



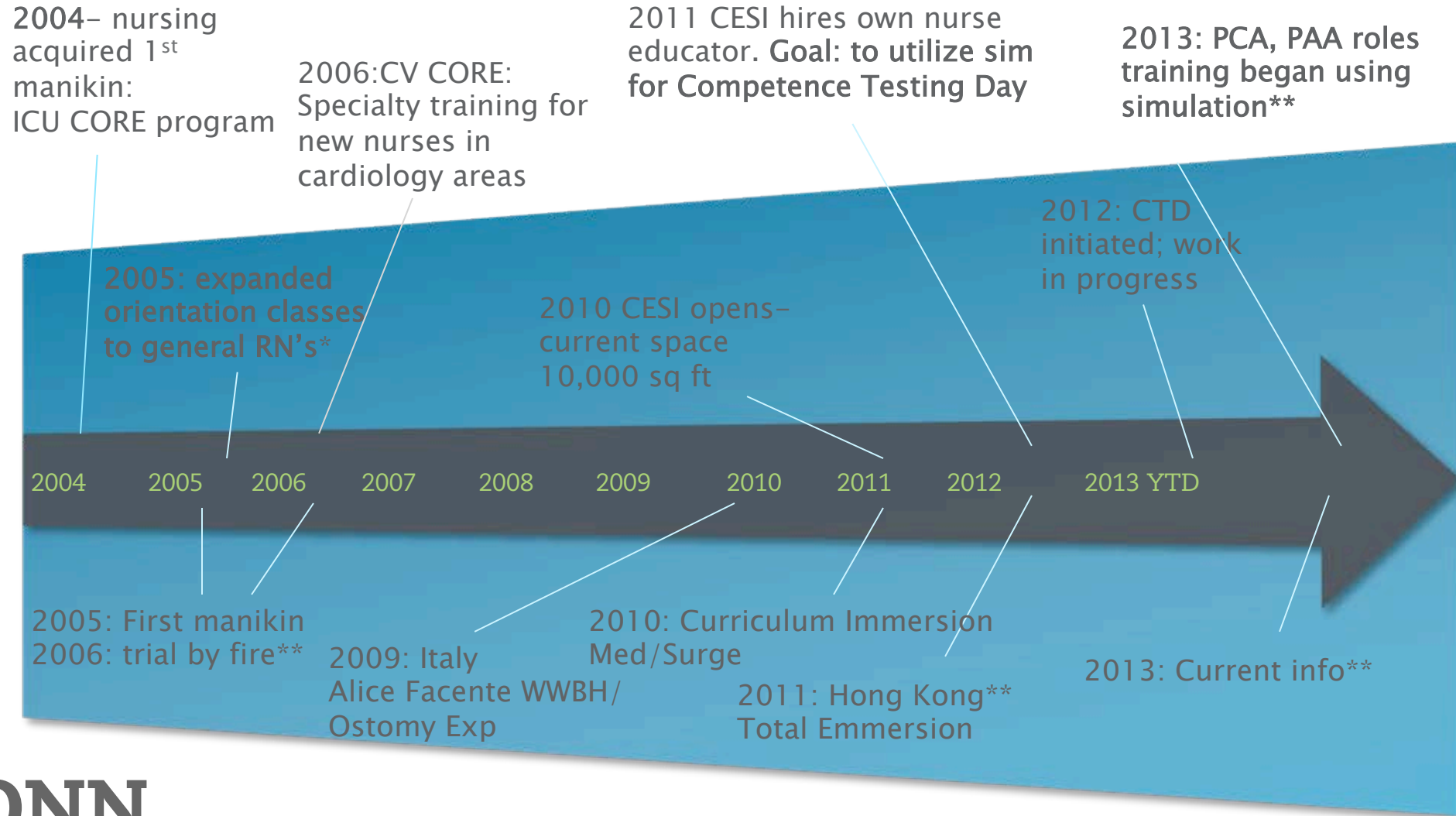
Simulation Education: Setting Standards in both the University and Acute Care Settings

