



Service Priorities and Programmes Electronic Presentations

Convention ID: 795

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Boost Inexperienced Nursing Staff Competence through the Use of OR Crisis Checklists: A Simulation-based Trial

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Keywords:

Inexperienced Nursing Staff

Staff Competence

OR Crisis Checklists

Simulation

Introduction

Operating room (OR) crises are high risk, stressful events that require rapid and coordinated care in a time-critical setting especially in those low volume events such as malignant hyperthermia. Successful management is even more difficult and complex if there is a staff-mix problem existing in the department. We hypothesized that the use of OR crisis checklists could aid inexperienced OR nurses' performance during those critical events.

Objectives

We sought to:

1. encourage the use of crisis checklists during a critical event to prevent further mistakes and to ensure reliable communication and operations in OR.
2. evaluate the effectiveness of the crisis checklists to improve adherence to evidence-based best practices during critical events.
3. evaluate the usefulness of the crisis checklists to improve inexperienced nursing staff performance level.

Methodology

Nurses with OR experiences less than 3 years had participated in a series of OR crisis scenarios in a simulated operating room. Each team managed 3 simulations with a set of checklists available and 3 alone from their own experience. The main outcome measure was failure to adhere to critical processes of care. Participants were also surveyed regarding their perceptions of the usefulness of the checklists in helping their performance level.

Result

Results:

A simulation training workshop was conducted in Dec 2016 at HKEC Simulation Training Centre. A total of 23 nursing staff with OR experiences less than 3 years participated in 3 simulated OR crisis scenarios including malignant hyperthermia, difficult intubation and cardiac arrest. Nursing Teams using checklists were 19.23 percent less likely to miss key life-saving steps in care during emergency situations than those working with their experience alone. (23.07% of steps missed when checklist was available vs. 42.3% when they were unavailable). A total of 100% of the participants reported that they would perform better if crisis checklists were available when OR crisis occurred.

Outcome / Conclusions:

This simulation study suggested that use of a set of carefully crafted checklists during an operating room crisis demonstrating tremendous potential to markedly improve patient care and safety. It may also be a useful method of improving staff performance particularly for those inexperienced staff.