Improving patient satisfaction with discharge videos

Standardizing patient education with technology establishes a culture of patient safety.

By Colleen Villamin, MSN, RN, OCN, CNL, and Kati Berg, BSN, RN, PCCN

Technology plays an increasingly important role in healthcare delivery, whether in the form of electronic health records, patient portals, telemedicine, or social media. Patient education across specialties is naturally influenced by a number of technological innovations including app-based learning, virtual and augmented reality, and web- and social media–based educational platforms. Video-based education is particularly effective for preparing patients across diverse populations for discharge.

Thoracic surgery and discharge education

A thoracic and cardiovascular surgery unit at a National Cancer Institute–designated comprehensive cancer center discharges 60 to 70 patients per month who have undergone lung resections or esophagectomies. Lung resections are performed to remove lung cancer or secondary metastasis to the lungs. The postoperative nursing care includes managing the chest tube, pulmonary hygiene, pain control, incision care, ambulation, and return of bowel function. Esophagectomies are complex surgeries performed to remove esophageal cancer and have the potential for serious postoperative complications. The required postoperative nursing care includes managing arterial lines, nasogastric tubes, chest tubes, jejunostomy tubes, urinary catheters, incision care, pulmonary hygiene, pain control, ambulation, enteral nutrition, and return of bowel function.

The interprofessional workgroup of thoracic surgery nurses, advanced practice providers, thoracic surgeons, clinical nurse leaders, and a dietitian identified an opportunity to develop population-specific video-based discharge education. Our goal was to streamline diverse interprofessional team content that had previously been offered at the bedside or in a classroom setting using printed materials and demonstrating care techniques. We wanted to improve patient satisfaction, enhance patients' ability and confidence to care for themselves at home, and standardize education to ensure that each patient is getting the same information. Our team aimed to discover whether using video and internet technology to deliver discharge education can enhance patients' ability to care for themselves at home and improve patient satisfaction.

Applying technology to enhance patient education

The improvement process began in April 2015 when the interprofessional workgroup from the thoracic surgery

unit submitted an application for internal funding to develop the discharge education video. We estimated that 780 patients per year would access the videos. The administration provided over $18,000 to cover the costs of video recording, project management, and editing.

Nursing staff wrote the scripts for the lung resection and esophagectomy discharge videos in collaboration with thoracic surgeons and advanced practice nurses. The lung resection discharge video includes:

- education on incentive spirometry
- ambulation
- arm exercises
- weight restrictions
- incision care
- diet
- pain management
- infection prevention
- bowel management
- when to obtain further treatment.

The esophagectomy discharge video includes:
- education on incentive spirometry
- ambulation
- weight restrictions
- activities to avoid
- incision care
- enteral feeding
- pain management
- infection prevention
- aspiration prevention
- bowel management
- when to obtain further treatment.

After the scripts were edited and reviewed by the patient education office for literacy level and ease of understanding, video production began, which included working with actual patients and clinicians to ensure authenticity and accuracy. (See *Lights, camera, action!*)

Video access

Patients access the discharge videos on postoperative day one from the patient education video library available on the televisions in their rooms. Patients also can view the videos through their electronic health record, which they can access with a smart device application called MyChart during and after hospitalization. Patients can securely log in to their MyChart account from their computer, smartphone, or tablet and view the follow-up discharge appointments and review the lung resection or esophagectomy discharge videos on demand. Nurses reinforce the videos with written materials, return demonstration, and the teach-back method, which has been shown to reduce readmission rates.

Project outcomes

Outcome measures for this initiative were tracked using the Press Ganey Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction survey. (See *Top box scores.*) HCAHPS scores are reported in aggregate, so patient satisfaction on the unit

Lights, camera, action!

The interprofessional workgroup collaborated with the organization's filmmakers to produce the discharge videos. Inpatient thoracic surgery nurses partnered with outpatient nurses and surgeons to identify volunteer surgery patients and staff to be filmed. All patients who participated in the videos signed media release forms.

