

# Require Human Leukocyte Antigen (HLA) Confirmatory Typing for Deceased Donors

*OPTN Histocompatibility Committee*

# Purpose of Proposal

- Increase the safeguards for deceased donor HLA typings
  - Reduce the risk of unintended immunologically incompatible transplants
  - Increase confidence in HLA typing and confidence in using virtual crossmatching
  - Intends to address technical laboratory errors, including sample switches

# Proposal

- Require two HLA typings be performed for deceased donors when an HLA typing is required
  - Modeled after ABO requirements
  - Must be from specimens drawn at two separate times
  - Does not change the circumstances or timing of required HLA typings

# Rationale

- Critical HLA discrepancies occur in approximately 0.3% of deceased donor typings
  - 12 cases of samples being switched were reported to the OPTN between 2015-2021
- Incorrect HLA typings can lead to hyperacute rejection, graft failure, and death if an organ is transplanted into an incompatible recipient
  - As of 2018, approximately 18% of kidneys were transplanted using a virtual crossmatch without a prospective physical crossmatch
- Incorrect HLA typings caught prior to transplant can still cause significant delays, cold ischemic time, and potentially organ discard

# Member Actions

- Histocompatibility labs would be required to perform two HLA typings for deceased donors
- OPOs would be required to draw two separate samples for HLA typings at two separate times

# What do you think?

- Would laboratories be able to run tests in parallel or would they anticipate an increase in the required time for HLA typing?
- Would a potential increase in the turnaround time for initial HLA typing be worth the increased confidence in the results, and the ability to confidently use virtual crossmatching?
- Would potential increased costs for confirmatory typing be prohibitive for labs or OPOs?
- Should the use of two different testing modalities be a requirement that is included in the new policy?