

Design and Implementation of a Neurological Surgery Perioperative Culture of Safety Video

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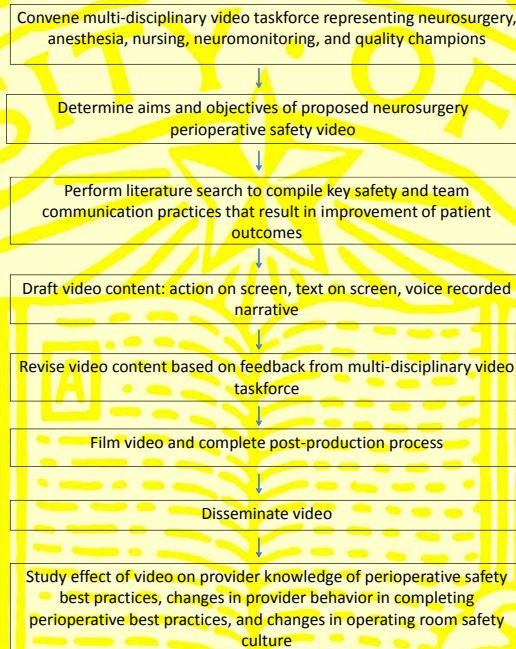
Background

- Surgical and medical errors result from failures in communication, handoffs, and lack of standardization in clinical protocols and safety practices.
- Checklists, simulation training, and teamwork training have been shown to decrease adverse patient events and increase the safety culture of surgical teams.
- It is unknown if perioperative teamwork and checklist training via an educational video will decrease adverse events and increase safety culture of surgical teams.

Goals & Objectives

- The goal of this project is to simplify and standardize perioperative patient safety practices and team communication processes within operative neurosurgery through the creation of an educational safety video targeted at a neurosurgical provider audience.
- A multi-disciplinary task force consisting of neurosurgery attendings and residents, operating room nurses and managers, anesthesiologists, neuromonitoring specialists, and quality improvement champions determined that the objectives of the video would be to :
 - Minimize errors and improve patient outcomes by simplifying and standardizing neurological perioperative patient safety practices and team communication processes.
 - Highlight critical patient safety checks, precautions, and team communication practices (e.g. timeout, debriefs).
 - Foster a culture of patient safety and promote improved communication within the perioperative settings.

Design Methods & Implementation Plan



Performance Data

- We are currently studying the effect of the neurosurgery perioperative safety video on providers' knowledge of standard neurosurgical perioperative safety practices in addition to the effect of the video on provider safety attitudes and safety culture through the use of a pre- and post-test survey tool.
- The video's effect on changes in safety culture and provider safety attitude change will be assessed by questions from the Safety Attitudes Questionnaire (SAQ) for the OR, a previously validated survey tool to assess safety culture awareness in the OR.
- Lastly, we are studying the effect of the video on the completion and quality of completion of pre-determined elements of the pre-operative timeout and post-operative debrief that are described in detail within the video.
- Preliminary data show that the completion of the pre-operative timeout remains 100% pre- and post-video rollout.
- The completion of the post-operative debriefing increased from 0% to 55% following video rollout.

Conclusions & Further Study

- It is Department of Neurological Surgery policy that all attendings, residents, students, and visitors must watch the video on a quarterly and then biannual basis in order to participate in the operating room.
- We have also partnered with the Departments of Nursing, Anesthesia, and Perioperative Services to ensure that non-neurosurgeon providers also view the video on at least an annual basis.
- The effect of the perioperative safety video in changing provider knowledge, behavior, and safety culture remains to be determined.
- We recognize that provider behavior and safety culture change likely cannot happen with a perioperative safety video alone. This video is a part of a larger Quality and Safety improvement program in the Department of Neurological Surgery.
- The neurosurgery perioperative safety video can be a national model for how other institutions can educate their multi-disciplinary perioperative patient care teams to ensure that critical safety steps are taken for every neurosurgical patient.

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