Improvement Measures to 93 Emergency Trolleys at a regional Hospital in Hong Kong: the Audit with Follow up Actions

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Introduction
Successful cardio pulmonary resuscitation (CPR) for cardiac arrest in hospitals require well equipped Emergency trolleys (E trolleys), as well as skillful health care staffs in performing CPR. Since 2012, E trolley contents arrangement and content checklist have been standardized in the hospital. The aim of this compliance audit was to follow up whether the E trolleys met the expected standards. The contents of the E trolleys in 93 wards were audited. Follow up improvement actions as recommended by the audit were conducted in order to maintain the quality standard.

Objectives
1. To check the compliance of the contents of E trolleys;
2. To identify areas for improvement;
3. To implement improvement actions.

Methodology
7 items audit checklist was developed based on hospital standardized emergency trolley checklist. Validity test was performed in order to ensure the audit tool could meet the project objectives. Compliance audit to E trolleys was performed in October 2016 by 8 qualified experienced nurses. In the audit, all E trolleys in 70 wards / units in 14 clinical departments in the hospital were reviewed (number = 93). The overall compliance rate of audit was 98.3%. 90.32% (n = 84) E Trolleys achieved 100% compliance rate. Main reasons of non-compliance of Audit were overstock (6.45% (n = 6)) and missing items (2.15% (n = 2)). In 90 E trolleys equipped with Defibrillator (96.77% of all E trolleys), 98.8% (n =
89) E trolleys had daily functional checking and documentation. The audit results were disseminated to nurses through various meetings and the report was uploaded Nursing Services Division homepage. After the audit, good practice such as storage of high risk look-alike-sound-alike drugs, were shared among department to recognize their effort. Individual department was received audit report and recommendations related to their ward / units. Improvement plans including standardization of E trolleys & defibrillators checking record book in department level were planned, to maintain the consistence of checking and records keeping. E trolley settings were planned to be reviewed in hospital level for better equipment storage. Annual E trolley audit would be performed to monitor the consistence of improvement measures.

**Result**

Rooms for further improvement on E trolleys settings and record to meet clinical needs were identified. The audit and follow up improvement measures become indispensable elements on enhancement of efficiency and quality in cardio pulmonary resuscitation.