

# Improved Screening for Post-op Delirium Holds Promise

Marcus A. Banks

September 27, 2022

A new screening method could help identify older people at increased risk for delirium after surgery, a significant and even life-shortening complication in this population.

Older adults face delirium after surgery more than younger people, causing them distress and potentially hastening their death.

Better screening of patients most likely to experience the condition is needed, according to researchers at the University of California San Francisco (UCSF), who describe their new approach in the *Journal of the American Geriatrics Society*.



Dr Odmara Barreto Chang

Odmara Barreto Chang, MD, PhD, an anesthesiologist at UCSF, said the specialty generally does a "pretty good workup" of surgery patients — with one major omission.

"If you have any heart conditions before you go into surgery, we send you to the cardiologist; we do the same thing for your other organs, but we don't do a brain assessment, we don't talk about your brain," Barreto Chang said.

A more accurate assessment of a patient's cognitive impairment prior to surgery could change practice patterns, according to Barreto Chang. She might counsel patients to forego elective surgeries if they have an elevated delirium risk, she said, or forego certain medications such as benzodiazepines before surgery, which are known to increase the risk of delirium.

Older adults may also have preexisting cognitive challenges or other health conditions such as diabetes or sleep disturbances that increase their risk of postoperative delirium, according to Jan Busby-Whitehead, MD, director of the Center for Aging and Health at the University of North Carolina School of Medicine in Chapel Hill.

---

## A New Screening Approach

The study included 152 people (46% women) aged 65 years or older who underwent spine surgery at UCSF.

Prior to surgery, participants used a computer tablet to complete the TabCAT Brain Health Assessment, a brief test developed at UCSF. The assessment measures spatial skills, the ability to generate words, and how well patients match and recall objects.

The test showed that 58 patients (38%) had cognitive difficulties before their surgery. After the procedure, 22 of those in this group showed evidence of delirium on a validated scale.

Among the 94 patients (62%) who exhibited no cognitive difficulties before surgery, only 17 (18%) experienced postoperative delirium. Barreto Chang and her colleagues report that baseline cognitive impairment, as measured on the tablet test, independently predicted increased risk of postoperative delirium (odds ratio [OR], 2.45; 95% CI, 1.05 - 5.67;  $P = .037$ ).

Clinicians can use nonmedical methods to reduce delirium, such as making sure that older patients have immediate access to their eyeglasses or hearing aids after surgery, Busby-Whitehead said. Opening the blinds during the day so that a patient's sense of time is not impaired, and making sure patients walk as much as possible, also can be helpful.

"Those seem fairly simple," she said, "but they are nondrug options for trying to prevent and mitigate the problems with delirium."