Patients who ever used invasive or non-invasive respiratory care in the National Health Insurance (NHI) in 1996-2007 (n=8,906,406; 34% of all enrollees ever alive in the 12 years)

A sub-sample obtained after simple random sampling with a fraction of 1/(3.4) to reduce the sample size to 10% of the whole population (the upper limit of sample size for using National Health Insurance data) (n=2,619,534; 10% of all enrollees ever alive in the 12 years)

New patients with prolonged mechanical ventilation in 1998-2006 (to allow at least 1-year observation after the event and at least 1-year observation before the event for each patient, and to focus on patients in or after 1998, when use of mechanical ventilation started to receive much attention) (n=50,481)

Inclusion criteria:
1. Continuous use of invasive ventilators, negative pressure ventilators, and/or positive pressure ventilators for at least 21 days
2. Use of invasive ventilators or negative pressure ventilators at the initiating stage of care
3. >=17 years of age on the 21st day of mechanical ventilation
4. The date of the 21st day of mechanical ventilation falling in 1998-2006
5. No use of invasive ventilators, negative pressure ventilators, and positive pressure ventilators for at least one year before the first day of this event of prolonged mechanical ventilation

Exclusion criteria:
1. The date of the 21st day outside the period from 1998-2003 (n=24,963)
2. Missing data for gender (n=36)
3. With missing data for other explanatory variables in model estimation (n=603 (3.1%) for 1998-2002, n=129 (2.2%) for 2003)

New patients in 1998-2003 for descriptive analysis (to allow at least 4-year observation after the event for each case) (n=25,482)

New patients in 1998-2002 for estimation of prediction models (n=19,127)

New patients in 2003 for model performance investigation (n=5,623)