

Two Year Review of the Electronic Patient Reported Outcome (ePRO) System in the Prostate Clinic at the Vancouver Prostate Centre (VPC)

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BACKGROUND

- Prostate Cancer (PC) patients have 10-year survival rates approaching 100%.
- 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
- PRO is a valuable tool for research and teaching

Since April 2017:

- The Prostate Cancer Supportive Care (PCSC) Program implemented systematic collection of electronic Patient Reported Outcomes (ePRO) at the Vancouver Prostate Centre (VPC) Prostate Clinic at Vancouver General Hospital.
- Used an iPad system (figure 1) adopted from the University Health Network in Toronto.
- Participated in a Canadian cancer registry (Prostate Cancer Survivorship 360^o, approved by the UBC Research Ethics Board (H16-02631)).

OBJECTIVE

To review the successes and challenges related to the implementation of this system over the past 2 years of use.

METHODS

- Approached all PC patients pre- and/or post-PC treatment in clinic to complete the ePRO.
- Assistance provided for initial profile setup on the iPad and to troubleshoot any problems.

ePRO Measures:

EPIC-26	WHODAS 2.0
EQ-5D-5L	EORTC QLQ=PR25*
Distress Thermometer	
Utilization of Sexual Medicine/Devices*	

*Collected as of Aug 3rd, 2017

- ePRO were completed at the first appointment and then at all clinic appointments thereafter.
- Consent to be contacted about future PC research (Permission to Contact (PTC)) at the VPC was requested at the end of the first set of ePRO.

RESULTS



Figure 1. iPad set up with ePRO application for clinic use

COMPLETED ePROs:

Between April 3, 2017 and March 31, 2019:

- 1027 patients eligible to complete ePRO.
- 85.5% (878/1027) completed ePRO at least once.
- 1075 ePRO instances expected in Year 1.
- 1258 ePRO instances expected in Year 2.

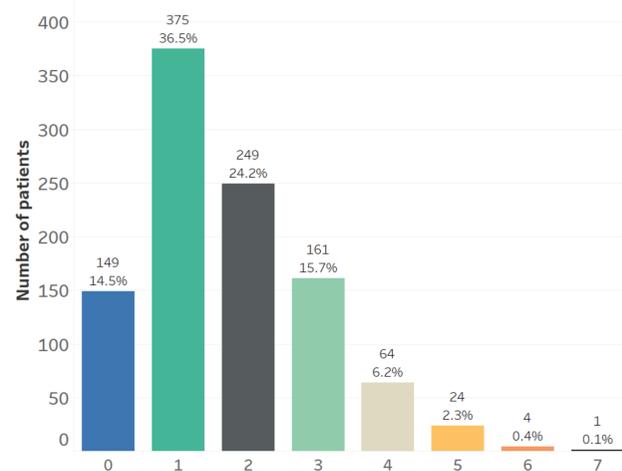


Figure 2. Number of patients who have completing 0-7 ePRO assessments

Table 1: "Permission to Contact for Research" responses

Permission to Contact for Research	Instances (n=878)	% of total
Yes	723	82.3%
No	123	14.0%
Pending (did not answer)	32	3.7%

- Of those patients that responded "Yes", 424/723 were recruited to at least one registry study.

Non-completion of ePROs:

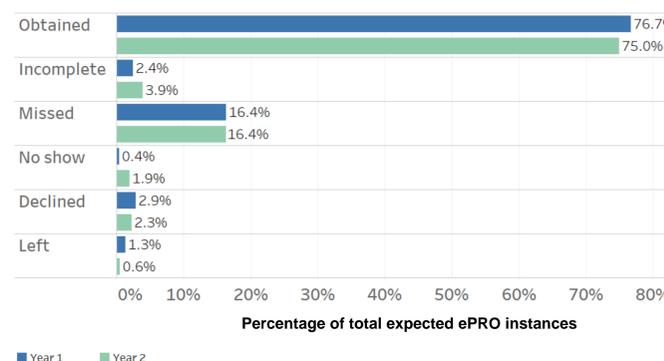


Figure 3. Comparison of completion rates and reasons for non-completion between Year 1 and 2

Completion and non-completion rates:

- Year 1 and 2 ePRO completion rate was high
- More "no-show" patients in year 2 (1.9%) compared to year 1 (0.4%)
- Year 1 and 2 "missed" ePROs rate was the same, despite altering strategies and timeframes of approaching patients

Reasons for Incomplete ePRO reports:

- WiFi connectivity issues
- Patients having to leave clinic.
- More incomplete ePRO in year 2. This was likely due to the change in WiFi network in early 2018 which caused significant issues with WiFi stability for iPads.

Eligible patients unable to complete ePRO:

- Limited English (n=47)
- Limiting disability (e.g. vision or mentally impaired (n=11)),
- Not returning to clinic after initial appointment (e.g. back to referring specialist, or seen at BC Cancer (n=15)).

CONCLUSIONS

- ePRO were successfully implemented into clinical practice: high completion and low refusal rates.
- ePRO is playing a growing role in high quality, patient-centred PC care, as well as in supporting important research³.

CONCLUSIONS CONT'D

Challenges encountered:

- Training clinic staff and coordinators to direct patients to the iPad to minimize missing ePRO assessments
- Technical difficulties - WiFi connectivity
- The REB mandated need for staff to interact with each patient individually to ensure the ePRO assessments are completed

FUTURE DIRECTIONS

- Provide real-time results of ePRO to urologists
- Provide alternatives for patients who are unable to complete ePRO due to language or other limitations
- Continue work to minimizing missed ePRO

REFERENCES

- Retzer A, Keeley T, Ahmed K, et al. Evaluation of patient-reported outcome protocol content and reporting in UK cancer clinical trials: the EPiC study qualitative protocol. *BMJ Open* 2018;8:e017282. doi:10.1136/bmjopen-2017-017282
- Bryan, S., Davis, J., Broesch, J., Doyle-Waters, M. M., Lewis, S., McGrail, K., Sawatzky, R. (2014). Choosing your partner for the PROM: A review of evidence on patient-reported outcome measures for use in primary and community care. *Healthcare Policy = Politiques De Santé*, 10(2), 38-51. doi:10.12927/hcpol.2015.24035
- McGrail, K., Bryan, S., & Davis, J. (2011). Let's all go to the PROM: The case for routine patient-reported outcome measurement in Canadian healthcare. *Healthcarepapers*, 11(4), 8.

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