

Medical, Legal and Ethical Issues Surrounding Brain Death-The Physician's Perspective

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The Physician's Perspective

Consider this scenario. A-46-year-old lady suffers an out of hospital cardiac arrest. Cardiopulmonary resuscitation is initiated on the scene by a passerby and later by emergency medical services personnel and return of spontaneous circulation is documented in 30 minutes. After arrival in the hospital hypothermia protocol is instituted. Five days later she remains comatose and neurological examination is consistent with brain death. Orders are given for medication and ventilatory support to be withdrawn but family refuses saying that she is not dead as long as her heart is still beating. An ethics consultation with the family fails to change their beliefs about brain death leading to a standoff between family and the medical team. What are the clinician's medical, legal and ethical responsibilities in such cases, not just to the patient but also to the grieving family and the larger society?

Death may be defined as the end of life; the total and permanent cessation of all vital functions of an organism. But this simple definition of death is imbued with strongly held social, cultural and religious beliefs of the patient, the family and our society. Different religions view death and afterlife differently. Hinduism and Buddhism believe in the doctrine of reincarnation. Based on one's karma either one attains "nirvana" never to be born again and to be finally free of the death/rebirth cycle (*moksha*) or following death the "atma" (soul) inhabits a new "chola" (body). This is against the Christian held belief of either going to heaven or hell after death. So there exists religious objections to the diagnosis of brain death and in some religions death is thought to have occurred when the heart stops beating. This cardiac definition of death remains far simple to understand by the public at large as compared to brain death. It is readily accepted by family members allowing the process of mourning to begin on the departure of a loved one. Brain death on the other hand is not so readily accepted by family members. How can their loved one be dead when they can still feel, hear and see (on the cardiac monitor) a reassuring heart beat? Terms like apnea test positive, absent brainstem reflexes and flat electroencephalogram make little sense. How can the doctors be so sure that their daughter or son shall never regain consciousness again? Questions like these place a tremendous burden on the family when they are approached for permission to discontinue ventilation. The symbolism of a beating heart slowly flat lining on the cardiac monitor after discontinuation of ventilation is not lost on them.

From a medical and legal perspective brain death is now a well-defined entity. After brain death is confirmed, the law allows (and protects) physicians to discontinue medication and ventilatory support. In many states in the United States and in countries around the world, physicians are not mandated to consult the family prior to withdrawing ventilation though it is recommended that they should. So at least for clinicians there is now little to no ambiguity when it

comes to medical (brain death testing is standardized though there remains practice variability in brain death determination among different countries of the world or even among different academic centers in the same country) and legal issues surrounding brain death. Ethical issues surrounding brain death though continue to confront us. Confirmation of brain death makes it obligatory for clinicians to cease all treatment but what if the family refuses to accept the diagnosis. Should we refuse to treat further (after the entire patient is dead) or should we continue to treat the dead patient in deference to the family's wishes? What if we have another alive but critically ill patient who needs that intensive care bed or the ventilator? To whom we owe our greatest responsibility-the dead patient, the grieving family or the living critically ill patient who shall die if he does not get care? What to do when brain death is determined in a pregnant woman but whose fetus still has a heartbeat? [1] Do we cease treatment (after all the patient is dead) or do we continue to maintain ventilation in this dead patient until the fetus is viable outside the womb? We also have to contend with ethical issues surrounding harvesting of organs from a brain dead patient to extend the life of others. Again to whom we owe greater responsibility-the brain dead patient, the grieving family or the patient in desperate need of that organ?

There are no simple answers to the above questions. A clinician confronted with a family which refuses to accept the diagnosis of brain death should avoid a confrontation approach with the grieving family members. The diagnosis of brain death should be explained to the family by the physician in charge of the patient rather than other members of the medical team since different medical personnel may use different terms and analogies to explain brain death thus potentially sending mixed messages to the family. The discussion should ideally take place in a formal meeting with all concerned family members including the health care proxy rather than conveyed in a hurried bed-side meeting. Enough time should be given to allow family members to ask questions. The physician should attempt to answer all questions objectively taking care to avoid ambiguous terms and statements such as '*brain death is just like cardiac death*' and '*he is brain dead but we shall continue to dialyze him*' as these create confusion in the minds of the family. The family should be explained that medically there is no ambiguity about brain death. Statements like '*you cannot die twice; once when your brain stops and once when your heart stops*' or '*we only die once and death whether cardiac or brain is final*' may be helpful. The family should be given time to accept the diagnosis and also the option of getting a second opinion from another physician preferably one skilled in neurosciences (either a neurologist or a neurosurgeon). The physician should remain supportive and available to answer questions throughout the process.

Determination of brain death raises complex medical, legal and ethical dilemmas for clinicians highlighting the need for medical ethics education during residency training.

References

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