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Evolution of Simulation use by Nursing

HH



UConn

Where do we begin the discussion

- Simulation Standards
 - International Nursing Association for Clinical Simulation Learning (**INACSL**)
 - Gets us all on the same page
 - Begins to migrate nursing simulation research into mainstream medicine
- Standards 1-7



Standards ToolBox



Standard 1: Terminology

Statement: Consistent terminology provides guidance and clear communication and reflects shared values in simulation experiences, research, and publications. Knowledge and ideas are clearly communicated with consistent terminology to advance the science of simulation.

Standard 2: Professional integrity of participant

Statement: The simulation learning assessment, and evaluation environments will be areas where mutual respect among participants and facilitator(s) is expected and supported. As such, it is essential to provide clear expectations for the attitudes and behaviors of simulation participants.

Standard 3: Participant Objectives

Statement: All simulation-based learning experiences begin with development of clearly written participant objectives, which are available prior to the experience

Standards ToolBox



Standard 4: Facilitation

Statement: Multiple methods of facilitation are available, and use of a specific method is dependent on the learning needs of the participant(s) and the expected outcomes

Standard 5: Facilitator

Statement: A proficient facilitator is required to manage the complexity of all aspects of simulation. The facilitator has specific simulation education provided by formal coursework, continuing education offerings, and targeted work with an experienced mentor.

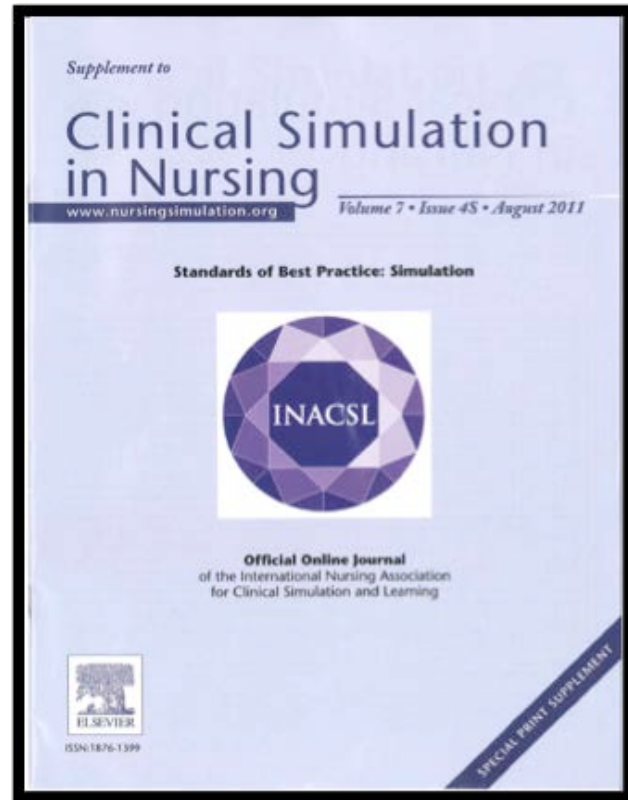
Standard 6: Debrief

Statement: All simulation-based learning experiences should include a planned debriefing session aimed toward promoting reflective thinking.

Standard 7: Participant Objectives

Statement: In a simulation-based experience, formative assessment or summative evaluation can be used.

INACSL's Official Journal: *Clinical Simulation in Nursing*



To learn more scan here



or visit:

Now lets incorporate them into acute practice with HH data-

How We Assessed Competence Prior to Simulation

- In FY 2011:
 - 14 individualized stations (avg) for an RN
 - average time for below stations: 28-32 min
 - 2534 staff came through the following stations:

Station	Pass Rate
Airway Management	100% (1285/1285)
Cardiac Drug Box	100% (1211/1211)
CPR Adult	99.91% (1062/1063)
Zoll Defibrillator	99.86% (1440/1442)
TOTAL	99.88% (2531/2534)

We wanted to move away from assessing knowledge ONLY when we saw pass rate 99.88% for these high risk low frequency skills

How can we set expectations to be more rigorous than in prior years?

