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Submitting author: Ms Y P WAN

Post title: Nurse Consultant, TMH, NTWC

Pressure Injury Prevention Care Bundle in Department of Surgery in preventing hospital-acquired pressure injuries for critically ill and high risk surgical patients

Wan YP (1), Leung SK(1), Lo KC Salina (1), Li YS (2)

(1) Department of Surgery, Tuen Mun Hospital, NTWC

(2) Nursing Service Division, NTWC

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Introduction

Incidence of hospital-acquired pressure injuries has risen to 0.971% per 1000 bed days (N=41) in the first seven months of 2016 in the Department of Surgery, Tuen Mun Hospital, when compared with total of 0.648% (N=47) reported in 2015. The Pneumonia Prevention Program was started in one of the surgical teams from May 2016. Preventive measures include head-of-bed elevation to at least 30 degree and sit up at all meal. With these approaches, a surge of sacral pressure injuries is therefore foreseeable. Hence, a new collaborative pressure injury prevention care bundle was accordingly implemented for this high risk population in August 2016.

Objectives

- 1. To proactively minimize incidence of hospital-acquired pressure injury among high-risk patients in surgical wards.
- 2. Determine effectiveness of prophylactic dressing in preventing sacral pressure injury.
- 3. Promote pressure injuries healing and minimize pressure injuries dressing time.
- 4. Identify patient characteristics and variables as potential factors in correlation to pressure injury.

Methodology

The program was conducted in 6 surgical wards in Tuen Mun Hospital. Patients were initiated with prophylactic dressing once they met any one of the following inclusion criteria.

Group 1. Enrolled in Pneumonia Prevention Program (with DAGDA score > 8) (DAGDA: Dependence of activity of daily living, ASA score, General anaesthesia, Dyspnoea before operation, Ascites)

Group 2. Norton Score ≤ 12 with increases skin moisture and BMI <16

Group 3. Mechanical ventilation > 48 hours

All patients also received standard pressure injury prevention interventions which include: skin care, continence care, nutritional care and repositioning. Ward staff assessed dressing integrity and skin condition daily. Dressing should be changed in every 4 days or as required. Also, all findings were daily recorded in evaluation forms. Interim result was reviewed 8 months afterwards. Variables associated with pressure injury, healing progress of pressure injuries and nursing time in dressing were evaluated.

Result

108 patients were recommended to join the program from September 2016 to August 2017. Total 59 patients were included. 69.5% (N=41) male and 30.5% (N=18) female, and mean age was 74.37 (min= 22, max= 94). Patients classified as group 1 was with 54.24% (N=32), group 2 with 25.42% (N=15), and 20.33% (N=12) in group 3. In that period, incidence of pressure injury was 15.23% (N=9). Dressing frequency in group 2 patient significantly decreased from 2 to 3 times daily to once every 3.65 days. Incidence rate of pressure injury at stage 2 or above has decreased by 22%, and overall number of incidence has reduced by 25%.