Contemporary Tracheostomy Clinical Management in a Respiratory Ward: A Continuous Quality Improvement Program

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Introduction
Tracheostomy is regarded as a high-risk care and associated with patient safety. Mismanagement leading to airway occlusion could be fatal. In nursing education, tracheostomy is introduced as airway management its emergency management are not included. The handover communication and observation were also found inadequate.

Objectives
The aims of the program are to (i) improve handover communication and documentation and (ii) prevent complications and have the preparedness of emergency among staff.

Methodology
The tracheostomy care working process was reengineered in respiratory wards. It included the following items:
(1) Tracheostomy records and observation chart
It helps assessing and assisting the management of patients with complex health conditions. The risk of emergency can also be identified. The back page is a guideline to remind the proper management of high risk procedure like capping a tracheostomy tube during trial of weaning.
(2) Nursing care report
It reminds and records the intervention of care like dressing and oral care.
(3) Emergency workflow poster and emergency equipment box
They are placed in bedside with tracheostomized patients to increase the awareness and preparedness in tracheostomy emergency. The poster includes the management of tube obstruction, dislodgement, displacement and bleeding.
(4) Regular Training Session
It focuses on clarifying the concept such as types of tracheostomy (permanent and temporary). It also introduces the standard of tracheostomy care and emergency
management.
Systematic Approach
(1) combining with (2) can help staff to assess and adjusts plans by monitoring variation in wellness and illness. It can also help prevent the complication and tracheostomy emergencies. When emergencies happen, (1) combining with (3), the staff then can rapidly assess client's unstable and complex health care problems from (1), they can then manage the emergency appropriately. (4) can reinforce the work process by knowledge input to staff.

Result
There were 38 admissions of tracheostomy cases during study period. Staff's tracheostomy knowledge and self-efficacy of performing tracheostomy care were evaluated (N=31). Both of them showed with a great improvement with statistically significant (P<0.0001, paired t-test). The compliance rate was 100% (N=10) in an audit of tracheostomy care.
To conclude, the project could improve the quality of tracheostomy care by achieving the aims (i) & (ii).