connectedness to different stimuli may be manipulated. This may include spinal anesthesia to negate the pain of peripheral surgery. Of course, this may be insufficient as, of the multiple causes for distress under anesthesia, pain is not the commonest. Similarly, we have proposed that reinforcement of a "thalamic" gate may be helpful, but because activation of the cortex is common during surgery, we propose that targeting connectedness at a cortical level (perhaps a final pathway for all stimuli) may prove the most beneficial. We also agree that if a signal enters the central nervous system, this may leave a trace, as discussed in many studies of implicit learning. We do not define this as connectedness (unless there is a change in the subject's conscious experience), but acknowledge that this remains an important area of research and are grateful for Dr. Pinsker for highlighting this.

Robert D. Sanders, B.Sc., M.B.B.S., F.R.C.A.,* Giulio Tononi, M.D., Steven Laureys, M.D., Ph.D., Jamie Sleigh, M.B.Ch.B., F.R.C.A., Dip. App. Stat., M.D. *Imperial College London, London, United Kingdom. robert.sanders@imperial.ac.uk

References

Use of Risperidone in Cardiac Surgery Patients with Subsyndromal Delirium

To the Editor:
We read with great interest the recent study by Hakim et al., which presented data suggesting that the use of risperidone in cardiac surgery patients with symptoms of subsyndromal delirium may prevent the progression to delirium. We believe additional information is necessary to interpret the clinical significance of their observations.

Screenings for subsyndromal delirium occurred every 8 h in the intensive care unit, with the initial screening 4 h after extubation. The timing of development of subsyndromal delirium is important, as symptoms developing shortly after extubation may be because of residual anesthetics (particularly benzodiazepines and narcotics used in the operating room), and treatment with antipsychotic agents at this point may not have been prudent. Indeed, this point is particularly important with the observation that neither intensive care unit length of stay, nor the duration of clinical delirium, was significantly shortened in the risperidone group. It would also be helpful to know if the intensive care unit and ward in which the study was conducted already practiced risk-factor management techniques shown to decrease delirium incidence in hospitalized elderly patients.

Although prevention of postoperative delirium may be important, it is also important to distinguish between symptoms directly related to residual anesthetics that would improve on their own, and those that require antipsychotic therapy.

Jesse M. Raiten, M.D.,* Jacob T. Gutsche, M.D.
*Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania. j.raiten@gmail.com

References

In Reply:
I would like to thank Raiten and Gutsche for their thoughtful comments on our article.

Despite uncertainty on the clinical course of subsyndromal delirium (SSD), there is evidence that it may herald manifest delirium. Nevertheless, although SSD may be viewed as a penumbra between normal mentation and clinical delirium, the transition from a normal mental status to SSD may not be distinct temporally and is often missed clinically. Accordingly, we presumed that early identification and treatment of SSD might halt its progression to full-fledged delirium. In other words, targeted delirium prophylaxis was actually the main theme of our trial, which aimed at rationalizing pharmacological prophylaxis by offering it to those at assumedly particular risk for delirium. This approach stands in contradistinction to the conventional pharmacological approach to prophylaxis, which counts on the arbitrary commencement of antipsychotic prophylaxis just before or shortly after surgery. In this respect, we believe that a fundamental implication for targeted prophylaxis is that administration of antipsychotics should be commenced as early at the inception of SSD as possible. To achieve this, we started to screen our patients for SSD as soon as they were deemed eligible for assessment using our screening tool, the Intensive Care Delirium Screening Checklist. The time frame of 4 h after extubation, however, may not be regarded as premature in view of the prevailing practice of having the patients extubated within 12 h of surgery unless otherwise indicated, which is also the regular...