

Background

RATIONALE

In rural and remote areas, access to support from specialized palliative care (PC) consultants can be limited.^{1,2} Poor health can prevent travel by clients,³ and time, weather, and workload can impede timely home visits by consultants.^{2,4,5} In-home PC videoconsultation has the potential to overcome these barriers.^{6,7}

PURPOSE

To evaluate the use of mobile web-based videoconferencing (WBVC) by rural Home Care (HC) nurses to connect distant PC consultants with clients and families in their homes.

TIME FRAME

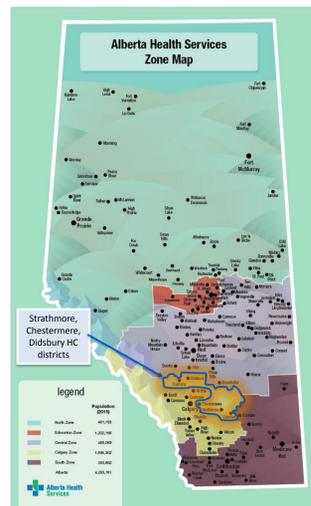
December 2016 to November 2017

LOCATION

Three rural HC districts (Strathmore, Chestermere, Didsbury) in the Calgary Zone of Alberta Health Services (AHS). The Calgary Zone rural area extends ~100 km in all directions from the city limits of Calgary, Alberta.⁴

POPULATION

Integrated HC clients referred to the Rural PC Consultation Team. The team serves a population of ~400,000 living outside Calgary city limits, but within Calgary Zone.⁴



Methods

QUALITY IMPROVEMENT PILOT PROJECT

HC nurses initiated WBVCs with a distant Rural PC nurse or physician consultant from clients' homes over an encrypted, secure internet connection established using iPhone hotspot or Wi-Fi. WBVC visits were conducted using AHS laptop computers with webcam, speakerphone, and Microsoft Skype for Business®.

PROJECT INCLUSION CRITERIA:

- Client admitted to 1 of 3 targeted rural HC districts
- Client referred to Rural PC Consultation Team for initial or follow up consult
- English-speaking
- Family members invited to participate if present during home visit

PROJECT EXCLUSION CRITERIA:

- Client cognitive or physical impairments that would impede WBVC communication

DATA COLLECTION

Paper or online (AHS SelectSurvey.net) questionnaires for client/family, home care nurse, palliative consultant, and additional caregiver.



Results

Participants at WBVC visits



18 visits



12 clients

- Age 56-80
- 30-80% on Palliative Performance Scale



15 family members



9 health care providers

- 3 HC nurses
- 3 PC physician consultants
- 2 PC nurse consultants
- 1 oncologist

Impact of WBVC visits



43 km / 42 min

Average travel distance/time saved by client with in-home WBVC versus telehealth consult at nearest rural facility



120 km / 1.8 hours

Average travel distance/time saved by PC consultant per visit



2276 km / 36 hours

Total travel distance/time saved by PC consultants for all visits



49 hours

Average time clients seen earlier by WBVC than in-person

Satisfaction with WBVC visits



17/18 visits

Video call quality very good - good

6 Technical issues

All resolved by users



100%

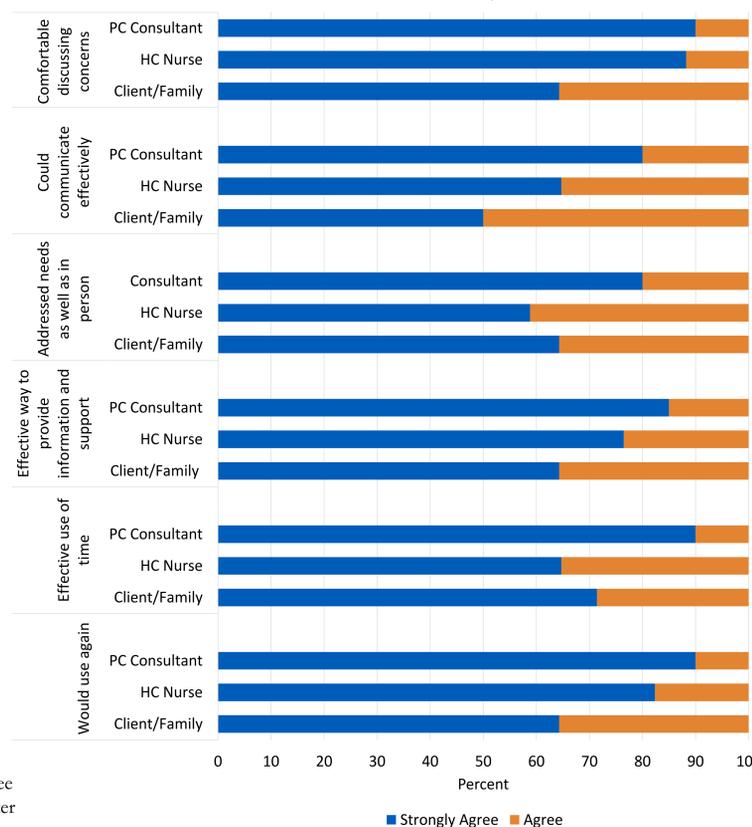
Clients/Families agree health information is safe and private when using video call



17/18 visits

All care providers agree WBVC facilitated better clinical decision-making than reviewing case by phone alone

WBVC Questionnaire Responses*



*Response Rates: Client/Family 14/18 visits, Home Care (HC) Nurse 17/18 visits, Palliative Care (PC) Consultant 18/18

Client / Family

“Overall the experience was very positive...I enjoy this type of forum as everybody is included and is kept informed as to any changes in the type of treatment. I would highly recommend that this project move forward as it should be main stream in the Health Services and utilized on a daily basis...”

“I likes video call a lot better and not going to the doctor office felt very comfortable.”

“I think it is an efficient way of accessing expertise for a patient.”

“Picture/ video froze a few times. Able to move camera to concern areas. Good use of time. Less overall travel.”

Home Care Nurse

“Able to get next day consult via video where would have had to wait until next week for a consult so very efficient for time and client care.”

“Worked well as client unable to leave home to see doctors at this time without an ambulance.”

“The only thing different than a live consult is the physician is unable to do a physical exam.”

“Was much better for doctor to see client and ask questions directly versus being relayed through nurse to doctor back to client and repeating.”

PC Consultant

“...A visual picture of the patient provides much more valuable information than could have been obtained through telephone (descriptive words). A picture is worth a thousand words literally.”

“This was an excellent example of a time saving visit. It would have required two hours of driving to visit with the patient - one hour to the patient's home and back.”

“I seemed to be able to have a very effective conversation with the patient and perform the necessary assessment.”

“Helpful to see this patient as it helped to get a feel for his perspective, body language and issues better than if I had just talked to nurse or patient by phone. I doubt I would have made any different decisions if I had seen him in person.”

Conclusions

- Rural Home Care nurses can effectively use WBVC for PC consultation from clients' homes.
- WBVC is a convenient, acceptable way to provide more timely specialized PC support to clients and families in rural areas when in-person visits are not feasible.
- WBVC technology and training for PC consultation will be expanded to all Calgary Zone rural HC districts and considered for provincial scalability.

Contact Information

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References

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