Dr. David Magnus on understanding brain death

February 6 2014, by Susan Ipaktchian

When is a person considered dead? Two recent cases have thrust the issue of "brain death" back into the national conversation. In Texas, the brain-dead Marlise Muñoz was connected to machines that kept her other vital organs functioning—over the objections of her family—in an attempt to "rescue" her fetus. Munoz was 14 weeks pregnant when she suffered a pulmonary embolism in late November.

And in December, the family of Jahi McMath went to court to prevent Oakland Children's Hospital from discontinuing mechanical ventilation for the 13-year-old girl after she was declared brain dead following a tonsillectomy surgery. The girl has since been transferred to another facility. The two cases have prompted discussions about how much weight should be given to a family's wishes in deciding whether to withdraw life support.

David Magnus, PhD, director of the Stanford Center for Bioethics and the Thomas A. Raffin Professor in Medicine and Biomedical Ethics, co-wrote a perspective piece on the topic that was published online Feb. 5 in the *New England Journal of Medicine*. In it, he and his co-authors say that giving family members the right to determine death would "threaten to undermine decades of law, medicine and ethics." They also say it could complicate organ donations from cadavers.

Writer Susan Ipaktchian asked Magnus to explain why he believes that the laws and ethics governing brain death should not be changed.

Q: What is "brain death," and how did the concept arise?

Magnus: Brain death is the complete and permanent loss of all of the major integrative functions of the brain, including the cerebral cortex and the brain stem. With the development of mechanical ventilation, the old understanding of the meaning of death as irreversible cessation of circulatory and respiratory function came to be questioned. In 1968, an ad hoc committee at Harvard recommended that patients who have lost brain function should be considered dead. In 1981, the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research provided a definition that helped explain why brain death is death—the loss of the key functions that integrated the person and their body. Neurologists have very clear standards that allow them to very accurately determine when someone meets the neurological criteria for death and, if followed properly, there are virtually no false positives. As a result, brain death has been recognized in every state for decades.

Q: Why does it seem to be an open question as to when it's appropriate to declare brain death?

Magnus: Under most circumstances, there is no question in medicine about when someone is brain dead, though there can be situations where confounding factors make the examination impossible to carry out. Similarly, there is no question under the law that patients who meet neurological criteria for brain death are dead. There are, however, three challenging aspects to brain death. First, because mechanical ventilation continues, the bodies of brain-dead patients have beating hearts and are warm to the touch. Thus, it can be hard for families to accept that they are really gone. Second, because these deaths are often hard to accept, there are questions about how long to allow families to consider the

situation before carrying out the brain-death examination—or how long to maintain mechanical support following the declaration of death. Finally, there is a religious minority, particularly some orthodox Jews, who have actually decided on religious grounds that only cessation of the beating of the heart counts as death, and attempted to fight against the standard definitions of death.

Q: You write that the definition of brain death has been formally adopted in 45 states and recognized in the rest through judicial orders, yet others say that New York and New Jersey take a family's religious beliefs into account. Can you clarify this confusion? Is brain death recognized in all 50 states?

Magnus: Yes, brain death is death in all 50 states. Because of political lobbying by a vocal religious minority in these two states, brain death is occasionally handled differently in New York and New Jersey. In New York, families who have religious objections to brain death are given three days after the finding of before death is officially declared. In New Jersey, there is a broader religious exception. But the vast majority of patients who meet neurological criteria are declared dead, even in New Jersey and New York.

Q: In the case of Jahi McMath, the argument is being made that families—not physicians—should be able to determine when their loved one should be considered dead. However, you write that the current "bright line" is needed in defining brain death. Why isn't it feasible to give families a greater say?

Magnus: The line between life and death is legally, ethically and medically important. It determines when someone has full constitutional protections under the law, when someone's will takes effect, whether someone is still married and when physicians are obligated to provide life-sustaining medical treatments. It also determines the line where it is allowable to procure organs. Without brain death, there would be little to no cadaveric organ procurement in the United States, leading to thousands of deaths every year.

It is important that these lines be drawn in ways that are medically and philosophically defensible. Imagine if we decided that parents could decide when their children are mature enough to be allowed the status of adulthood. Some 40-year-olds would never get to vote or make decisions, while some 10-year-olds would. Instead, we draw a clear boundary at age 18. If a religious minority decides that patients are adults at age 13, it does not follow that the law should be different for them. Similarly, there needs to be a bright line drawn by professionals who can reliably and accurately distinguish between life and death, as we distinguish between child and adult. While our hearts go out to the family of Jahi McMath, it is clear that they are hoping for outcomes that are not achievable. Jahi McMath will never recover—that is a medical certainty. But her family remain convinced that she will improve. Their conviction has no bearing on the physical and medical realities that should govern the drawing of the line between life and death.

Q: Is there something that hospitals and physicians should be doing that would help them better explain brain death to patients' families and deal with the ramifications?

Magnus: First, the better communication is between health-care providers and patients' families, the more trust is maintained in that

relationship, the more likely it is that families will accept the reality and the explanation that their loved one has passed away. Second, we should be much more careful with our terminology. Referring to mechanical ventilation as "life support" and the withdrawal as "withdrawing life support" implies—incorrectly—that the patient is alive. Even using the language of "brain death" makes it sound like the patients are not "truly" dead. Referring to the patient as simply dead (by neurological criteria) is probably clearer. Finally, it is important that the media understand that the McMath case is not an "end-of-life" issue, similar to Schiavo or Cruzan or other cases around end of life. This was a controversy that did not arise during the dying process, but after its completion.

Provided by Stanford University Medical Center

Citation: Dr. David Magnus on understanding brain death (2014, February 6) retrieved 17 April 2024 from https://medicalxpress.com/news/2014-02-dr-david-magnus-brain-death.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.