

**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)	< 0.0001
Urinary Irritative/Obstructive	88.53 (85.56 – 91.51)	88.81 (84.22 – 93.41)	0.9204
Bowel	95.42 (93.41 – 97.42)	94.77 (91.04 – 98.45)	0.7311
Sexual	66.99 (61.02 – 72.96)	41.28 (32.70 – 49.86)	< 0.0001
Hormonal	90.80 (88.24 – 93.36)	91.38 (87.34 – 95.41)	0.8107

Range 0-100, with higher scores representing better QoL.

## Conclusion

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.