

Cause of donor death should not automatically exclude lungs from transplant consideration

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Patients receiving lungs from donors whose cause of death was asphyxiation or drowning have similar outcomes and long-term survival as patients receiving lungs from traditional donors, according to a study in the October 2014 issue of *The Annals of Thoracic Surgery*.

Key points:

- Lungs from donors whose cause of death was asphyxiation or drowning can be safely transplanted into [patients](#) with end-stage [lung](#) disease.
- Patient survival rates were not affected when lungs from cases involving asphyxiation and drowning were used.
- The researchers note that if centers wanted to expand their individual criteria for donation, they could successfully expand their donor pool.

"For most patients with end-stage lung disease, transplant offers the only hope for survival, but there is a critical organ shortage, especially for patients on the [lung transplant](#) list. Increasing the potential donor pool would help reduce the number of patients who die while on the waiting list and help expand this lifesaving treatment to those who need it," said Bryan A. Whitson, MD, PhD, from The Ohio State University Wexner Medical Center in Columbus.

Dr. Whitson and colleagues searched the United Network for Organ Sharing (UNOS) Standard Transplant Analysis and Research registry for lung transplants from 1987 to 2010 and assessed the association between donor cause of death and recipient survival, focusing on asphyxiation or drowning as the cause of death. Lungs from donors who died from asphyxiation or drowning are not routinely utilized because of potential damage sustained by the organs.

The researchers found 18,250 adult primary lung transplants, including 309 cases that involved asphyxiation or drowning. They also found that although the hospital stay was slightly longer (0.8 day) for recipients of lungs from asphyxiation or drowning deaths when compared with patients who received lungs from all other causes of donor death, survival rates were the same and there were no differences in treatment for rejection within the first year, post-transplant dialysis, or post-transplant stroke.

"Our results show that the cause of death in an [organ donor](#) should not automatically be an exclusionary criterion for transplant consideration," said Dr. Whitson. "The conventional criteria for organ quality and function need to be met, of course, but this adds a potential increase in the donor pool.. Individual transplant centers evaluate donors on a case-by-case basis and assess the risk and make the best match of donor and recipient. Based on our results, it appears that if centers wanted to expand their individual criteria for donation, they could successfully expand their donor pool. Questions around these types of donors or even marginal lungs will be assessed by ex-vivo perfusion [therapy applied to [donor](#) lungs outside of the body before transplant that improves organ quality and makes lungs safe for [transplant](#)], and we should see an increase in the number of transplants overall."

More information: "Use of the Donor Lung After Asphyxiation or Drowning: Effect on Lung Transplant Recipients" ([DOI](#):

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