

# Lung transplant system often skips over those most in need

January 31 2012

---

The current system for allocating donated lungs based on proximity and not on need appears to decrease the potential benefits of lung transplantation and increase the number of patients who die waiting, researchers said at an annual meeting of thoracic surgeons in Fort Lauderdale, Fla.

Using data provided by the United Network for Organ Sharing (UNOS), study author Mark J Russo, MD, MS, and colleagues at the University of Chicago and Columbia University found that [donor lungs](#) were routinely allocated to less urgent, local candidates even when there were patients within the region but outside the local donor service who were in much greater need.

Among the 580 locally allocated double-lung transplants performed in 2009, 480 less needy candidates, or 83 percent of all double-lung transplants, received the organs even though a well-matched candidate in greater need existed in the region.

Twenty-four percent of such cases involved skipping over regional candidates with lung allocation scores — which range from 1 to 100, based on need and likely benefit — more than 10 points higher than the local recipient. More than 7 percent of the events involved a regional candidate with a lung allocation score (LAS) more than 25 points higher than the local recipient. Overall, 185 of the bypassed regional candidates ultimately died on the waitlist.

More than a decade ago, the U.S. Department of Health and Human Services issued the "Final Rule," intended to ensure that organs were allocated "based on medical criteria, not accidents of geography." The new data, however, show that where a transplant candidate lives continues to influence access to donated lungs.

"We found that too often, and to many patients' detriment, organs are allocated according to geography rather than urgency," said Russo, assistant professor of surgery at the University of Chicago Medicine. When lungs go to less needy candidates within the local Donor Service Area and never become available to sicker candidates at the regional or national level, "this decreases the overall benefits of a transplant," he said.

One unfortunate but not unusual example was a 27-year-old man with cystic fibrosis who was in an intensive care unit awaiting a lung transplant. He had a lung allocation score of 91 out of 100, one of the highest of such scores in the U.S. at the time. He was expected to die within a week without a transplant.

An appropriately matched lung donor did become available less than 20 miles from the hospital where this man was waiting, but because the candidate was just outside of the donor's local service area, two candidates from within the service area, each with an LAS in the 40s, took priority. One of these candidates received the organs. Five days later the 27-year-old patient died.

Such circumstances are not uncommon, Russo said.

"Ideally, a suitable donor organ would be available for every person who could benefit from transplantation," he said. "Unfortunately, there remains a critical scarcity of donor organs. More efficient allocation of this scarce and precious resource could dramatically increase the overall

benefit from [lung transplantation](#)."

Russo and colleagues previously demonstrated that 82 percent of lung transplants went to patients with an LAS of less than 50. For patients in this low-priority group, five-year life expectancy even without transplant is good — better than 50 percent.

For these patients, early transplantation brings limited survival benefit, he said.

"At the same time," Russo said, "candidates most in need and who could receive the greatest benefit are dying at high rates without the benefit of transplantation." Most patients with high LAS are still alive after five years if they get transplanted quickly, but very few of those who do not get an organ survive more than a few months.

This study considered only double-lung candidates. It did not factor in the possibility of national matching or allow for blood groups to be crossed. As a result, "it likely underestimates the frequency of these events and lives lost," Russo said. "Despite recent improvements in lung allocation, significant inefficiencies remain, resulting in diminished net benefit from transplantation and lost lives."

**More information:** The paper, "Local Allocation of Donor Lungs Results in Transplanting Lower Priority Lung Transplant Candidates," by M. J. Russo, D. Meltzer, R. Gibbons, W. T. Vigneswaran of the University of Chicago and A. Iribarne and J. R. Sonett of Columbia University, is being presented at the annual meeting of the Society of Thoracic Surgeons on Tuesday, Jan. 31, 2012.

Provided by University of Chicago Medical Center

Citation: Lung transplant system often skips over those most in need (2012, January 31) retrieved 27 April 2024 from <https://medicalxpress.com/news/2012-01-lung-transplant.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.