



Service Priorities and Programmes
Electronic Presentations

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Improve the competency of nursing staff in caring patient with Non-Invasive Ventilation (NIV) in general medical ward

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Introduction

NIV has been shown to reduce intubation and in-hospital mortality in patients with respiratory disease complicated by acute respiratory failure. Nurses play an important role in initiation, monitoring, titration, optimizing patient's comfort level and complications prevention when patients receive the NIV treatment. These factors significantly contributed to the success or failure of the NIV treatment.

Objectives

It is to examine the compliance for care of patient requiring NIV and follow-up improvement measures will be implemented afterwards

Methodology

A criterion-based audit via convenient sampling method was carried out from 1st March to 31st March, 2017. The audit form was adopted from HAHO Advanced Nursing Standard for Patient Care. Patients were recruited including basic support service in non-designated NIV beds and augmented-support in designated NIV beds in Department of Medicine. The audit form consisted of 15 items including NIV machine set up and interface fitting, patient tolerance, complication prevention and treatment effectiveness. A follow up remedy action which includes educational sessions with skill workshops will be held especially targeted to the non-compliance or weakness items in the audit. The non-compliant or weakness items will also be monitored and reinforced during daily NIV ward round by respiratory nurses. A pre & post educational sessions & skill workshop assessment are required to assess their knowledge. Post-actions audit will also be performed in March 2018

Result

A total of 17 patients in non-designated NIV beds and 10 patients in designated NIV beds were recruited for the audit. The overall compliance rate was 89.8% for non-designated NIV beds and 97.3% for designated NIV beds respectively. Overall compliance rate of all items ranged from 80% -100% for designated NIV beds and 6 – 100% for non-designated NIV beds. However, the prevalent rate for setting up appropriate alarm limits was comparatively higher in designated beds than non-designated NIV beds (80% vs. 6% p<0.05). The overall air leakage in designated NIV beds can meet the standard range with <50L/min and therefore the target tidal

volume (TV) and pressure can be maintained whereas the air leakage is comparatively higher in non-designated NIV beds with 70 -80L/ min with TV and pressure maintained after compensation leakage was activated. The mask related skin lesion was higher in non-designated NIV beds (90% vs.76% $p<0.05$).