

Patients with one or more order codes of respiratory care between 1997-2007 in the National Health Insurance database (N= 8,906,406)

Simple random sampling with a fixed ratio of 3.4:1 from the above patients (N= 2,619,534)

Inclusion criteria

1. Age  $\geq$  17
2. Linked with registry of catastrophic illness to include cancer patients only

Allow for the year of 1997 to exclude prevalent cases, only include new cancer receiving mechanical ventilation after 1998 (N= 27,663)

Cases under continuous mechanical ventilation > 7 days (N= 9,011)

5,138 Cases had undergone prolonged mechanical ventilation (ventilated more than 21days) after excluding 240 with multiple cancers