

Implementation of Video-Based Pre-Procedure Education Embedded into Patient EMR: A Quality Improvement Project

Cheryl McFague, BSN, RN, CAPA, CPAN, Lisa Hale, MSN, RN, Ruth Pack, MS, RN

Statement

Patient education supports and enhances the patient/caregiver to prepare for home needs. Patient education reduces anxiety, improves patient participation and self-efficacy, leading to better health outcomes

Background

Efforts within healthcare to provide education are met with many barriers:

- Increased demand for same day procedures
- Limited time for pre-procedural education
- Inconsistent education
- Barriers to patient comprehension of education given on day of procedure:
 - Stress, information overload
 - Time, interruptions
 - Anesthesia/sedation, pain
 - Patient factors, learning style, health literacy

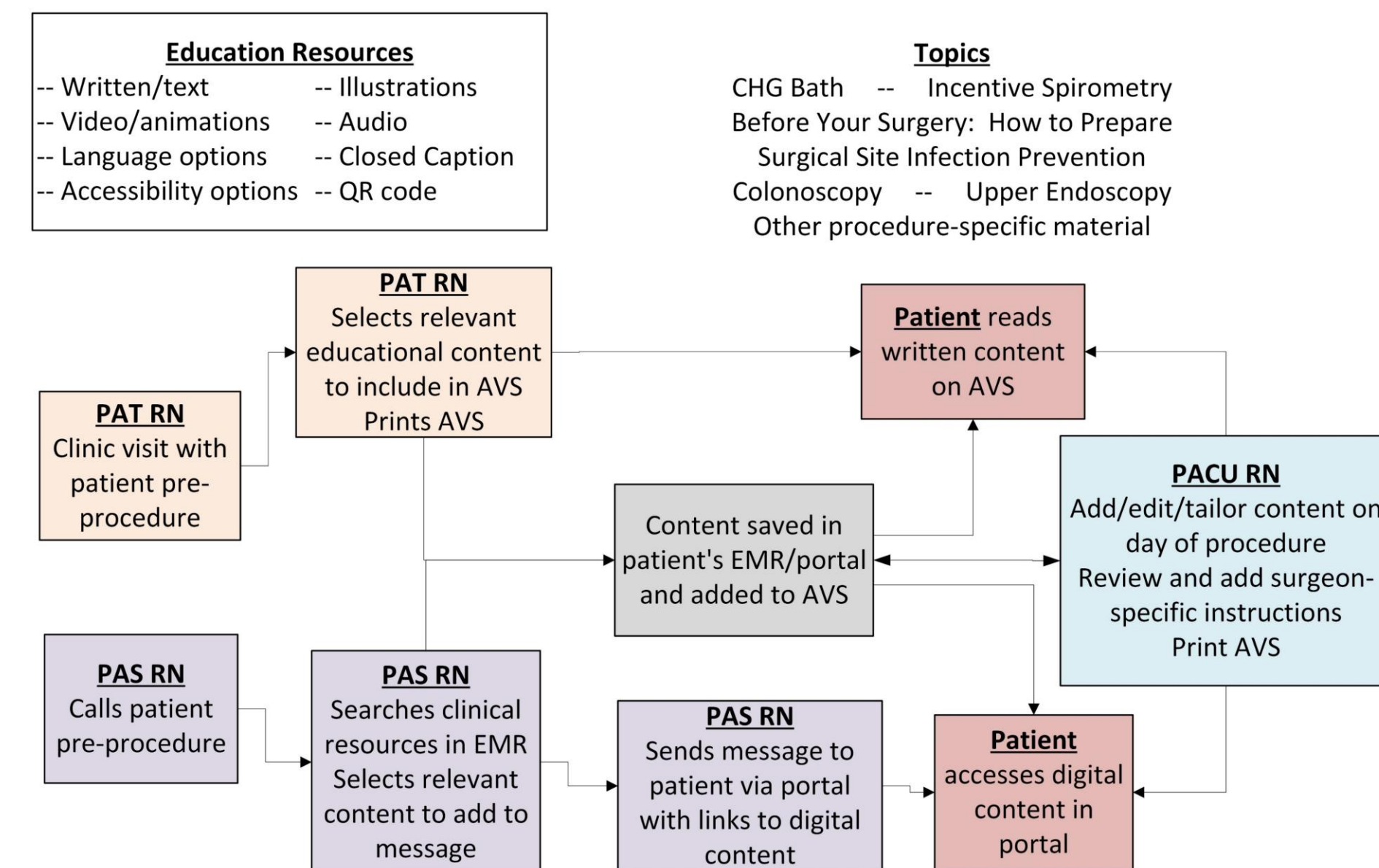
Goals

- Optimize patient prior to procedure
- Prepare patient for post-procedure
- Provide standardized pre & post-procedural education in a multimodal platform before day of service, tailored to meet individual patient needs
- Improve patient outcomes:
 - Increase patient satisfaction
 - Decrease surgical site infections
 - Increase patient understanding of preprocedural prep instructions
 - Increase patient engagement and self-agency
- Improve efficiency throughout the perianesthesia experience
- Decrease number of same-day cancellations

Methods

- **Evaluate technology available**
 - Video and audio-based education included in EMR was linkable to portal and After Visit Summary but was not used.
 - Language, accessibility, learning needs functions
- **Identify nursing departments for implementation**
 - Preanesthesia Testing Clinic (PAT)
 - Preadmission Services Department (PAS)
- **Identify educational topics**
 - Met with clinical managers in Endoscopy, Pre-op/PACU & provider practice to review/approve content
- **Develop role of PAT clinic staff**
 - Patients were already receiving an After Visit Summary at their in-person visit; RNs were educated to access written and video clinical education resources and add them to AVS.
 - Staff could add QR code to AVS for those without portal.
- **Develop role of PAS department**
 - Patient phone call was not linked to surgical encounter, and RNs had no access to education content, were unable to communicate with patient portal.
 - Nurses were trained to assess educational needs and search educational content
 - Nurses were enabled to access the content and create hyperlinks in the patient's portal to send via messaging
- **Evaluation/Metrics**
 - Surveyed patient engagement and satisfaction with educational materials and use of patient portal
 - Same day cancellation rates for Endoscopy to be assessed
 - National Research Corp (NRC) Health data on satisfaction

