

INTRODUCTION

Medical Emergency Teams (METs) are designed to provide critical care at the point of need. Early defibrillation is one cornerstone of this critical care delivery. Unfortunately, time to defibrillation outside the ICU remains unacceptably long. This has been documented through the use of clinical observations, mock codes, and code data analysis within our acute care institution. Early problem recognition, trained responder activation, appropriate initial interventions, and rapid defibrillation for sudden cardiac arrest are key components in the chain of survival for hospitalized patients. “The First 5 Minutes,” a simulation-based education and training program for non-ICU nurses and respiratory therapists, was developed to facilitate completion of key resuscitative tasks prior to MET arrival.

PURPOSE

The purpose of “The First 5 Minutes” is to: (1) provide faculty-led, simulated crisis training in a variety of locations outside the simulation center; 2) teach early identification of crisis situations and implementation of appropriate emergency measures (3) establish standardized behaviors for first responders; (4) assess staff perception of simulation training and applicability to “real life” situations; and (5) improve patient outcomes.

SUBJECTS AND SETTING

Subjects:

Non-ICU nurses, respiratory therapists and ancillary healthcare staff

Setting:

- A large university medical center
- Learning environment similar to a patient room with an emergency cart nearby to facilitate “patient” treatment

METHODS

Curriculum:

- Thirty minute simulation session
- **No individual performance appraisal implications**
- Introduction to the program objectives and content
- Simulator overview
- Initial cardiac arrest scenario with two - four participants
- Facilitator led debriefing/critique session
- Second (identical) cardiac arrest scenario with participants changing roles
- Second debriefing/critique session

Equipment:

- Patient bed or stretcher
- Crash cart
- Defibrillator
- Laerdal SimMan®

Instruments:

- Pre and post survey to assess perceptions of the use of simulation in the course
- Pre and post test to assess cognitive knowledge related to identification of crisis situations and implementation of appropriate emergency measures
- Pre-programmed simulation scenario and detailed checklist, including call for help, pad application, and proper defibrillation (See example 1)
- Data electronically obtained utilizing the Laerdal SimMan® and recorded into a laptop computer with SimMan® software to:
 - assess psychomotor skills
 - tally completion of standardized (desired) behaviors
 - determine time frame for completion of the different skills
 - compare performance between the two scenarios

Data Collection:

- Currently in progress

CONCLUSIONS

- Utilizing a portable Laerdal SimMan®, a structured curriculum, and a short time frame allows healthcare workers to easily attend and participate in simulated crisis training in a variety of areas in the hospital
- We hypothesize that “The First Five Minutes” training for early intervention will:
 - improve identification of critical incidents
 - facilitate implementation of standardized initial responses to medical emergencies
 - decrease time to simulated defibrillation, and may promote improved patient outcomes
- Assessment of staff perceptions and knowledge pre/post simulation training will provide valuable information related to the efficiency and effectiveness of this emergency response education
- Findings will be analyzed to determine future training needs and methods

Example 1. Pre-Programmed Checklist