Blooms Taxonomy

- *Cognitive Domain (knowledge)*
- *Psychomotor Domain (skills)*
- *Affective Domain (attitude)*

- Simulation- will realistically expect skills to be performed simultaneously
- Teamwork and communication become essential to achieve a **good patient outcome**



Standard 2: Professional Integrity of Participant(s)

It is essential to provide clear expectations for the attitudes and behaviors of simulation participants. Professional integrity related to confidentiality of the performances, scenario content, and participant experience is required during and after any simulation. Confidentiality is expected in live, recorded, or virtual simulation experiences.

Literature- Assessing the General RN's Competence with Simulation

“Educators tend to see competency as a blending of knowledge, skills, attitudes and judgment based more on a psychological construct”

(Whittaker, 2000)

- Research studies of simulated competence assessment in general RN practice was extremely limited.
- More volume of data when assessing a homogenous nursing group- i.e. CRNA's, senior nursing students.

Standard 3: Participant Objectives



All simulation-based learning experiences begin with development of clearly written participant objectives, which are available prior to the experience.

▶ **Criterion 1** Address domains of learning

Guideline: Participant objectives should include the domains of learning.

▶ **Criterion 2** Correspond to participant's knowledge level and experience

Guideline: Participant objectives should be appropriate to the level of the participant.

▶ **Criterion 3** Remain congruent with overall program outcomes

Guideline: Participant objectives should be congruent with overall program outcomes.

How we transformed RN Competence Assessment in 2012



- BLS response skills seemed to span all clinical areas as a requirement and touch on all three domains
- AHA served as a universally accepted framework for assessment and evaluation parameters

How we transformed RN Competence Assessment in 2012

- **Defined the Scope**

- Inpatient RN' s only at first
- Anticipated 1270 RN' s
- Teams of 3-4 RN' s
- 30 minute time blocks

- **Simulated an Emergency**

- One 3-6 minute scenario
- Clearly defined objectives
- VF or pulseless VT based on skill

- **Leveled the Playing Field**

- Mandatory online orientation
 - Simulation orientation video
 - Playing in waiting room
- Physical orientation to room
 - 5-10 minutes long
 - Scripted for consistency
 - Immediately before scenario

Major considerations in moving to simulated method:



- Needed to train 6 nurse educators to simulation use
 - Orientation
 - Running standardized cases
 - Provider role standardization: pre-recorded vocal sounds allowed for provider interaction/ordering in a non-coaching manner
 - Documenting and debriefing a case

Standard 5: Facilitator

Statement: A proficient facilitator is required to manage the complexity of all aspects of simulation. The facilitator has specific simulation education provided by formal coursework, continuing education offerings, and targeted work with an experienced mentor.

Video clip





Standard 7: Evaluation of Expected Outcomes

In a simulation-based experience, formative assessment or summative evaluation can be used.

- ▶ **Criterion 1** Formative assessment

Guideline: Formative feedback provides information for the purpose of improving performance and behaviors associated with the three domains of learning: cognitive (knowledge), affective (attitude), and psychomotor (skills).

- ▶ **Criterion 2** Summative evaluation

Guideline: Summative evaluation focuses on measurement of outcomes or achievement of objectives.

- ▶ **Criterion 3** High-stakes evaluation

Guideline: Because familiarity with participants is a significant source of observer bias, the influence of observers' previous knowledge of participants should be avoided whenever possible.



