

Realizing the Promise of Equity in the Organ Transplantation System

Recommendations for Organ Procurement Organizations

The success of the U.S. deceased donor organ transplantation system depends on the generosity of individuals and their families who, at the time of death, make the decision to donate organs to someone they have never met. Without these donations, organ transplants would not be possible.

Organ procurement organizations (OPOs) play a vital role in the transplantation process by identifying potential organ donors, securing permission for deceased donor donation, providing support to donor families, clinically managing organ donors, allocating and procuring organs, and confirming that organs reach the transplant hospital. There are currently 57 OPOs in the United States, each operating in a separate geographic area. However, the performance of OPOs varies widely, and OPOs only recently began to collect standardized data that would allow meaningful comparisons in their performance.

RECOMMENDED ACTIONS

Increase donation after circulatory determination of death.

Donation after circulatory determination of death (DCDD) provides an opportunity to increase the number of donated and transplanted organs, but presents some complications not present in donation after neurological determination of death (DNDD). DCDD donors typically yield fewer usable organs than DNDD donors, so

procurement from DCDD donors is associated with a higher cost per organ. Some organ transplants, such as liver and heart transplants, have increased risks of complications when the organs are procured from DCDD donors. However, new preservation technologies such as normothermic perfusion have shown promise in reducing the likelihood of complications in DCDD organ transplants. Technology has also opened up possibilities to procure and use organs from other medically complex donors, such as older donors and donors with Hepatitis C, HIV, or COVID-19.

Action: OPOs should increase the number of organs procured from DCDD donors and other medically complex donors, and adopt new technologies that increase the success rate of transplants involving medically complex organs.

Establish donor care units nationwide.

Donor care units, or DCUs, are facilities built and managed by OPOs, community hospitals, or transplant centers to recover organs from deceased donors. DCUs provide several benefits to the organ transplantation process: they open up space in ICUs for other patients, allow donations to be managed by staff with experience in the donation process, provide stability in setting operating room times for procurement operations, and

allow the procurement of more organs at a lower cost per organ than donations from hospitals.

Action: Establish a DCU for each OPO. Each DCU should have the following:

- Dedicated beds for deceased donors in a dedicated space;
- Dedicated operating rooms and staff for organ procurement surgery;
- Dedicated space for donor families:
- ICU-level care;
- Oversight by a critical care physician;

- Ability to conduct in-house imaging and diagnostics of donors, organ rehabilitation and therapy, and donor intervention research; and
- Reasonable distance to an airport.

Review and standardize requirements for organ quality assessment.

Transplant centers often reject kidneys based on the result of biopsies performed after the organ is removed. There is growing evidence that these biopsies may not significantly improve the prediction of transplant outcomes beyond estimates using clinical criteria.

Action: The Organ Procurement and Transplantation Network should review and standardize requirements for organ quality assessments, including consideration of the value of biopsies, to help transplant centers accept more organ offers.

COMMITTEE ON A FAIRER AND MORE EQUITABLE, COST-EFFECTIVE, AND TRANSPARENT SYSTEM OF DONOR ORGAN PROCUREMENT, ALLOCATION, AND DISTRIBUTION **Kenneth W. Kizer** (*Chair*), Atlas Research; **Itai Ashlagi**, Stanford University; **Charles Bearden**, Clinical Consulting Associates; **Yolanda T. Becker**, University of Chicago (*until September 2021*); **Alexander Capron**, University of Southern California; **Bernice Coleman**, Cedars-Sinai Smidt Heart Institute; **Leigh Anne Dageforde**, Massachusetts General Hospital and Harvard Medical School; **Sue Dunn**, Donor Alliance (Former); **Robert Gibbons**, University of Chicago; **Elisa J. Gordon**, Northwestern University; **Renée M. Landers**, Suffolk University; **Mario Macis**, Johns Hopkins University; **Jewel Mullen**, The University of Texas at Austin; **Neil R. Powe**, Zuckerberg San Francisco General Hospital and University of California, San Francisco; **Dorry Segev**, Johns Hopkins University¹; **Dennis Wagner**, Yes And Leadership, LLC; **James Young**, Cleveland Clinic and Case Western Reserve University

STUDY STAFF **Rebecca A. English**, Study Director; **Amanda Wagner Gee**, Program Officer (*until November 2021*); **Siobhan Addie**, Program Officer (*until August 2021*); **Meredith Hackmann**, Associate Program Officer; **Elizabeth Townsend**, Associate Program Officer (*until October 2021*); **Emma Fine**, Associate Program Officer; **Deanna Giraldi**, Associate Program Officer (*from October 2021*); **Ruth Cooper**, Associate Program Officer (*from June 2021*); **Kendall Logan**, Senior Program Assistant (*until July 2021*); **Christie Bell**, Finance Business Partner; **Andrew M. Pope**, Senior Director, Board on Health Sciences Policy; **Sharyl Nass**, Senior Director, Board on Health Care Services

¹ As of February 1, 2022, Dr. Segev is at New York University.

FOR MORE INFORMATION

The Policy Brief was prepared based on the Consensus Study Report *Realizing the Promise of Equity in the Organ Transplantation System* (2022). Copies of the Consensus Study Report are available from the National Academies Press at www.nap.edu.

This activity was supported by Contract No. HHSN263201800029I/7 5N98020F00011 between the National Academy of Sciences and the National Institutes of Health. Any opinions, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect the views of any organization or agency that provided support for the project. The study was sponsored by the U.S. Equal Employment Opportunity Commission. Any opinions, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect the views of any organization or agency that provided support for the project.

To read the full report, visit <http://www.nationalacademies.org/organ-equity>.

Health and Medicine Division

NATIONAL ACADEMIES Sciences
Engineering
Medicine