Development and Evaluation of Multimedia Patient Education Tools to Better Prepare Prostate-Cancer Patients for Radiation Treatment (Randomized Study)

Due to the high dose delivery in prostate radiotherapy, patient preparation is crucial: Literature is limited regarding the effectiveness of educational interventions on patient preparedness - Patients struggle with comprehension in written and verbal communication - Patients struggle following these instructions In 2000, Thomas et al. utilized an educational video for patients (n=220) undergoing radiotherapy and chemotherapy - Results showed the video group had lower anxiety scores compared with the non-video group (HADS) Current practice at the Odette Cancer Centre (OCC) is to give verbal information about bladder and rectum preparation for prostate CT scan Three-month retrospective review at OCC indicated that 76% of OCC Prostate patients needed to be rescanned during CT planning High rate of rescanning increases: Patient costs (parking, transportation); hospital costs (cascade effect), stress/anxiety in patients and family members

Objectives

• To determine the effectiveness of the introduction of a video on patient preparedness and patient satisfaction for patients receiving a planning CT Scan for prostate radiotherapy (RT)
• To evaluate patient satisfaction
• To evaluate radiation therapist satisfaction

1) Multimedia Education Tools Production

a) Development of Pamphlet
Written interprofessionally
Follows standardized guidelines
Accounted for literacy levels with visual clues

b) Development of Video Education Tool
Production Phase:
- Script written interprofessionally
- Follows standardized guidelines
- Accounted for literacy levels with repetition
Testing Phase:
- Tested on interprofessional team consisting of patients, radiation therapists, and Office of Patient Experience
Revision Phase:
- Feedback incorporated from the interprofessional team

2) Patient Recruitment and Data Collection
- Research assistant (RA) accrued patients at pre-planning appointment date or by phone
- RA presented study rationale
- Patients who consented were randomly assigned to control or experimental group
- RA called patients 1-3 days before CT planning appointment
- Planners (RT) collected bladder and rectum volume and re-simulation scans
- RA followed up with patient at CT sim appointment to complete satisfaction questionnaire

Results

Re-Scan Rates Pre and Post Study

Overall, > 50% reduction in rescan rate from pre-study review across both groups

Satisfaction Surveys:

Pamphlet Group
- 90% felt prepared
- 4.5/5 in clarity and readability
- 4.3/5 in aesthetics

Multimedia Group
- 97% felt prepared
- 4.4/5 in clarity and readability
- 4.7/5 in aesthetics
- Would recommend video

Statistical Results:
- Negative correlation between age and the quality rating for pamphlet information (r = -0.45, p=0.018)
- Negative correlation between time of accrual and simulation appointment with patients feeling of preparedness (r = -0.39, p=0.002)

Re-Scan Rates:

Pamphlet Group
- 65 Patients (July – Jan)
- 29 Handout
- 22 Prepared
- 0 Resim for bladder
- 2 Resim for rectum
- 6 did not complete study

Multimedia Group
- 29 Video + Handout
- 22 Prepared
- 4 Resim for bladder
- 3 Resim for rectum

Patient Comments:

Pamphlet Group
- Wanted something to walk them through the day
- Would not have been prepared if not been part of the study

Multimedia Group
- Liked the length of video and found it informative, easy to understand
- Multiple patients commented on missing info due to depressive feelings, thus appreciated repetitive education
- Liked that they could watch the video with their spouse and family

Limitations:
- Materials only available in English without subtitles
- Many patients were accrued by phone
- Data collection variability between radiation therapists
- Some data not captured at time of simulation

Future Impact:
- Provide pamphlet and video in multiple languages
- Implementation of the information pamphlet for planning and treatment delivery for other oncology sites that use the same patient preparation (Gynae, Anal Canal and Rectum)
- Minimize wait time to maximize patients’ retention of preparation instructions
- Video is available on YouTube
- Link now available on Sunnybrook website

Conclusion

Link now available on Sunnybrook website
sunnybrook.ca/prostateCT