



THE TECHNOLOGY MANAGING THE U.S. DONATION AND TRANSPLANT SYSTEM IS STABLE, RELIABLE AND SECURE

UNetSM – UNOS' technology that houses the waitlist – has helped double the number of transplants performed in the U.S. over the past 25 years. UNOS uses UNet to match patients with organs as part of its role managing the national donation and transplant system under contract with the federal government.

UNet adheres to the highest cybersecurity standards and regularly implements enhancements to strengthen and reinforce the system, including:

- Advanced encryption protocols
- Regular penetration testing and comprehensive risk assessments
- Modern multi-factor authentication
- Implementation of monitoring tools to detect and respond to potential threats in real time
- Development of a comprehensive member and third-party security program
- Optimization with AI and machine learning, ensuring it maintains 99.9% uptime
- Implementing new policies faster. Since 2019, UNOS has cut the amount of time it takes to implement new policies in half

DRIVING INNOVATION

UNOS' vision for the future includes seamless electronic health record interoperability, automated donor referrals, a comprehensive logistics platform, user-centered design, and the integration of AI to optimize patient outcomes. With the right support, UNOS will lead the way in leveraging cutting-edge technology to strengthen and modernize the organ donation and transplant system, ensuring efficiency, equity and more successful transplants for patients.

LEVERAGING EMERGING TECHNOLOGIES TO DRIVE INNOVATION

UNOS will utilize innovative large language models and predictive analytics to revolutionize building the future of organ allocation and donation, enhancing efficiency, reducing barriers, and improving equitable patient outcomes:



Predictive Analytics for Organ Allocation Optimization

– Analyzes vast datasets to optimize organ allocation, predicting compatibility more precisely and facilitating informed and timely decision-making.



Automated Donor Referral Processes – Streamlines donor referrals by quickly assessing medical records and identifying eligible donors in real time.



Enhanced Logistics & Transportation – Optimizes organ transportation routes, reducing delays and ensuring timely deliveries to hospitals.



Natural Language Processing for Streamlined Predictive Accuracy – Leveraging AI on unstructured clinical data to develop large models for future transplant analytics capabilities.



Timely Detection of Pre-Waitlist Measures – Tracking intricate variables and forecasting outcomes with precision to improve decision-making processes using data and predictive trends to help prevent the need for a life-saving organ.

Organ Offer Notifications

170,000

Average number of organ offer notifications every month

Match Run Times

Average match run time for all organs except kidney

2.3

seconds



Average match run time for kidney

18

seconds



UNetSM WaitlistSM

Transplant programs use the waitlist to add candidates to the national waiting list and manage their health data. Waitlist is built to ensure security, reliability and speed.

UNetSM DonorNet[®]

Organ procurement organizations (OPOs) use DonorNet to add health information about organ donors and to match organs to transplant patients. DonorNet sends automated organ offers to transplant surgeons for acceptance or refusal.

UNetSM TransNetSM

OPOs use TransNet for organ packaging and labeling, ensuring organs reach recipients without delay.

UNetSM TIEDI[®]

Data collection tool that enables continuous improvements to the system.

A patient listed

Pat's doctor determines that they need a new liver. Transplant hospital lists Pat using Waitlist.

A donor identified

Jamie registered as an organ donor before their death. An OPO enters Jamie's health data in DonorNet.

Match run

Jamie's donor data is used to make a match run—a unique list of potential transplant candidates for each organ.

Offer sent and evaluated

Pat's transplant surgeon receives offer for Jamie's liver. Following evaluation, Pat's surgeon accepts the offer.

Organ transported

When the donated liver has been recovered, the OPO uses TransNet to automate organ packaging and labeling.

Post-transplant data

Pat's transplant team uses TIEDI to submit and monitor Pat's health data, enabling data analysts and transplant professionals to continuously improve the system.