

Impact of the Time-Out Process on Safety Attitude in a Tertiary Neurosurgical Department

Nancy McLaughlin¹, Deborah Winograd², Hallie R. Chung², Barbara Van de Wiele³, Neil A. Martin¹

■ **OBJECTIVE:** In July 2011, the UCLA Health System released its current time-out process protocol used across the Health System. Numerous interventions were performed to improve checklist completion and time-out process observance. This study assessed the impact of the current protocol for the time-out on healthcare providers' safety attitude and operating room safety climate.

■ **METHODS:** All members involved in neurosurgical procedures in the main operating room of the Ronald Reagan UCLA Medical Center were asked to anonymously complete an online survey on their overall perception of the time-out process.

■ **RESULTS:** The survey was completed by 93 of 128 members of the surgical team. Overall, 98.9% felt that performing a pre-incision time-out improves patient safety. The majority of respondents (97.8%) felt that the team member introductions helped to promote a team spirit during the case. In addition, 93.5% felt that performing a time-out helped to ensure all team members were comfortable to voice safety concerns throughout the case. All respondents felt that the attending surgeon should be present during the time-out and 76.3% felt that he/she should lead the time-out. Unanimously, it was felt that the review of anticipated critical elements by the attending surgeon was helpful to respondents' role during the case. Responses revealed that although the time-out brings the team together physically, it does not necessarily reinforce teamwork.

■ **CONCLUSION:** The time-out process favorably impacted team members' safety attitudes and perception as well as

overall safety climate in neurosurgical ORs. Survey responses identified leadership training and teamwork training as two avenues for future improvement.

INTRODUCTION

Following the development of the World Health Organization Safe Surgery Saves Lives Checklist (21, 46, 47), numerous hospitals across the globe have adopted the use of surgical checklists to improve patient safety (16, 36, 37, 41, 42). Realizing the opportunities for patient care improvement, UCLA developed the first extended UCLA Health System surgical safety checklist in 2008. The checklist's elements are reviewed and the operative plan is discussed during the time-out, a moment when all team members pause and gather around the patient as a cohesive team. Over the years, much effort has been taken to standardize the time-out process to ensure accuracy and optimal effectiveness throughout the UCLA Health System. Additionally, numerous interventions have been performed to improve the completion of the checklist and the observance of the time-out process, the goal being improvement of individuals' safety attitude and overall operating theater safety climate to ultimately provide safer surgery.

In July 2011, the UCLA Health System released its most current version of the time-out process for use across the health system. This latest version included 1) team member introductions, 2) safety statement by the time-out leader, 3) addition of two supplemental items to the institutional checklist (review of critical imaging and use of laser [if it applied]), and 4) pre-incision Surgical Care Improvement Project measures (23).

Key words

- Leadership
- Neurosurgery
- Safety attitude
- Teamwork
- Time-out

Abbreviations and Acronyms

- OR: Operating room
RN: Registered nurse
SAQ: Safety Attitudes Questionnaire



From the ¹Department of Neurosurgery, David Geffen School of Medicine, ²Department of Quality Management, Ronald Reagan UCLA Medical Center and Santa Monica UCLA Medical Center & Orthopedic Hospital, and ³Department of Anesthesiology, David Geffen School of Medicine, University of California, Los Angeles, California, USA

To whom correspondence should be addressed: Neil A. Martin, M.D.
[E-mail: neilmartin@mednet.ucla.edu]

Citation: *World Neurosurg.* (2014) 82, 5:567-574.
<http://dx.doi.org/10.1016/j.wneu.2013.07.074>

Journal homepage: www.WORLDNEUROSURGERY.org

Available online: www.sciencedirect.com

1878-8750/\$ - see front matter © 2014 Elsevier Inc. All rights reserved.

Measuring the impact of change is a fundamental concept of effective management, leading to quality improvement. Given that wrong surgery, wrong surgical side, and wrong surgical site have not occurred in the department of neurosurgery at UCLA at least within the last 10 years, these outcome measures were not deemed appropriate. Although the measurement of clinical outcomes such as mortality and morbidity has often been a gauge of patient's safety within a hospital, recent literature has stressed the importance of assessing the safety attitudes of healthcare providers and overall safety climate of a clinical area (17, 25, 45). To date, no data have been published on safety attitudes and safety climate specifically in the field of neurosurgery.

