

## Supplementary methods

We categorized primary lung pathology according to the United Network for Organ Sharing classification of lung diseases. Recipients aged  $\geq 65$  years in our center mainly consisted of Group D restrictive lung diseases (IPF, non-IPF pulmonary fibrosis) and Group A obstructive lung diseases (COPD). Other indication included bronchiectasis and lymphangioleiomyomatosis (LAM), etc. Baseline data included the date of transplantation, age at transplantation, sex, body mass index (BMI), primary diagnostic indication for LT, etc. Donor characteristics, including age, donation type, gender match, intubation time and interprovincial transportation via the Green Channel of Human Organ Transportation (GCHOT), were recorded. Perioperative and postoperative factors, such as mechanical ventilator (MV) use or ECMO use before and after transplantation, the intensive care unit (ICU) duration, postoperative events and survival, were also analyzed. Postoperative events, including infection, rejection, bronchial complications, organ-related cardiac dysfunction, cerebral dysfunction, pulmonary embolism, renal dysfunction and gastroesophageal reflux episodes, were recorded and compared. Death was noted from all causes and included death after the lung transplantation over any time interval. The time to death was calculated from the date of transplantation to the date of death.