

Fewer patients with brain injury being declared 'brain dead'

October 28 2013

Fewer patients with brain injury are being declared "brain dead," perhaps reflecting better injury prevention and improved care, according to a new study in *CMAJ* (*Canadian Medical Association Journal*). However, the main source of organ donations for transplants is patients with neurologic death, so this finding may explain the declining rates of organ donation in some regions.

In a study of 2788 [patients](#) in Calgary, Alberta, researchers found that the odds of patients with brain injury deteriorating to neurologic death decreased over the 10-year study period. The percentage of patients progressing to neurologic death decreased from highs of 8.1% in 2002 and 9.6% in 2004 to 2.2% in 2010 and was most dramatic in patients with [traumatic brain injury](#).

"Our finding that a reduced proportion of patients with brain injury progressed to neurologic death suggests that initiatives aimed at improving road safety, preventing injuries during recreational activities, and improving prehospital and in-hospital care, have had an effect and should continue to be promoted," writes Dr. Andreas Kramer, a physician with the departments of Critical Care Medicine and Clinical Neurosciences, Foothills Medical Centre, University of Calgary, Alberta, with coauthors.

Traffic-related deaths decreased 24% between 2006 and 2010 (from 404 to 307); nonfatal collisions also declined despite consistent population growth, according to Alberta Transportation. As well, airbags and

helmets for cycling, skiing and other activities are preventive measures in wide use across the country.

Clinical care of patients with brain injury has also improved over the last decade in Alberta and other regions in Canada with the introduction of regional management protocols for the care of patients with [brain injury](#), more specialists in neurocritical care, and surgery that can help relieve pressure on brain swelling.

The authors note that although this is good news, lower rates of neurologic death have implications for organ donations and [transplants](#). Donation after neurologic death accounts for about half of kidney transplants, three-quarters of liver transplants, 90% of lung and pancreas transplants, and all heart and small bowel transplants.

"Our results likely help explain the relatively stagnant or even declining rates of deceased [organ donation](#) in some Canadian jurisdictions," they write.

"If organ transplantation rates are to increase, it will need to occur through alternative approaches, such as living donation, donation after cardiocirculatory death and innovations aimed at improving the use of donated organs," they conclude.

More information: www.cmaj.ca/lookup/doi/10.1503/cmaj.130271

Provided by Canadian Medical Association Journal

Citation: Fewer patients with brain injury being declared 'brain dead' (2013, October 28)
retrieved 5 May 2024 from
<https://medicalxpress.com/news/2013-10-patients-brain-injury-declared-dead.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.