



Service Priorities and Programmes
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Long term mechanical ventilation service in a chest hospital

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Introduction

Chronic ventilator beds have been designated in our department since 2004 to take over management of patients deemed permanently ventilator-dependent at acute hospitals of the Kowloon West Cluster.

Objectives

To review the service model and outcomes of patients placed on long term mechanical ventilation in our department.

Methodology

Started with two beds in 2004, the number of designated beds for long term mechanical ventilation, including both invasive mechanical ventilation (IMV) and non-invasive ventilation (NIV) has been expanded to ten in our department since 2009. Patients deemed permanently ventilator-dependent have been taken over from acute hospitals for management in our department, including some for terminal care. The service approach is based on the following principles: (i) Supportive cares in patients deemed non-dischargeable from hospitals (ii) Rehabilitative cares in patients deemed to have potential for discharge and (iii) Further weaning attempt in patients deemed to have potential for liberation from ventilation, after careful assessment.

Result

Till end of 2011, 69 patients (35 IMV and 34 NIV) were admitted to the designated ventilator beds in our department. Mean age of patients was 71.7 years (36-90). 14 patients (20%) were weaned off ventilators, 17 patients (24.5%) were discharged and 43 patients (62.3%) died. The IMV sub-group admitted till 2009 had 27 patients. Mean age of patients was 71.1 years (36-90). The mean duration of IMV in acute hospitals before transfer was 5.2 months (0.75-24). 4 patients (14.8%) were weaned off ventilators, 4 patients (14.8%) were discharged and 14 (51.9%) died. The average length of stay was 4.69 months (0.1-32). Amongst the disease categories for ventilator dependency, 10 (37%) were primary pulmonary disorders, 7 (26%) were

neuromuscular disorders, 5 (18.5%) were anoxic brain damage, 4 (14.8%) were acute CVA and 1 (3.7%) was others. A patient with metabolic myopathy has been discharged home on IMV since 2007 after a comprehensive, multi-disciplinary course of rehabilitation and he has no unplanned re-admission since. This service model of long term mechanical ventilation in chest hospital has proven viable in helping relieve acute hospitals the burden of long term ventilator cares, discharging patients home on ventilator, weaning patients off ventilator and providing supportive cares for the non-dischargeable patients.