Translating the science of disorders of consciousness into ethical clinical practice

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One of the most pressing clinical and ethical issues in the context of Disorders of Consciousness (DOC; e.g., Vegetative State, Minimally Conscious State) is the determination of whether a patient has recovered consciousness and has the potential for meaningful neurological recovery. Yet, while these two factors are key to early decisions to withdraw life supporting therapies, assessing either remains a persistent challenge.

In the last 6 years, new international guidelines for the management of DOC patients have recognized the use of advanced imaging and electrophysiology techniques (AIEs; e.g., MRI, EEG) to assess whether a patient is conscious. While this is a recognition of 25 years of clinical science, and of an agenda of promoting evidence-based competency in the management of these patients, there exists no framework for clinicians to balance the many risks and benefits of employing AIE assessments. This issue is all the more urgent considering that (i) these techniques (and the related know-how) are scarcely available outside of a handful of advanced centers and can be very expensive, (ii) family members are increasingly aware of their existence, and (iii) pressure for their use is likely to increase in the context of clinical, legal, and ethical imperatives to meet standards of care.

In this presentation I will propose a framework for (1) deciding, on a case-by-case basis, when AIEs should be used and (2) understanding the evidentiary value of different AIEs vis-à-vis assessing whether a patient is conscious. This framework fills the vast gap created by the guidelines by providing a decision-making approach that can maximize the appropriate use of these technologies while minimizing risk exposure. Ultimately, delineating the space of ethical application of AIEs is a necessary step towards translating clinical science into routine clinical practice.