

Second brain death exam may be unnecessary, hurt organ donation rates

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Requiring a second exam on a person who is considered brain dead may be unnecessary, according to a study on the impact of a second brain death exam on organ donation rates. The research is published in the December 15, 2010, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

For the study, scientists reviewed the cases of 1,229 adults and 82 children ages one and older pronounced brain dead. The information was taken from the New York Organ Donor Network database during a 19-month period.

"One of the most disturbing findings of our study is the prolonged anguish imposed on grieving families in the [intensive care unit](#) waiting for the second brain death exam," said study author Dana Lustbader, MD, FCCM, FCCP, with The North Shore LIJ Health System in Manhasset, New York. "Not only is the opportunity for organ donation reduced, but families may endure unnecessary suffering while waiting an average of 19 hours for the second exam to be completed."

"Since organ viability decreases the longer a person is brain dead, our results show that conducting more than one brain death examination results in the loss of potentially life-saving organs," reports Lustbader. "A repeat exam adds an extra day of intensive care resulting in additional costs of about a million dollars per year in the New York region alone."

The study found that none of the people declared brain dead in the first

exam were found to have restored brain stem function in the second exam.

Lustbader noted that 166 people, or 12 percent, sustained a cardiac arrest while awaiting a second exam or after the second exam, making them ineligible for organ donation.

The average time between the two exams in the study was 19 hours, three times longer than recommended by the New York State Health Department. As the time between exams increased, consent for organ donation decreased from 57 percent to 45 percent. In addition, refusal of [organ donation](#) increased from 23 percent to 36 percent as the time between exams increased.

In New York, the State Department of Health's 2005 brain death guidelines require a breathing test and two clinical brain death exams, carried out six hours apart. In 2010, the American Academy of Neurology updated its brain death guidelines, which now call for only one brain death examination.

"These findings illustrate why there's a crucial need to standardize approaches for determining brain death," said Gene Sung, MD, MPH, of the University of Southern California in Los Angeles and a member of the American Academy of Neurology, who wrote an editorial regarding the article that is published in Neurology.

More information: To read the American Academy of Neurology's updated guidelines on brain death, visit www.neurology.org/content/74/23/1911.full.pdf+html

Provided by American Academy of Neurology

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