

Implementation of an Electronic Patient Reported Outcome system in a Prostate Cancer Urology Clinic

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Background

Patients with Prostate Cancer (PC) have 10-year survival rates approaching 100%. However, almost all treatments for PC can result in side effects that can impair subsequent quality of life. Patient Reported Outcomes (PRO) can be valuable for identifying and promoting the treatment of the physical and psychological outcomes in PC survivors and are also a valuable tool for research and teaching for various context - i.e., population of interest and research question^{1,2}.

The Prostate Cancer Supportive Care (PCSC) Program implemented systematic collection of electronic Patient Reported Outcomes (ePRO) as part of the standard of care at the Vancouver Prostate Centre (VPC) Prostate Clinic at Vancouver General Hospital. ePRO were collected using an iPad system, adopted from the University Health Network in Toronto, to participate in a Canadian cancer registry (Prostate Cancer Survivorship 360°, approved by the UBC Research Ethics Board (H16-02631)).

The objective of this analysis was to review the successes and challenges related to the implementation of this system during its first 12 months of use.

Methods

Subjects: All PC patients at pre- and/or post-PC treatment appointments were approached between April 3rd 2017 and March 31st 2018. Eligible patients were identified using the clinic's electronic medical record, and after arrival and checking in, were asked to complete the ePRO. A coordinator provided assistance with their initial profile setup on the iPad and was available as required to troubleshoot any problems.

ePRO measures: Patients were asked to complete the EPIC-26, EQ-5D-5L, WHODAS 2.0, Distress Thermometer, and one question each from the EORTC QLQ-PR25* and Utilization of Sexual Medicines/Devices*.

Patients were then asked to complete the same set of ePRO at all subsequent clinic visits. Consent to be contacted about future prostate cancer research at the VPC was requested at the end of the questionnaires.

*Collected as of Aug 3rd, 2017

Acknowledgements and citations

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Results

Between April 3rd 2017 and March 31st 2018, 621 patients were eligible to complete ePRO. 92% (572/621) of patients filled out ePRO at least once. There have been 1060 visits thus 1060 ePRO assessments were expected.

Figure 1 depicts the number of patients who have completed a certain number of ePRO assessments. Majority of patients have completed 1 or 2 ePRO assessments (57% and 27%, respectively).

High completion rate was observed with 77% (818/1060) expected ePRO assessments completed. Reasons for non-completion of ePRO assessment are outlined in Figure 2. 51% (123/242) of ePRO were missed by the coordinators. Incomplete reports are most likely due to wifi connectivity issues or patients having to leave clinic.

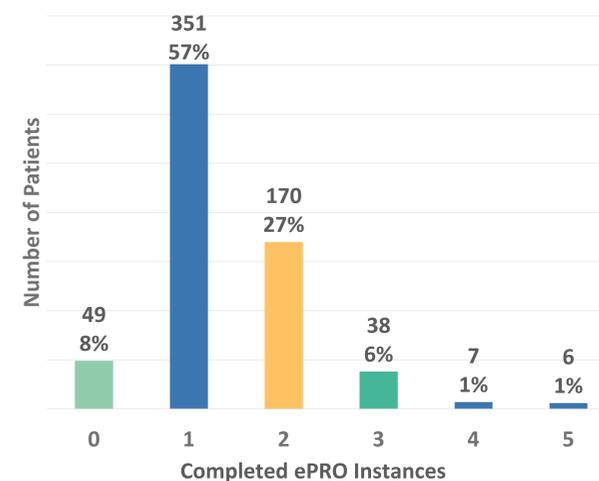


Figure 1: Number of patients completing number of ePRO assessments

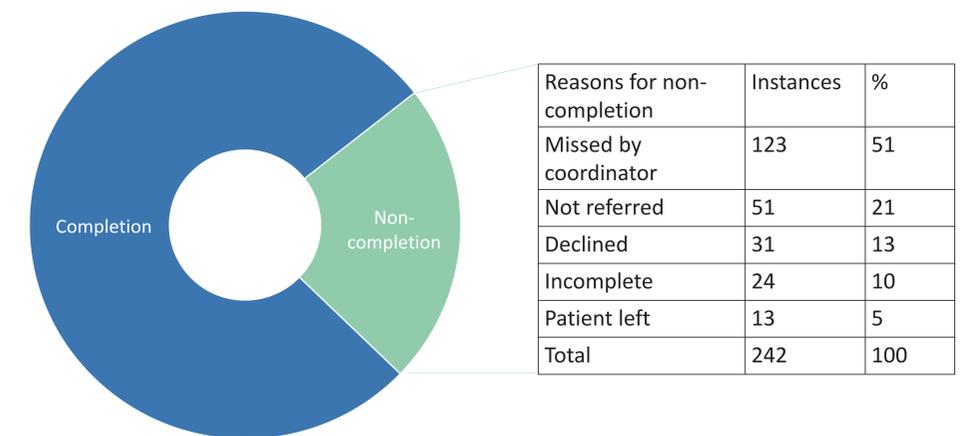


Figure 2: Reasons for Non-completion of ePRO

Conclusions & Future Directions

Initial results from the first 12 months of use of ePRO in the Prostate Clinic was demonstrated to be successful based on high completion rate and low patient refusal rates.

Challenges encountered included:

- training clinic staff and coordinators to direct patients to the iPad system to minimize missing ePRO assessments
- technical difficulties with WiFi connectivity
- the need for staff to interact with each patient individually to ensure the ePRO assessments are completed
- encouraging patients to be independent in ePRO completion

Next steps include work to provide the results of ePRO to urologists during real-time and serial summaries to patients. ePRO is playing a growing role in patient-centred high quality prostate cancer care, as well as in supporting important research³. Longer term analysis is needed to evaluate the usability and applicability of the ePRO at the Prostate Clinic.