We used actual patients to add authenticity to the videos. In patients' homes, we recorded their incisions and management of the surgical sites. Nurses served as narrators and demonstrated incision care.

After editing, key stakeholders—nurses, nurse practitioners, surgeons, and patients—reviewed and approved the videos before their release.

Nurses and clinical nurse leaders ensure that every thoracic surgery patient views the video relevant to their situation.

includes many surgery types, not just esophagectomy and lung resection. Because of this, consistency of results varied according to the monthly percentage of thoracic surgery patients cared for on the unit versus other types of nonthoracic surgery patients. Patient satisfaction scores suggest a marked increase with higher volumes of thoracic surgery patients and a decrease with lower volumes. This may reflect more patients responding to the survey who aren't eligible for the discharge videos. This outcome suggests the need for standardized discharge instructions for patients from other services, such as thoracic medical oncology and general internal medicine.

Pros and cons

Technology-driven patient education offers many advantages, including increasing accessibility to information when it's convenient for the patient. Having control over access to health information can improve patient satisfaction, as demonstrated in this project, and decrease anxiety. In our organization, web-based educational videos have streamlined patient education, making the information and teaching consistent for each patient. And rather than receiving the education just one time while still in the hospital and confronting other distractions, patients can view the videos as needed to improve their comprehension of key points.

Technology-based education also can present challenges. Some patients have limited access to the technology necessary to view the videos, others might not understand how the technology works, and some might be uncomfortable or unwilling to use it. Another challenge is making the videos available in validated translations so they're accessible to those for whom English isn't a primary language. In our project, the videos were created in English for pilot purposes. Additional funding is necessary to produce the videos in other languages.

Translation to other settings

In a culture that focuses on patient safety and satisfac-

Top box scores

The average top box score for the Press Ganey Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction survey related to thoracic surgery discharge information for the 6 months before the video release was 90.1%, with an average rank of 74. After the lung resection discharge video was released in October 2016, the 6-month average top box score improved to 94.1%, with an average rank of 94.5. These results have been sustained in 2018 with an average top box score (January 2018 through May 2018) of 95.9%, and an average rank of 94.2. In May and June 2017, the percentage of thoracic surgery patients was lower, which is reflected in lower HCAHPS scores.

Top box scores for discharge
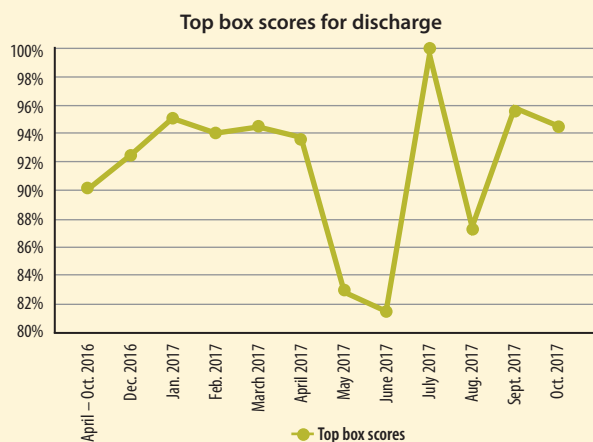
tion, standardized discharge teaching reduces variation and ensures that patients receive accurate information to successfully care for themselves after discharge. Our initiative is translatable across patient populations and healthcare delivery settings.

If you'd like to implement a similar program at your organization, you'll need to obtain funding to develop the educational content, work with interprofessional stakeholders (including patients), and assess individual patients to determine access to and comfort with technology platforms and devices.

Practice implications

Using video and internet technology to enhance discharge education has demonstrated improvements in patient satisfaction scores. Expanding use of this technology to other patient populations that our unit cares for may further increase patient safety and satisfaction. Future initiatives will explore the relationship between standardized discharge teaching with video and internet technology and readmission rates. Standardizing patient education content is essential for establishing a culture of high reliability and patient safety. ★

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