

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

Maria Spillane^a, Phil Pollock^a, Lindsay Hedden^{a,b}, Eugenia Wu^a, Jennifer Jones^{c,d}, Matthew Andrew^{d,e}, Tran Truong^e, Yuliya Gavrylyuk^e, Larry Goldenberg^{a,f}, Celestia Higano^{a,f,g}

^aVancouver Prostate Centre, Vancouver, BC; ^bSchool of Population and Public Health, UBC; ^cPrincess Margaret Cancer Centre, Toronto, ON; ^dUniversity of Toronto, Toronto, ON; ^eUniversity Health Network, Toronto, ON; ^fDepartment of Urologic Sciences, UBC; ^gUniversity of Washington, Fred Hutchinson Cancer Research Centre, Seattle, WA.

✉ PCSC@vch.ca

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 quality of life after treatment. Patient Report Outcomes (PRO) can be valuable for identifying and treating physical and psychological outcomes in PC survivors and can also be a valuable tool for research.

The Vancouver Prostate Centre (VPC) implemented the collection of electronic Patient Reported Outcomes (ePROs) at the Prostate Clinic at Vancouver General Hospital (VGH) using an iPad system, adopted from the University Health Network in Toronto, to participate in a Canadian cancer registry (Prostate Cancer Survivorship 360^o, 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 6 months of use.

Methods

Subjects: PC patients at pre- and/or post-PC treatment appointments were approached between April 3rd 2017 and October 16th 2017. Eligible patients were identified using the clinic's electronic medical record and after arrival and checking in, were asked to complete the ePROs. A coordinator provided assistance with their initial profile setup on the iPad and was available as required to trouble shoot any problems.

ePROs measures: EPIC-26, EQ-5D-5L, WHODAS 2.0, Distress Thermometer, EORTC QLQ-PR25* and one question from the Utilization of Sexual Medicines/Devices*.

Patients were then asked to complete ePROs 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.

*Collection started as of Aug 3rd, 2017

Results

Between April 3rd 2017 and October 16th 2017, 358 VPC patients were eligible to complete ePROs.

309 of the 358 pts (86%) filled out ePROs at least once, and 49 (14%) did not complete ePROs.

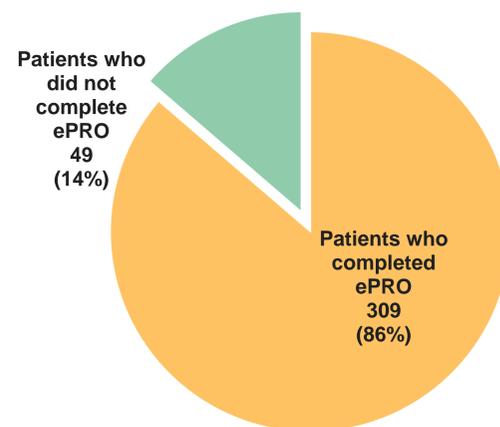


Figure 1: Rate of ePROs Completion

Among the 49 patients who did not complete ePROs, 24 (49%) were missed by the coordinator, 21 (43%) were not referred by clinic staff, and 4 patients declined completing ePROs.

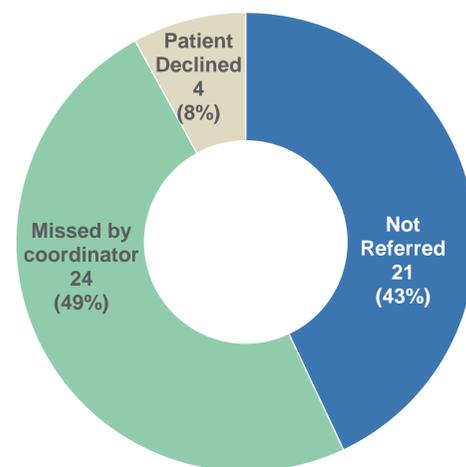


Figure 2: Reasons for Failing to Complete ePROs

Results cont'd

398 ePROs reports were collected: 236 patients completed ePROs at one appointment, 62 patients at 2 appointments, 6 patients at 3 appointments, and 5 at 4 appointments.

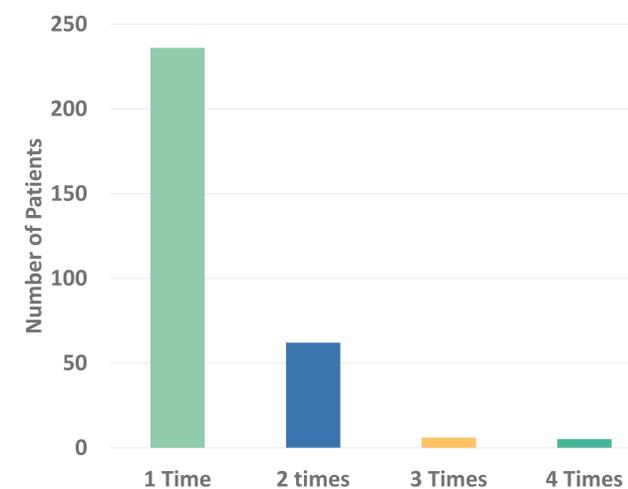


Figure 3: Number of times ePROs have been completed per patient

WiFi connectivity issues were encountered 30 of the 398 times (7.5%), which prolonged completion time and on 3 occasions resulted in patients refusing to log back onto the iPads to complete ePROs. On these occasions patients completed the PROs on paper and the coordinator manually entered the data.

On 15 out of the 398 occasions, patients only completed ePROs partially.

Table 1: Issues encountered during ePROs completion

Issues	Incidence	Percentage
WiFi Connectivity	30	7.5%
Partial Completion of the questionnaire	15	3.8%

Conclusions & Future Directions

Initial results from the first six months of use of ePROs in a Prostate Cancer Urology Clinic was demonstrated to be successful based on completion rate and low patient refusal rate.

Challenges encountered included:

- training clinic staff to refer patients to complete ePROs at appropriate times
- technical difficulties with WiFi connectivity
- the need to interact with each patient individually

The use of the data collected from this (and similar) systems are playing a growing and important role in the provision of patient-centered, high quality prostate cancer care, as well as in supporting important research.

Acknowledgements

We would like to thank all the patients at VPC for their role in the successful implementation of the ePROs system. We would also like to acknowledge the urologists and staff at the Vancouver Prostate Centre and Prostate Clinic at VGH for their help and support for the implementation of the ePROs system.

This work was awarded by Prostate Cancer Canada (Grant #TAG2015-02) and is proudly funded by the Movember Foundation.

Financial support for the PCSC Program and its activities is provided from a number of government and non-government organizations and philanthropic donations.