

# Brain Health Initiative: A New ASA

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Ad Hoc Committee on Brain Health Initiative

## Anesthesiology has both claimed and been lauded for being the specialty that first focused on the issue of patient safety,

years before the Institute of Medicine (now the National Academy of Medicine) report *To Err Is Human* was issued in 1999. In the second half of the 20th century, our leaders recognized that we placed our patients at risk through our own actions, and that developing systems of care, including checklists, could lead to lower risk and better outcome. In fact, the Institute of Medicine report and others claimed that anesthetic-related morbidity and mortality improved to the point that anesthesia was safe. While our specialty did lead other specialties in efforts to improve patient safety, many other specialties have refocused their efforts, including on reducing complications using wider definitions for areas in which they are accountable. Importantly, surgical patients continued to have high rates of morbidity and mortality, and work over the past several decades has made it clear that actions taken by anesthesiologists can improve perioperative outcomes, particularly when we expand the definition of anesthesia-related complications to include joint accountability for all surgical outcomes. As a means of focusing our attention on an area in which our leadership can result in improved patient outcome, ASA President Daniel Cole, M.D., proposed a new patient safety initiative – the Brain Health Initiative.



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As physician anesthesiologists, we are well aware of the important concerns of patients and their families in that they or their parents or grandparents are frequently “not the same” from a neurologic or psychologic standpoint, either immediately or for prolonged periods after surgery. These changes can be as acute as postoperative delirium, to more subtle cognitive changes. As outlined in the accompanying article by Drs. Berger and Eckenhoff, the diagnosis and definition of postoperative cognitive dysfunction are being evaluated by a multidisciplinary group and will likely be changed or clarified in the near future. Importantly, the causes of neuropsychiatric changes in the immediate and long-term period after surgery may be multi-factorial and include anesthesia, surgery or simply the natural course of disease. However, there are clearly drugs that should not be given to the elderly because of their association with delirium, as discussed in the accompanying article by Dr. Deiner and Dr. Humeidan. Administration of some of these offending

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agents is under the direct control of anesthesiologists, while others may require anesthesia departments to take ownership of pre- and postoperative order sets to ensure that they are used with caution in the postoperative period. Another key question is whether patients and their families are aware of the risk of postoperative cognitive changes as part of their decision process to undergo surgery. As the concept of shared decision-making takes greater importance, understanding all of the risks is important in the consent process. Finally, patients may be discharged home as signs and symptoms of delirium or cognitive changes are just beginning to present. Informing the patient or his or her family of the signs and

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symptoms that may manifest themselves at home (or even in the hospital) is critical in helping them develop plans for proper care and observation in the home setting. This is particularly important in those who are most vulnerable, the elderly, since they may not have support or infrastructure to ensure they are safe in the postoperative period.

Given this clear safety issue, anesthesiologists have an opportunity to lead in improving safety in an area that may not be “directly attributable to anesthesia” but for which we can seriously impact on outcome. Importantly, multiple

groups and societies are interested in the issue of postoperative delirium, such as the American College of Surgeons (ACS) and American Geriatrics Society (AGS). In fact, the AGS released its Clinical Practice Guideline for Postoperative Delirium in Older Adults, which was developed by a multidisciplinary group and funded by the Hartford Foundation. However, implementation of guidelines is usually slow and many patients may remain at risk. The goal of the Brain Health Initiative is to be a leader and convener of the multiple stakeholders who can create a toolbox to accelerate that implementation of current strategies which have been associated with a reduction in postoperative delirium, including the reduction or elimination of the administration of drugs known to increase the risk. We also hope to develop both patient and provider material to help recognize signs and symptoms of delirium and changes in cognitive function after surgery. The hope is that this material will be used to better inform patients about risks and help families and other providers ensure there are optimal safeguards available after discharge from the hospital.

There is a great deal still unknown about the pathogenesis and best strategies to prevent or treat neurocognitive and psychiatric changes surrounding surgery. It will be important to advocate for more research in this area, and part of the Brain Health Initiative will focus on the goal of obtaining more research into this area – one in which anesthesiologists are among the leaders.

Task forces are currently working on developing tools for this initiative. ASA plans to convene a panel this fall to discuss strategies to address perioperative brain health. Groups as diverse as the ACS, AGS, Veterans Administration, American Hospital Association and AARP are all interested in participating. As a specialty that led the patient safety movement, it is important that we keep evaluating the needs of our patients and lead in any area in which we can make a difference.