A total of 132 patients, enrolled in a palliative homecare programme between May 2008 and Nov 2011, completed advance care planning. ESHF patients (97.4%) were most likely to choose own home as the preferred place of care should their condition deteriorate, compared to COPD (88.2%) and ESRF (86.7%). Most ESHF patients (92.1%) preferred to die at home; none chose to die in a hospital, while 7.9% indicated no preference. 11.7% of ESRF patients chose to die in an institution. COPD patients had the highest proportion indicating no preference (17.6%). About 83% of all patients preferred not to be resuscitated when no breathing or pulse could be detected. 10% of ESRF patients would like CPR performed on them, compared to 2.9% of COPD patients, and 7.9% of ESHF patients. The decision for artificially administered nutrition at the end of life was the most difficult one to make. Though more than half indicated they did not want tube-feeding, a significant proportion preferred to leave the decision to their doctor or family member (17.7% for COPD; 21.1% for ESHF; 26.7% for ESRF). 82.4% of COPD patients opposed aggressive and invasive treatment to prolong life. None of the ESHF and ESRF patients chose aggressive treatment but close to a quarter preferred it to be a medical or a family decision. This study is one of the first in Singapore to examine the differences in end-of-life preferences in end-organ failure patients. Future studies could explore racial differences to develop culturally sensitive advance care planning discussions.