

# Implementation of an Electronic Patient Reported Outcome system in the Prostate Clinic at the Vancouver Prostate Centre

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## Background

- 15 year relative survival rate for prostate cancer (PC) is 96%.
- PC treatments can result in physical and psychological side effects that impair subsequent quality of life.
- Patient Reported Outcomes (PROs) can identify problems, facilitate the care, and improve overall survival of cancer survivors<sup>1</sup>.
- The Vancouver Prostate Centre (VPC) implemented systematic collection of electronic Patient Reported Outcomes (ePROs) as part of the standard of care at the Prostate Clinic.
- Initially, ePROs were collected using an iPad system, adopted from the University Health Network in Toronto, as part of a research project "Prostate Cancer Survivorship 360", approved by the UBC Research Ethics Board (H16-02631)
- The objective of this abstract is to describe the successes and challenges encountered during the first 12 months of implementation of ePROs in an established urology clinic.

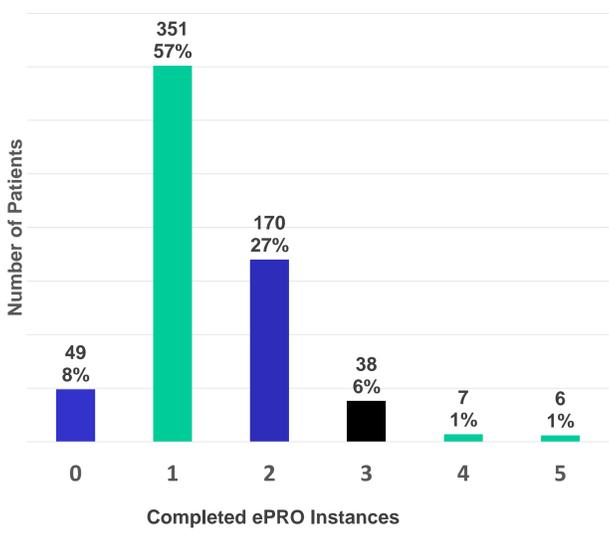
## Results

Between April 3<sup>rd</sup> 2017 and March 31<sup>st</sup> 2018, 621 patients were eligible to complete ePROs over 1060 visits.

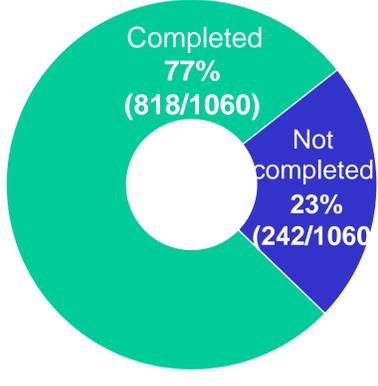
92% (572/621) of patients filled out ePROs at least once.

Figure 1 depicts the number of patients who have completed a certain number of ePRO assessments to date. Most have completed 1 or 2 ePRO assessments.

**Figure 1: Number of patients completing number of ePRO assessments**



**Figure 2: Overall completion rate of ePROs**



**Figure 3: Reasons for non-completing ePROs**

Reasons for not completing ePRO	Not completed N=242 (%)	% of total expected
Missed by coordinator	123 (51)	12
Not referred	51 (21)	5
Declined	31 (13)	3
Incomplete	24 (10)	2
Patient left	13 (5)	1

## Conclusions

The combination of a high percentage of participants (92%), high percentage of completed ePROs (77%) and low patient refusal (3%) over the first 12 months of operation suggests that implementation of the system was successful.

### Challenges encountered included:

- Push back by clinic staff regarding an additional step in patient work flow
- Technical difficulties with WiFi connectivity
- Need for staff to interact with each patient individually to ensure the ePROs assessments are completed per ethics board
- Tendency for partners/family members to assist in answering ePRO questions for the patient

### Mitigation strategies:

- Educate clinic staff re: survival benefits of ePROs
- Invest in improving WiFi strength
- Meet with ethics committee to appeal requirement that patients be consented by coordinator vs electronically on iPad
- Encourage partners/family members to allow patients to answer ePROs independently

### Next steps:

- Provision real time of ePROs results to urologists prior to clinic appointment-- first on paper and then by direct feed into EMR
- Display of serial data over time for patients and clinicians
- Generation of flag system for symptom complex of concern, eg suicide, spinal cord compression



## Methods

**Subjects:** Between April 3<sup>rd</sup> 2017 and March 31<sup>st</sup> 2018, all PC patients at pre- and/or post-PC treatment appointments were approached at each clinic visit. Eligible patients were identified using the clinic's electronic medical record, and after arrival and check-in, were asked to complete the ePROs. A coordinator provided assistance with the initial profile setup on the iPad and was available as required to troubleshoot any problems.

### ePRO measures on iPad:

- EPIC-26 EQ-5D-5L
- WHODAS 2.0 Distress Thermometer
- One question each from:
  - EORTC QLQ-PR25
  - Utilization of Sexual Medicines/Devices
- After the questionnaires, consent to be contacted about future prostate cancer research was requested.

## References

- Basch et al, Overall survival results of a trial assessing patient-reported outcomes for symptom monitoring during routine cancer treatment. JAMA Oncology 2017.

## Acknowledgements

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