Hospitals' brain death policies vary dramatically, study finds

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Researchers fear organ donations might drop if potential donors don't think proper steps are taken every time.

(HealthDay)—The rules for judging when a patient is brain dead vary widely from hospital to hospital, despite the existence of national standards created to ensure accuracy, a new study has found.

The American Academy of Neurology adopted a set of updated guidelines in 2010 for judging whether a person has lost all brain function and is being kept alive solely through hospital machinery, said lead researcher Dr. David Greer, a professor of neurology at the Yale School of Medicine, in New Haven, Conn.

There are no legitimate reports of any patient ever being declared brain dead when they weren't, Greer said, but such judgments need to be made with "100 percent certainty."

"That's why we want to provide a very high level of accountability for this, and that's why we created the guidelines to be so specific, so straightforward and cookbook," Greer said. "Basically, you might call it 'Brain Death For Dummies.' You should be able to take this checklist to the bedside, follow it point by point and be able to get through it."

But hospitals have been slow to adopt the brain death standards in their policies, Greer and colleagues found in a national review.

They reviewed 508 hospital policies regarding brain death, representing hospitals and health systems in all 50 states. The results were published online Dec. 28 in the journal *JAMA Neurology*.

To rule a person brain dead, physicians must make two judgments, Greer said.

They have to prove there's no brain function at all, even to regulate automatic processes in the body. "Even the most basic things such as taking a breath constitutes brain function," he said.

They must also rule out any chance that the person might recover brain function. For example, doctors have to make sure the person isn't suffering from a condition that resembles brain death, Greer said.

"If there's any chance that, by continuing to treat the patient or by eliminating some unknown factor, the patient might retain some brain function, then you don't declare them," he said.

But the rules for both judgments vary widely between hospitals, and often do not stick to the guidelines, researchers found.

For example, only 56 percent of hospital policies required doctors to rule out hypotension—severely low blood pressure—as a factor that might create the illusion of brain death, according to review findings.

In addition, one out of every five policies did not require doctors to rule out hypothermia—abnormally low body temperature—as a possible factor.

Dr. James Bernat, a neurologist with Dartmouth's Geisel School of Medicine in Hanover, N.H., said he was surprised to learn that about one in 10 hospital policies did not require doctors to make sure that a patient can no longer breathe on his or her own before declaring brain death—otherwise known as an "apnea test."

"That is an absolute requirement," Bernat said. "No one should ever do a brain death determination without an apnea test. Determining apnea is essential."

Many differences among hospitals can be chalked up to variations in community standards and state law, said Dr. John Combes, senior vice president of the American Hospital Association.

"There are different state and legal requirements that hospitals must follow," Combes said. "I think that inherently there is going to be variation."

But the updated national requirements take such variations into account, Greer said. For example, the guidelines provide flexibility regarding which type of doctor can judge brain death, how many doctors need to be involved and how many examinations should occur.

"However, there are core requirements that should not be debatable whatsoever," he said. "The core things absolutely have to be there. If there are things stipulated by the state on top of that, then that's fine."

The review researchers are concerned that organ donations could drop off if potential donors become fearful that the proper steps aren't being followed to make sure brain death has occurred, Greer said.

"That's why we're all working together, to make sure this is done right 100 percent of the time," he said. "If the public were to lose faith in what we're doing on the medical side, then that would have disastrous implications for organ donation."

Greer said the review results show that hospitals are moving in the right direction, but still have more to do.

Combes agreed. "This article encourages [hospitals] to review their procedures to make sure they meet the current standard of evidence and medical knowledge," he said.

Hospitals might be quicker to adopt solid policies if they were required to do so by the Joint Commission, the body that accredits hospitals, Bernat said.

"I can tell you if the Joint Commission insists this be done in a certain way, then it will be done," he said.

More information: Visit the American Academy of Neurology for more on brain death.