

## **Supplementary statistical methods.**

**(A) Multiple imputation (MI)** - MI using fully conditional specification methods which generated five imputed datasets was performed separately on the waitlist and post-transplant analysis cohorts, using the regression method for continuous imputed variables and the discrimination function for categorical imputed variables. Variables in the MI model are listed below. The survival event indicator and log-transformation of survival time were included in the MI procedures. As a sensitivity analysis, the cumulative baseline hazard approximated by the Nelson-Aalen estimator was used as replacement of log survival time in the MI procedures, and survival estimates were similar.

### **Variables used in MI procedures -**

**Variables included in the MI procedure for the waitlist cohort:** diagnosis, age, sex, race, height, weight, body mass index (BMI), initial status, blood type, ventricular assist device (VAD), extracorporeal membrane oxygenation (ECMO), ventilator, intravenous (IV) inotropes, implantable cardioverter defibrillator (ICD) use, symptomatic cerebrovascular disease, dialysis, estimated glomerular filtration rate (eGFR), albumin, insurance type, survival event indicator, and log of survival time.

**Variables included in the MI procedure for the post-transplant cohort:** Infection requiring IV drug therapy 2 weeks prior to transplant, intensive care unit (ICU), inhaled nitric oxide (iNO), bilirubin, ischemic time, cytomegalovirus (CMV) status, donor age, donor/recipient height ratio and weight ratio, donor sex, gender mismatch, race mismatch, Centers for Disease Control and Prevention (CDC) increased risk donor, donor drug abuse, donor eGFR, donor left ventricular ejection fraction (LVEF), donor inotropic support, donor diabetes, donor hypertension, donor cause of death, donor cardiopulmonary resuscitation (CPR) duration, post-transplant stroke, post-transplant dialysis, post-transplant permanent pacemaker, acute rejection episodes prior to discharge, length of stay, as well as characteristics used in the MI procedure for the waitlist cohort.

### **(B) Variables used in bootstrap variable selection process for Cox proportional hazards models.**

**Variables included in model selection for the waitlist cohort:** diagnosis, age, sex, race, BMI, initial status, blood type, VAD, ECMO, ventilator, IV inotropes, ICD use, symptomatic cerebrovascular disease, dialysis, eGFR, albumin, and insurance type.

**Variables included in model selection for the post-transplant cohort:** Infection requiring IV drug therapy 2 weeks prior to transplant, ICU, bilirubin, ischemic time, CMV status, donor age, donor-recipient age difference, donor/recipient height ratio and weight ratio, donor sex, gender mismatch, race mismatch, CDC increased risk donor, donor drug abuse, donor eGFR, donor

LVEF, donor inotropic support, donor diabetes, donor hypertension, donor cause of death, donor CPR duration, as well as characteristics used in the model selection for the waitlist cohort.