**Table 1:** Characteristics of participants by primary or secondary diagnosis of heart failure

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| --- | --- | --- | --- |
| Variable | Primary heart failure (n=2,635,673) | Secondary heart failure (n=8,342,383) | p-value |
| Demographics |
| Age (years) | 72.5±14.5 | 73.1±13.7 | <0.001 |
| Female | 49.5% | 52.5% | <0.001 |
| Weekend admission | 23.6% | 24.3% | <0.001 |
| Year 20102011201220132014 | 19.7%19.2%18.4%20.6%22.2% | 18.7%19.1%18.9%21.0%22.3% | <0.001 |
| Primary expected payerMedicareMedicaidPrivateUninsuredNo chargeOther | 73.8%8.3%11.4%3.7%0.4%2.4% | 77.5%7.6%10.5%2.1%0.2%2.1% | <0.001 |
| Median household income (percentile) 0-25th26-50th51-75th76-100th | 31.6%25.0%23.3%20.2% | 30.8%25.0%23.4%20.8% | <0.001 |
| Cardiovascular comorbidities |
| Hypertension | 70.5% | 71.3% | <0.001 |
| Coronary artery disease | 44.5% | 44.9% | <0.001 |
| Previous myocardial infarction | 12.6% | 12.1% | <0.001 |
| Previous PCI | 9.9% | 9.4% | <0.001 |
| Previous CABG | 14.5% | 11.4% | <0.001 |
| Previous heart failure | 1.5% | 75.7% | <0.001 |
| Atrial fibrillation | 36.8% | 35.8% | <0.001 |
| Valvular heart disease | 0.4% | 11.8% | <0.001 |
| Previous stroke or TIA | 10.7% | 13.1% | <0.001 |
| Peripheral vascular disease | 11.5% | 12.5% | <0.001 |
| Pulmonary circulatory disorder | 0.4% | 7.7% | <0.001 |
| Non-cardiovascular comorbidities |
| Smoker | 27.3% | 26.6% | <0.001 |
| Alcohol misuse | 3.4% | 3.5% | <0.001 |
| Dyslipidemia | 45.0% | 43.7% | <0.001 |
| Obesity | 19.1% | 16.8% | <0.001 |
| Diabetes mellitus | 43.1% | 40.4% | <0.001 |
| Chronic lung disease | 33.9% | 31.0% | <0.001 |
| Hypothyroidism | 15.9% | 16.6% | <0.001 |
| Renal failure | 38.4% | 29.3% | <0.001 |
| Liver disease | 2.7% | 3.1% | <0.001 |
| Fluid and electrolyte disorders | 29.4% | 37.5% | <0.001 |
| Peptic ulcer disease | 0.03% | 0.04% | <0.001 |
| Anemia | 28.3% | 27.8% | <0.001 |
| Bleeding | 0.7% | 2.8% | <0.001 |
| Cancer | 3.6% | 4.8% | <0.001 |
| Depression | 8.6% | 11.2% | <0.001 |
| Dementia | 9.2% | 13.5% | <0.001 |
| Charlson Comorbidity Index | 2.2±1.7 | 2.9±1.8 | <0.001 |
| Hospital characteristics |
| Bed size SmallMediumLarge | 11.8%26.4%61.9% | 10.8%25.5%63.7% | <0.001 |
| Teaching hospital | 55.6% | 56.7% | <0.001 |
| Urban hospital | 89.8% | 90.3% | <0.001 |
| In-hospital outcomes and treatment |
| Cardiogenic shock | 0.8% | 1.3% | <0.001 |
| Cardiac arrest | 0.3% | 0.9% | <0.001 |
| Ventilation | 1.4% | 6.8% | <0.001 |
| Circulatory support | 0.3% | 0.8% | <0.001 |
| Intra-aortic balloon pump | 0.2% | 0.8% | <0.001 |
| Vasopressor | 0.3% | 0.6% | <0.001 |
| Coronary angiogram | 8.9% | 10.6% | <0.001 |
| Current admission PCI | 1.1% | 3.9% | <0.001 |
| Current CABG | 0.3% | 1.7% | <0.001 |
| Pacemaker or ICD implantation | 1.5% | 2.1% | <0.001 |
| Cardiac resynchronization therapy | 0.9% | 0.4% | <0.001 |
| Left ventricular assist device | 0.14% | 0.09% | <0.001 |
| Heart transplant | 0.08% | 0.02% | <0.001 |
| Discharge disposition HomeTransfer to other hospitalCare homeDischarge against medical adviceCourt/law enforcement | 57.6%18.2%23.0%1.2%<0.1% | 47.5%30.3%21.3%0.9%<0.1% | <0.001 |
| Length of stay (days) | 5.2±6.1 | 7.3±9.0 | <0.001 |
| Cost (USD) | $11,213±19,499 | $17,098±25,287 | <0.001 |
| Time to readmission | 16.3±7.6 | 16.6±7.5 | <0.001 |
| Readmission length of stay (days) | 6.2±7.2 | 6.5±7.5 | <0.001 |
| Death during readmission | 6.8% | 7.7% | <0.001 |
| Cost of readmission (USD) | $13,488±22,758 | $13,947±20,125 | <0.001 |

PCI=percutaneous coronary intervention, CABG=coronary artery bypass graft, TIA=transient ischemic attack, ICD=implantable defibrillator device