In order to assess the impact of the most current version of the time-out process on individual's safety attitude and overall safety climate, we surveyed all members of the surgical team involved in neurosurgical procedures in the main operating room (OR) of the Ronald Reagan UCLA Medical Center. The survey aimed at assessing team members' attitudes regarding improved safety as a result of the pre-incision time-out process. Survey results and avenues for improvement in the time-out process in neurosurgery are discussed.

METHODS

The current survey was designed to evaluate the impact of the most current protocol for the time-out process on the safety attitudes of surgical team members and overall safety climate that prevails during neurosurgical procedures in the main ORs. The questionnaire survey is an important approach, complementing observational and interview studies, that enables examination of the attitudes and culture in a work environment. According to the policy activities that constitute research at the University of California, Los Angeles (UCLA), this work met criteria for operational improvement activities and did not require review from our institutional review board. The Agency for Healthcare Research and Quality, the primary federal source for healthcare quality and safety promotion, has supported the development of numerous tools to evaluate patient safety, most notably the Hospital Survey on Patient Safety Culture (5, 8, 18, 33, 43) and the Safety Attitudes Questionnaire (SAQ) (8, 24, 27, 28, 32). The Hospital Survey on Patient Safety Culture was designed to "assess staff views on patient safety culture in hospital settings." The SAQ assesses not only safety climate but also five other factors, namely, teamwork climate, perceptions of management, job satisfaction, working conditions, and stress recognition. Therefore, items included in these surveys cover multiple attitudinal domains. We formulated the items of our survey in light of the phraseology of the above questionnaires. Modifications were however necessary to measure specific safety attitudes of our neurosurgical ORs. Our survey contained nine multiple-choice questions that were asked in the order shown (Figure 1). Similar to the SAQ survey, our survey allowed an area for comments after each question. The survey was conducted electronically and responses were anonymous. In order for submission to be accepted, a response was required for each question. Seven of the nine questions were answered using a 4-point scale including "strongly disagree," "disagree," "agree," or "strongly agree" without an option for "other" or "not applicable" (Figure 1). It was felt that this structure would solicit the most honest response that could be

tabulated. By providing an area for comments, we feared that "other" would often be selected when comments were provided, thereby preventing quantifiable, aggregate results.

Although questions asked were uniform for all disciplines of the OR team, a separate survey was sent to each discipline (neurosurgery attendings and neurosurgery residents, anesthesia attendings, anesthesia residents, circulating registered nurses [RNs], scrub technicians, and neuromonitoring technicians). The purpose of separating the survey for distribution was to address each group individually. The individual disciplines were not advised that the other disciplines would be surveyed. The survey was distributed via an email sent by the discipline's leadership (Neurosurgery Department Chair sent to neurosurgery attendings and neurosurgery residents, Neuro-Anesthesia Service Chief sent to anesthesia attendings and anesthesia residents, OR nurse manager sent to OR nurses and scrub technicians, and neuromonitoring technician manager sent to neuromonitoring technicians). The email contained the following instructions for survey completion:

We are currently assessing **time-out practice in neurosurgical cases**. Below is a link to a short survey conducted by the hospital's Quality Department in partnership with the Department of Neurosurgery to assess and improve safety in the operating room. Completion of this survey takes approximately 5 minutes and all responses are completely anonymous. While participation is not required, your honest responses to the questions would be greatly appreciated. We also ask that you add any comments that you have in the space provided. Responses are anonymous.

If you have any questions or would like more information about this project please contact me.

Thank you,

(Neurosurgery Department Chair or Neuro-Anesthesia Chief, etc.)

Statistical Analysis

The Fisher exact test was used to determine if the difference regarding all responses between various survey groups was statistically significant ($P < 0.05$).

RESULTS

Overall Results

Ninety-three of the 128 members of the surgical team including neurosurgical residents/fellows, neurosurgeons, anesthesia residents, anesthesiologists, OR RNs, scrub technicians, and neuromonitoring technicians completed the survey, which represents almost 80% survey response. Overall, 98.9% of respondents felt that performing a time-out prior to procedure start (incision) improves patient safety (Figure 1). The majority of respondents (97.8%) felt that the team member introductions helped to promote a team mentality during the case. In addition, 93.5% of respondents felt that performing a time-out helped to ensure all

Download English Version:

<https://daneshyari.com/en/article/3095276>

Download Persian Version:

<https://daneshyari.com/article/3095276>

[Daneshyari.com](https://daneshyari.com)