Enhancement of Care for Patients with Chest Drainage

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Introduction
Chest drainage is a common treatment for patients in clinical settings. The total consumption of chest drain bottle from September 2014 to August 2016 was 159 in a respiratory medicine ward (B5 ward) and 270 in all wards of Ruttonjee Hospital (RH) respectively. Any chest drainage related incidents may result in extended hospitalization and increased mortality such as drain dislodgement and unintended clamping. As the consumption of chest drainage in B5 ward is high (~59%) in RH, this program has been designed to explore and identify areas for improvement in caring these patients in B5 ward since September 2016.

Objectives
1. To identify clinical risks on caring patients with chest drainage.
2. To align and standardize the nursing care on patients with chest drainage according to HAHO’s nursing standards and updated evidence.
3. To enhance competence of nursing staff on caring patients with chest drainage.

Methodology
1. Problem Statement
   1.1 A CQI working group of CQI team was formed to review current nursing practice of caring patients with chest drainage; identify the clinical risks; and make recommendations.
2. Analyze
   2.1 Factors affecting the clinical risks of caring patients with chest drainage were identified and summarized by a fishbone diagram.
3. Develop
   3.1 An action plan was developed for the project.
4. Execute
   4.1 Standardized practices in caring patients with chest drainage were established.
   4.2 Patient education material was developed including education board and education information sheets.
   4.3 Staff Training Sessions includes 15 minutes lecture and 10 minutes workshop
were conducted for all nursing staff in B5 ward.

**Result**
The CQI project was carried out from September 2016 to January 2017. A fishbone diagram was used to analyze the factors causing the existing clinical risks. Recommendations were made afterwards. Patient education material was developed. Nursing practices were standardized such as type of dressing on insertion site, frequency of changing dressing and pain management. Total 22 nursing staff and nursing student in the respiratory medicine ward were completed the training session. Further CQI for patients with different pleural diseases and related care including patients with chest drainage will be conducted in 2017.