

# Access!!! Online, Anywhere, Anytime: Implementation and Utilization of Online Interactive Education During Pre-Admission Testing Visits for Total Joint Replacement Patients

Angela Daye, RN, BSN, MHA, CNML; Tonda Gosnell, MHA; Eva Hyde, MSN, RN, ONC, CNS;  
Barbara Morris, RN-BC ; Darcy Parizek, BSN, MA ; Cynthia Rizzo, BSN, RN, MBA;  
Michelle Savage, BSN, RN; Terri Sharpe, BSN, RN, MHA, CNOR;  
Allison Sinkule, BSN, RN, NE-BC I; Nicole Small BSN, RN, CNOR, RNFA;  
Norine Tamborino, BSN, RN

## 1 Objectives

- Describe strategies used to implement an evidence-based interactive online (web-based) patient education program initiated during the pre-admission testing visit (PAT) for elective Total Hip and Total Knee Replacement patients
- Explain outcomes resulting from this interactive online (web-based) patient education strategy, including patient/viewer satisfaction and on-line education program utilization

## 2 Background/Significance

In the United States, nearly 250,000 people become functionally disabled due to arthritis, increasing the need for total joint replacement (TJR) surgery. Literature shows that patient/family involvement during the pre-operative education process can improve patient outcomes.<sup>2</sup> The use of web-based programs is an innovative method for delivering effective preoperative education and has potential to provide sufficient information to patients/families about elective surgery at their convenience.<sup>5</sup> The orthopedic team at this healthcare facility evaluated the current state of the TJR pre-operative education program. The current state included face-to-face classes, which did not capture the audience of TJR patients who were unable to attend. These patients only received a copy of the educational booklet via mail delivery or PAT visit. To address this program deficiency, the team investigated the possibility of providing an online (web-based) interactive educational option for these patients.

## 3 Purpose

The purpose of this project is to implement an innovative online educational strategy to improve patient/family access to pre-operative education, as well as satisfaction with the education they receive.

## 4 Methodology/Procedure

The orthopedic team searched the literature for online resources to improve pre-operative education access for TJR patients. During this time, the health-care system acquired an interactive on-line (web-based) patient education program. The team collaborated with the program coordinator. An overview and demo of the program was presented to the team, followed by team access to the interactive videos. A team decision was made to utilize the interactive web-based videos, initiating the process during the patient's PAT visit. The implementation process included:

- Staff/Physician education and buy-in of the on-line web-based program
- Development of process for issuing patient access to the on-line videos
- Designating space and computer access in the PAT departments
- Loading the videos on designated computers
- Developing patient instruction handouts

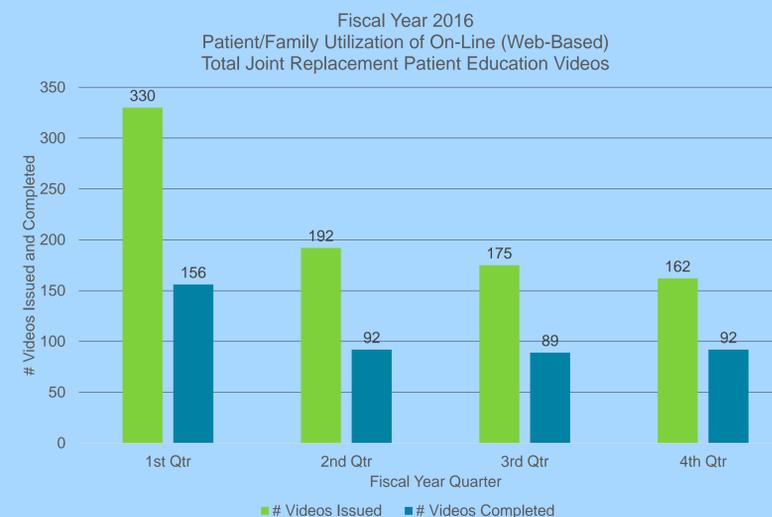
Implementation dates were established and the project was launched in September 2015. Data was collected over a 12 month period from October 2015 through September 2016. Outcomes were based on patient/viewer satisfaction with and utilization of the on-line (web-based) interactive video education programs.

**Setting and Sample:** The project was conducted in three PAT departments within a healthcare system in the southeastern U.S. focusing on elective Total Hip and Total Knee Replacement patients.

## 5 Results/Outcomes

### On-line Video Program Utilization

The volume of on-line (web-based) interactive videos issued during the pre-admission testing visit over the 12 month period (4 quarters of fiscal year 2016) was 859. Of the 859 videos issued, 429 videos (50%) were completed pre-operatively prior to the patients' hospitalization.



### Patient/Viewer Satisfaction with On-line Video Programs

Satisfaction with the on-line (web-based) interactive videos was based on patient/viewer response to video program survey questions. Survey questions focused on patient/viewer perception of their knowledge acquisition and preparedness for the surgical procedure following completion of the on-line education.

Satisfaction Survey Questions	% of Respondents that Answered "Yes"
1. Did the program answer questions you would normally call to discuss with your healthcare provider?	96%
2. How well did the program prepare you for the procedure? (% of respondents who answered Prepared or Very Well Prepared)	83%

Patients/Viewers who completed the satisfaction survey also indicated where they watched the video program, with 88% of respondents indicating that they watched the program within the comfort of their own home.

### Patient/Viewer Survey Comments:

"Thorough and informative. The voice is very good for this video. Easy navigation backward and forward. Additional information was very helpful."  
 "It was very informative. And presented in a way that anyone could understand."  
 "Understand more of what will be going on and risk."  
 "Very comprehensive. Easy to understand and not too long."  
 "Very informational and reduces stress about what to expect."

## 6 Discussion/Conclusion

This evidence-based project has been successful, demonstrating several positive patient outcomes. There has been a notable increase in the volume of TJR patients reached through the use of these interactive on-line (web-based) videos for pre-operative education. Providing this additional educational option to patients/families during their PAT visit increased educational access for patients and families. A major advantage of this program is the patient's/family's ability to easily access and view the on-line videos anywhere and anytime, whether within the confines of their home, at work, the PAT Center, library or other location of their choice. Satisfaction with the videos is evident through positive patient/viewer feedback from the satisfaction surveys. It has also proven to be an additional resource for patients who attend the class and an alternative option in the event of class cancellations.

## 7 Implications

Using this technology-based educational intervention has potential to promote patient participation in their own plan of care, as well facilitate their own post-operative recovery. This innovative educational process can also be utilized in other healthcare settings. Expanding this option across the care continuum can help to improve patient outcomes, patient satisfaction and the overall patient experience. It could also prove to be a cost-effective strategy for optimizing quality patient education outcomes.

## 8 References

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