

LA's BeST Summer Project 2025

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Scientists, scholars and champions of health equity for all people

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UNOS

- The United Network for Organ Sharing (UNOS) manages the U.S. organ transplant system.
- Maintains a national registry of all organ transplant candidates, recipients, and donors in the U.S.



Saving lives together

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UNOS (Design and characteristics)

- **Observational cohort design:**
Patients are **followed from time of waitlisting or transplantation** until death, graft failure, or administrative censoring.
- **Prospective data collection:**
Information is collected over time, not reconstructed retrospectively.
- **Population-level scope:**
Covers all transplant centers in the U.S., reducing selection bias.

UNOS (Data)

- **Key Elements**
 - **Demographics** (age, race, sex)
 - **Clinical data** (diagnosis, comorbidities, lab values)
 - **Transplant details** (organ type, donor characteristics, HLA match)
 - **Outcomes** (graft survival, patient survival, re-transplantation)

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Some of our recent work

Artificial Organs



MAIN TEXT | [Full Access](#)

Comparison of waitlist and post-transplant outcomes in patients supported with total artificial heart versus continuous biventricular assist devices

Joel Ferrall, Ajay S. Vaidya, Eric S. Kawaguchi, Sanjeet Aaron M. Wolfson [✉](#)

First published: 09 October 2024 | <https://doi.org/10.1016/j.artorg.2024.100000>



The Journal of Heart and Lung Transplantation

Volume 42, Issue 11, November 2023, Pages 1529-1542

Original Clinical Science

New UNOS allocation system associated with no added benefit in waitlist outcomes and worse post-transplant survival in kidney patients

Michael Francke MD ^{a b 1}, Aaron M. Wolfson MD, MS ^{a b 1} [✉](#), Michael W. Fong MD ^{a b}, Jonathan Nattiv MD ^{a b}, Kruti Pandya MD ^{a b}, Eric S. Kawaguchi PhD ^c, Sylvia Villalobos MD ^{a b}, Mark Mroz RN ^d, Ashley Sertic NP ^d, Ashley Cochran NP ^d, Mary Alice Ackerman NP ^d, Marie Melendrez NP ^d, Rachel Cartus PharmD ^d, Kori Ann Johnston NP ^d, Kamso O. Ogunbayo MD ^{a b}, Joel Ferrall BS ^d, Eugene C. DePasquale MD ^{a b}, Raymond Lee MD ^{e f}, Ajay S. Vaidya MD ^{a b}



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ORIGINAL ARTICLE

UNOS policy change benefits high-priority patients without harming those at low priority

Aaron M. Wolfson ^{1 2} [✉](#), Eugene C. DePasquale ^{1 2}, Michael W. Fong ^{1 2}, Kruti Pandya ^{1 2}, Leon Zhou ^{1 2}, Eric S. Kawaguchi ³, Sunu S. Thomas ⁴, Ajay S. Vaidya ^{1 2}

Artificial Organs



MAIN TEXT | [Full Access](#)

Effect of UNOS policy change and exception status request on outcomes in patients bridged to heart transplant with an intra-aortic balloon pump

Aaron M. Wolfson [✉](#), Eugene C. DePasquale, Vaughn A. Starnes, Mark Cunningham, Craig Baker, Raymond Lee, Michael Bowdish, Michael W. Fong, Joseph Rahman, Kruti Pandya ... [See all authors](#)

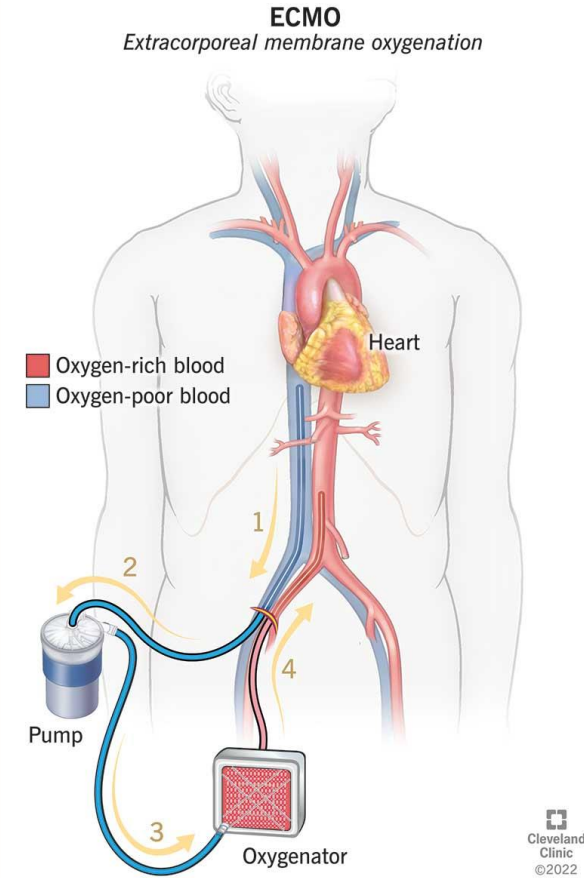
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Mechanical Circulatory Support (MCS)

- MCS devices are used to assist or replace the pumping function of the heart and/or lungs.
 - Machine (external) or implant (internal)
- Temporary support for those who are awaiting a heart transplantation.
- Some examples for *critically ill* patients:
 - ECMO: Extracorporeal membrane oxygenation
 - IABP: Intra-Aortic Balloon Pump
 - Impella: Percutaneous ventricular assist device



Ref: Cleveland Clinic

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Research Question

1. Compare post-transplant survival between patients who had ECMO only vs. ECMO + IABP/IMPELLA at time of transplant.
2. Is time on waitlist associated with worse post-transplant survival?
 - Does that association differ between those on ECMO only or ECMO + IABP/IMEPLLA?