Teleneurology consultations for prognostication and brain death diagnosis

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Abstract-

The diagnosis of brain death and the determination of neurologic prognosis following cardiac arrest are important reasons for neurology consultation in the intensive care unit. In hospitals without access to neurology consultation, it may be challenging to address these important questions with high reliability in a timely manner. The American Academy of Neurology has established consensus criteria for diagnosis of brain death, which include (i) comatose state; (ii) presence of apnea; and (iii) absence of brainstem reflexes in the setting of a diagnosis of underlying brain injury compatible with brain death. It has recently been shown that virtual assessment of coma using standardized scales is feasible with good inter-rater reliability. The supervision of apnea testing and the neurologic examination of the brainstem by a remote neurologist are possible if conducted in conjunction with a well-trained and experienced bedside team. In this communication, we explore the essential clinical and legal framework that can support using virtual teleconsultations to address this complex topic.

Index Terms- telemedicine, telehealth, teleneurology, brain death diagnosis, legal/legislation

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