

A glimpse into neurosurgical risk prevention and the surgical checklist

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The November issue of *Neurosurgical Focus* is dedicated to lessening the number and severity of adverse events surrounding neurosurgical intervention for a variety of disorders. Guest editors Alexander Khalessi (University of California, San Diego), James Forrest Calland (University of Virginia), Gabriel Zada (University of Southern California), and Michael Y. Wang (University of Miami Health System) selected 16 articles on systems-based quality improvement for neurosurgical procedures.

The articles are divided into four major subtopics: efforts to improve preoperative, intraoperative, and postoperative processes; data validating those efforts in individual institutions; clinical issues and environments particular to neurosurgery as a whole; and issues specific to subspecialty surgeries. Contributions are made by authors from the United States, Germany, Italy, Taiwan, and the United Kingdom.

The first article in the collection sets up the general problem of [adverse events](#) and poses strategies for how to deal with them. Judith Wong and colleagues reviewed the patterns and frequencies of neurosurgery-related adverse events. They found six categories related to adverse events: surgical technique; perioperative [medical management](#); protocol adherence; preoperative optimization; technology; and communication. On the basis of their review, these authors make five recommendations: a national registry for outcome data and monitoring; standardization of specialized equipment; more widespread subspecialization and regionalization of care; establishment of evidence-based guidelines and

protocols; and adoption of the [World Health Organization Surgical Safety Checklist](#) within the neurosurgical operating room.

Immediately following this article are a review of neurosurgical checklists, descriptions of the development and use of surgical time-out checklists and safety videos at individual institutions, a discussion of surgical debriefing, and a description of an aviation-based model for incident reporting and investigation.

Additional articles address surgery-related infections and safety issues related to neurophysiological monitoring and intraoperative imaging, and others discuss adverse events specific to shunt surgeries, endovascular procedures, open cerebrovascular operations, and intracranial neoplasm surgeries.

Accompanying the November issue of *Neurosurgical Focus* is an informative and animated podcast interview on neurosurgical risk prevention, in which Dr. Calland speaks with Dr. Atul Gawande, author of The New York Times bestseller, *The Checklist Manifesto*, and numerous articles and books on medical error and patient safety as well as coauthor of five articles in this issue.

More information: *Neurosurgical Focus*, Volume 33, Number 5, published online November 1, 2012 online: thejns.org/toc/foc/33/5

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