



Service Priorities and Programmes
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A Survey on Mechanical Ventilation in General Wards in Princess Margaret Hospital

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Introduction

Provision of mechanical ventilation support is a challenge in general wards in Princess Margaret Hospital. In order to improve the service provision and hence clinical care to patients on mechanical ventilation, a prospective observational survey was conducted to study the current situation.

Objectives

- (1) To study the profile of patients receiving mechanical ventilation in general wards;
- (2) to study the outcome of patients receiving mechanical ventilation in general wards;
- (3) To identify potential means to decrease ventilation days in general wards.

Methodology

All patients who had received mechanical ventilation support in general wards were recruited from 6 Dec 2011 – 31 May 2012. Data collected included patient demographics, indication and duration for ventilatory support, patient disposal and outcome.

Result

A total of 278 episodes of mechanical ventilation provision in general wards were captured, which involved 274 patients. The median age was 73.4 years. Ventilatory support was most commonly performed as a part of the cardio-pulmonary resuscitation procedure (43.2%) while the next commonest indication was respiratory distress or respiratory failure (29.1%). The median duration of ventilation was 12.7 hours (range 0.5 hour – 111 days). Of the 274 patients, only 67 patients (24%) were subsequently transferred to intensive care unit (ICU) or high dependency unit (HDU) for higher level care. The majority of the mechanically ventilated patients (207 patients, 76%) remained nursed in general wards. Among these latter 207 patients, 26 patients (13%) were discharged alive from hospital. Conclusions: The current situation and outcome of patients receiving mechanical ventilation in general wards is suboptimal.

Strategies for improvement must aim at reducing ventilation days in general wards. These include early detection of deteriorating patients to formulate a management plan, clear indications of mechanical ventilatory support, promotion of end-of-life care decision in terminal patients, good co-ordination between general wards and ICU or HDU for timely referral, and enhanced medical and nursing care in general wards to reduce the duration of ventilation once initiated.