Commentary on "Uncovering Awareness: Medical and Ethical Challenges in Diagnosing and Treating the Minimally Conscious State"

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The techniques described in this article have revolutionized our thinking about braininjured patients who appear to be unconscious. It has been known for a few years that some of these patients are, in fact, "minimally conscious." The implications for patient care (analgesia, nutrition, communication) are enormous. Patients without consciousness do not benefit from attempts at communication or attempts to relieve discomfort, whereas many minimally conscious patients require such intervention. While we do not yet know how best to communicate with minimally conscious patients or have any evidence concerning their thinking and their emotions (Are they depressed? Would antidepressants help?), the techniques presented in the article promise solutions to these questions.

A caveat: The subjects of these studies have been almost exclusively head-injury patients, most of whom are young. What the situation is in the older patient who suffers unconsciousness from cardiac arrest or stroke remains to be discovered. Evidence from small observational cohort studies demonstrates that meaningful recovery (including outcomes significantly above severe disability) often occurs by 10 months after an injury in patients who are only minimally conscious three to four months after the injury. The potential for delayed recovery is not widely recognized, and that combines with the neuroimaging and electrophysiologic techniques discussed in the article to illustrate the need for significant changes in the evaluation of patients in ICU and other settings.

In addition, these results indicate that reassessment of patients in subacute and chronic care settings are warranted. At least two U.S. national panels have considered policy recommendations aimed at providing a structure for identifying patients who may recover but whose potential to do so might not be recognized. An Institute of Medicine exploratory meeting examined the need for a systematic study to address research in the area of disorders of consciousness and policy changes that may be required to advance the care of patients in light of evolving knowledge. A report to Congress by an interdisciplinary group of clinicians and researchers focused on developing joint research and clinical initiatives to establish standards of care for ongoing treatment and evaluation of patients with disorders of consciousness. Unfortunately, no systematic policy effort has been initiated to address this rapidly changing landscape and make adequate neurological assessment available to this vulnerable population.

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References

- 1. J. T. Giacino and K. Kalmar, "The Vegetative and Minimally Conscious States: A Comparison of Clinical Features and Functional Outcome," *Journal of Head Trauma Rehabilitation* 12 (1997): 36–51.
- 2. M. H. Lammi et al., "The Minimally Conscious State and Recovery Potential: A Follow-up Study 2 to 5 Years After Traumatic Brain Injury," *Archives of Physical Medicine and Rehabilitation* 86 (2005): 746–754.
- 3. J. J. Fins, N. D. Schiff, and K. M. Foley, "Late Recovery From the Minimally Conscious State: Ethical and Policy Implications," *Neurology* 68, no. 4 (2007): 304–307.
- 4. J. Berube, J. J. Fins, J. T. Giacino, D. Katz, J. Langois, J. Whyte, and G. Zitnay, "The Mohonk Report: A Report to Congress on Disorders of Consciousness: Assessment, Treatment, and Research Needs" (Charlottesville, VA: National Brain Injury Research, Treatment, and Training Foundation, 2006), http://www.northeastcenter.com/the-mohonk-report-disorders-of-consciousness-assessment-treatment-research-needs.pdf.