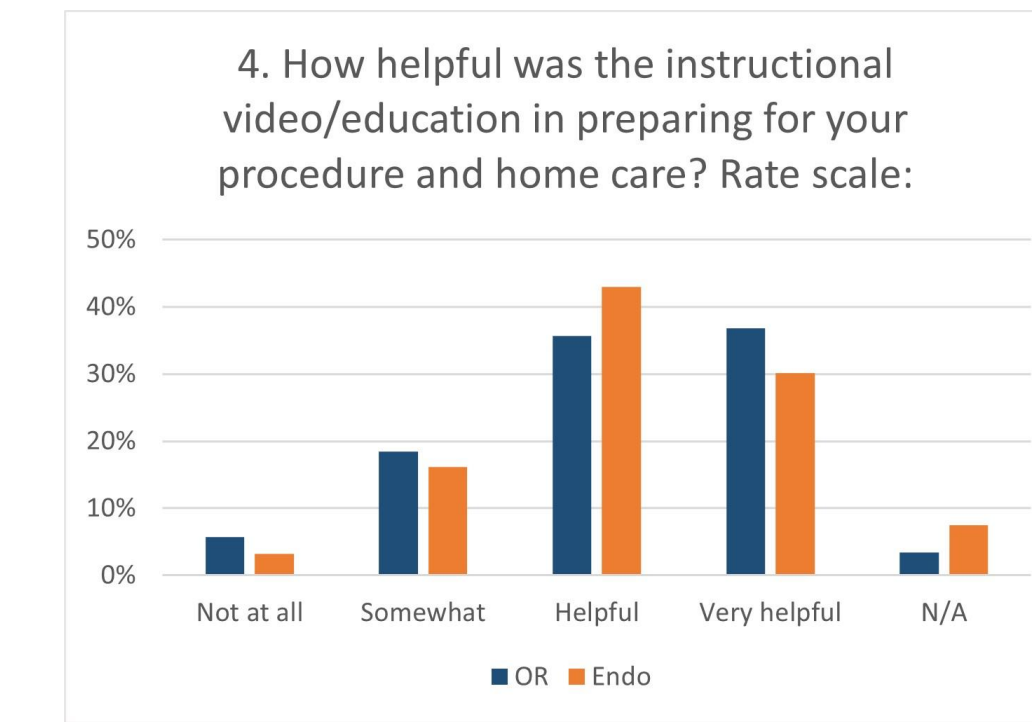
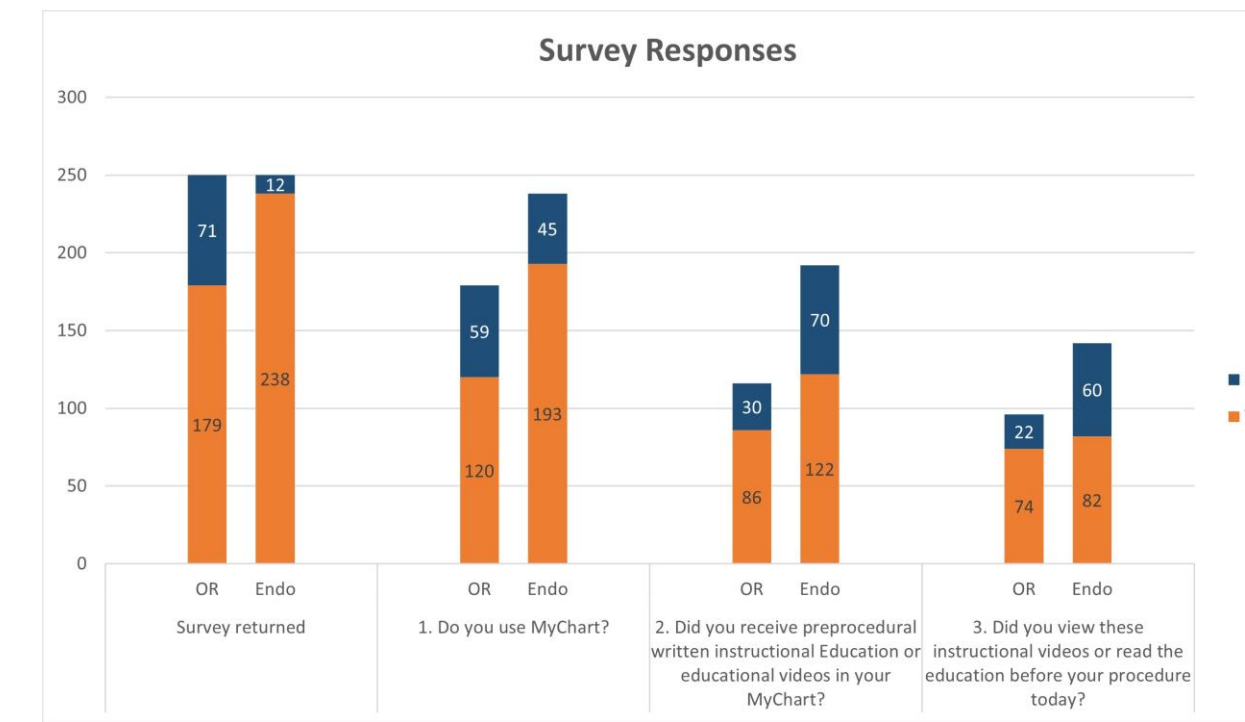
Workflow



