



Service Priorities and Programmes
Electronic Presentations

Convention ID: 467

Submitting author: Miss Fanny Kit Fong CHOI

Post title: Advanced Practice Nurse, PWH, NTEC

Improvement Program in application of non-invasive ventilation devices

ChoiKF, ChanIK, LeungST

Neonatal Unit, Prince Of Wales Hospital

Keywords:

nasal prong

CPAP

infant flow

Introduction

Non-invasive ventilation (NIV) support is getting more popular especially for preterm neonate following early extubation. However, application of NIV devices in NICU is not easy as patients are usually very small and delicate. Skin injury becomes a well-known adverse effect of NIV. It may lead to consequences such as nasal deformities, nasal septum erosion, vestibular stenosis and forehead abrasion. In view of the inadequate specific care strategies and clinical monitoring in our unit, an improvement plan which includes modification of our NIV care standard and staff communication for care is needed.

Objectives

To lower the incidence of skin injuries after implementation of the CQI program. 2. To identify any skin injuries of child with NIV devices early 3. To strengthen nurses's knowledge of the application on different types of NIV devices and the associated care 4. To develop and implement a references guide for skin assessment and clinical monitoring, encourage using new product 'neoseal' for skin protection.

Methodology

1. Examine current NIV devices used and the application method for patients on NIV therapy, measure the compliance and potential skin damages 2. Develop and introduce a reference guide for the assessment in application of NIV devices 3. Provide briefing to nurses in details about how to assess the correct size and placement of NIV devices including prongs, mask and headgear and the different types of NIV devices's application method, promote the new product 'neoseal' as skin protection, reinforce the strategies to prevent potential skin complications. 4. Attach cue cards to different types of NIV machines and education folder to bedsides for easy reference 5. Re-examine the applications of nasal devices in patients using NIV therapy after rolling out of the CQI program

Result

1. The nasal injury is significant reduced after implemented the program from 12% to 6% and skin injury is reduced from 3.7% to 2.4%. 2. The number of data choosing incorrect size of prong or mask is from pre- CQI of 11% to post-CQI of 7%, incorrect

placement of headgear is from pre-CQI of 15% to post-CQI of 11% 3. The lower percentage indicated both choosing the right size of NIV devices and correct application of headgear have been improved after the CQI program is implemented. 4. There are 18 data out of 170 in the post CQI program with the unfinished reference guide, the compliance rate of the nurse using the new developed reference guide is 89.4% after CQI program.