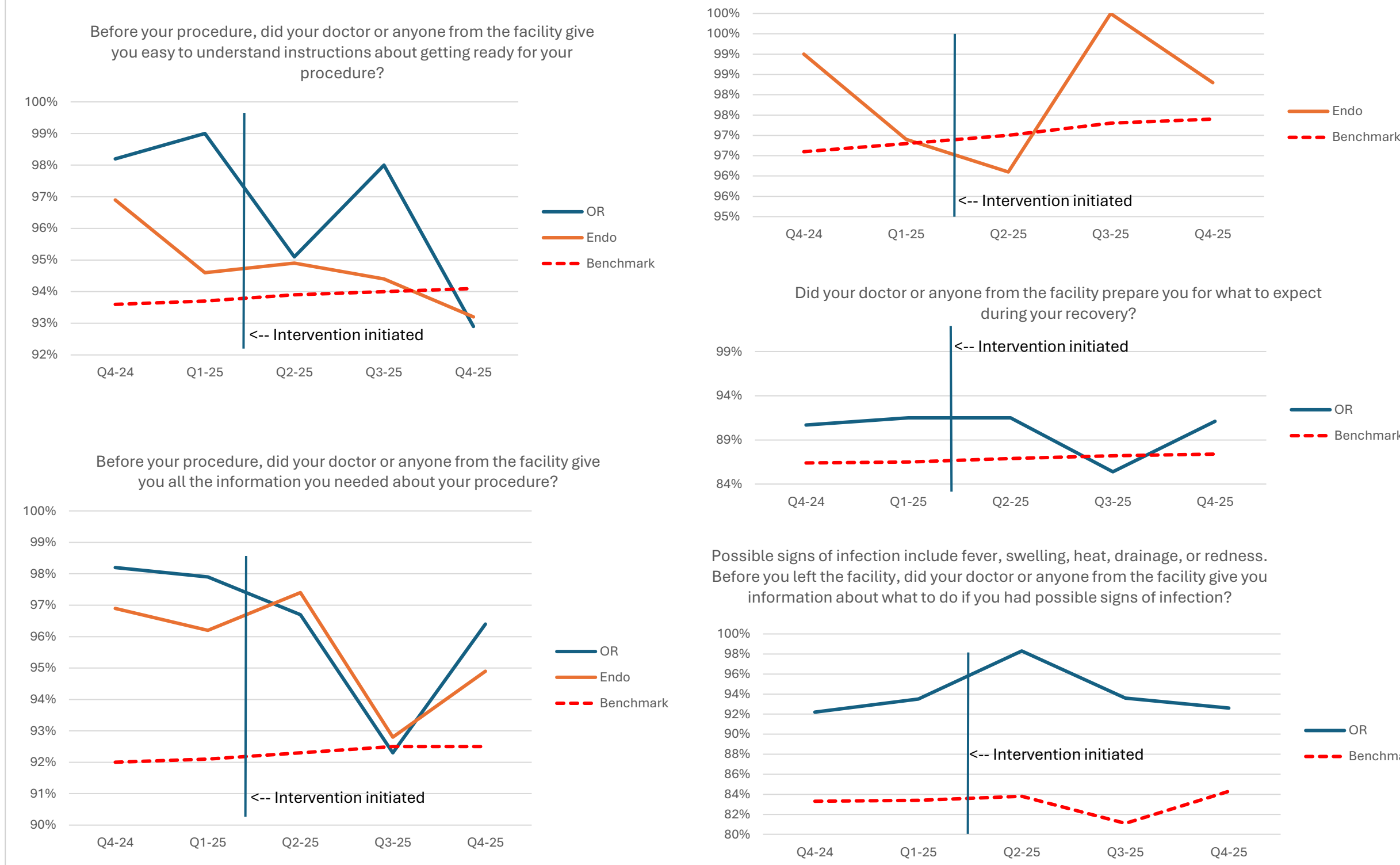
Implementation and Results

Embedded educational resources in EMR:

- Video, text, and audio for various communication needs
- Allows search for specific content
- Ability to add to patient EMR and messaging
- May be translated to multiple languages



Patient Satisfaction Data



Discussion

- 73% of patients surveyed found the educational materials helpful or very helpful.
- Preprocedural patient education utilizing multimodal platforms improves patients' satisfaction, preparedness for procedure, and patient engagement.
- PAS nurses find embedding content into EMR:
 - Disruptive to workflow
 - Time consuming
 - Uncertain which education is most appropriate
- PAS and provider office perceived fewer clarification phone calls from patients on use of CHG bath & Colon prep.
- Effect on same-day cancellations was undetermined due to lack of established tracking system for Endoscopy.
- PAT nurses were easily able to provide education into the patients' portal for home use.
- Surgical & Endoscopy staff used different processes to distribute the survey, leading to possible loss of data.
- At least 33% of procedural patients do not use patient portal; discussed options with IT/CNIO/Care Coordination for expansion of access.

Patients appreciate it! Unsolicited comments sent directly to PAS RNs:

"Thanks for the helpful and informative videos"

"The video was well done and thorough"

"Thank you for sending us the preop and surgery preparation video and instructions!"

Future Work

- Improve work efficiency of the PAS staff with pre-populated links to the Clinical Reference tab for booked procedure
- Continue to track and evaluate satisfaction scores for sustained improvement
- Ongoing collaboration with Digital Engagement & Office of Strategic Communications with development of patient educational link on the hospital homepage
- Evaluate process of tracking same-day cancellations for endoscopy – new procedure platform allows for collection of data
- PACU requesting new iPads for staff to review same post-care education as given by PAS RNs, along with the provider specific info, with direct access to hospital site – awaiting arrival from IT department.
- Explore procedure-specific education resources and collaborate with additional outpatient providers

Team

- Preanesthesia Testing (PAT) nurses
- Preadmission Services (PAS) nurses
- Perioperative Clinical Development educator
- PACU clinical manager
- Endoscopy clinical manager
- Nurse Informaticist and IT analyst for EMR
- Chief Nursing Informatics Officer
- Executive Director of Care Coordination
- Center for Quality and Safety
- Compliance
- PACU & Endoscopy Unit-Based Practice Council
- Gastroenterology practice manager & staff

References

Chatterjee A, Strong G, Meinert E, Milne-Ives M, Halkes M, Wyatt-Haines E. The use of video for patient information and education: A scoping review of the variability and effectiveness of interventions. *Patient Education and Counseling*. 2021;104(9).

Dahodwala M, Geransar K, Babion J, de Groot J, Sargious P. The impact of the use of video-based educational interventions on patient outcomes in hospital settings: A scoping review. *Patient Education and Counseling*. 2018;101(12).

Gonella S, Dallino C, Reilo M, et al. Effects of video-based preoperative educational intervention plus nurse-led reinforcement discussion on knowledge, self-efficacy, and resilience in patients undergoing major surgery. *Clinical Nursing Research*. 2021;30(6).

Graham S, Poyma C, Sletka K. The effectiveness of video-based patient education in the post-operative setting. *ASPAN National Conference*. 2024; session 303.

Helms L. Video education to improve preoperative anxiety in the bariatric surgical patient: A quality improvement project. *Journal of PeriAnesthesia Nursing*. 2020;35(5):467-471.

Lee YJ, Bettick D, Rosenberg C. Improving pain self-efficacy in orthopedic surgery patients through video-based education: A quality improvement project. *Journal of PeriAnesthesia Nursing*. 2024; 25(5):451-458.

Mehlch K. Teaching to empower: Implementing patient education techniques to achieve maximum wellness. *VIN/APAN 2024 Fall Conference Update*.

Odom-Forren J. *Drain's PeriAnesthesia Nursing: A Critical Care Approach*, 8th ed. 2024; chapters 2, 28.