Competency Testing Day 2012

Friday, May 25, 2012 - 10:18 AM



Simulation Details

Instructor: Ginger Goddu

Scenario: VF ACLS

Length: 08:46

Students

Nurse 1:



Christopher Madison
Simulation Center

Nurse 2:



Liza Nowicki
Simulation Center

Nurse 3:



Donna Rescorl
Nursing Service Office

Critical Objectives

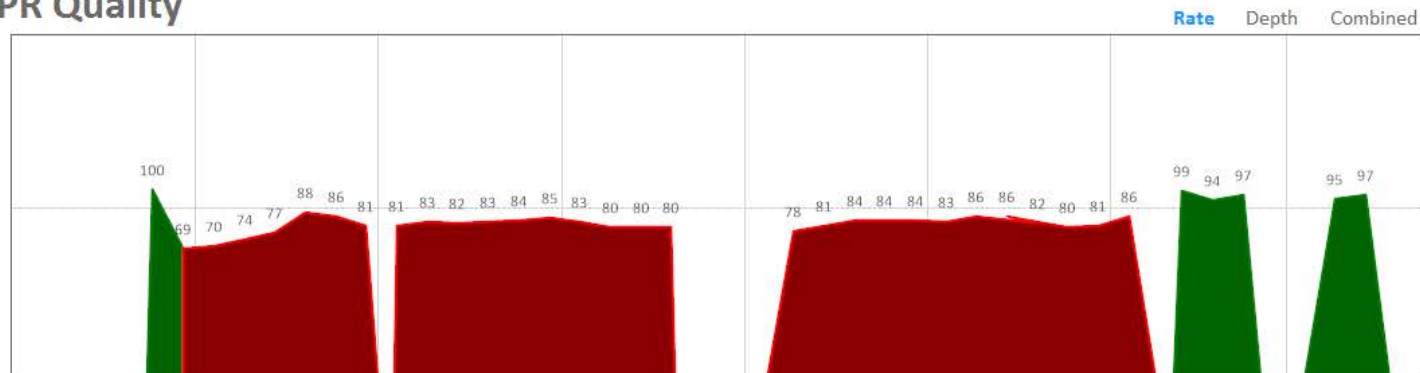
- ✓ Recognize a change in patient condition and call for help within 30 seconds.
- ✓ Demonstrate correct techniques per AHA standards to ensure adequate patient ventilation.
- ✗ Perform chest compressions per AHA standards within 10 seconds of recognition of pulselessness.
 - ✓ Start CPR within 10 seconds of pulse check.
 - ✗ CPR quality meets AHA guidelines.
 - ✓ Place backboard within 3 minutes.
- ✓ Employ the ZOLL defibrillator per AHA standards and as needed for patient case.
- ✓ Administer all medications that are ordered according to HH policy for medication administration.

Number of Prompts Needed: 2

SimMan Log

- 00:00 - START CASE
- 00:21 - Call Code*
- 00:24 - Pulse Checked: Carotid
- 00:34 - Places Backboard*
- 00:44 - Start Compressions (20s after pulse)
- 00:46 - Check Patient
- 00:56 - Compressions Inadequate
- 01:49 - Airway: BVM start/stop
- 01:51 - Pulse Checked: Carotid
- 01:53 - Analyze/Charge*
- 01:56 - Airway: BVM start/stop
- 02:00 - Stop Compressions (01:16)
- 02:02 - Defibrillated at 150J
- 02:04 - Zoll Pads Attached
- 02:05 - Start Compressions
- 02:09 - Pulse Checked: Carotid
- 02:26 - Needed Prompt
- 02:27 - Needed Prompt
- 02:30 - Airway: BVM start/stop
- 02:33 - Pulse Checked: Carotid
- 02:36 - Airway: BVM start/stop
- 03:37 - Stop Compressions (01:32)
- 04:02 - Defibrillated at 200J
- 04:07 - Start Compressions
- 04:52 - Airway: BVM start/stop
- 05:00 - Airway: BVM start/stop
- 06:15 - Stop Compressions (02:08)
- 06:16 - Defibrillated at 300J

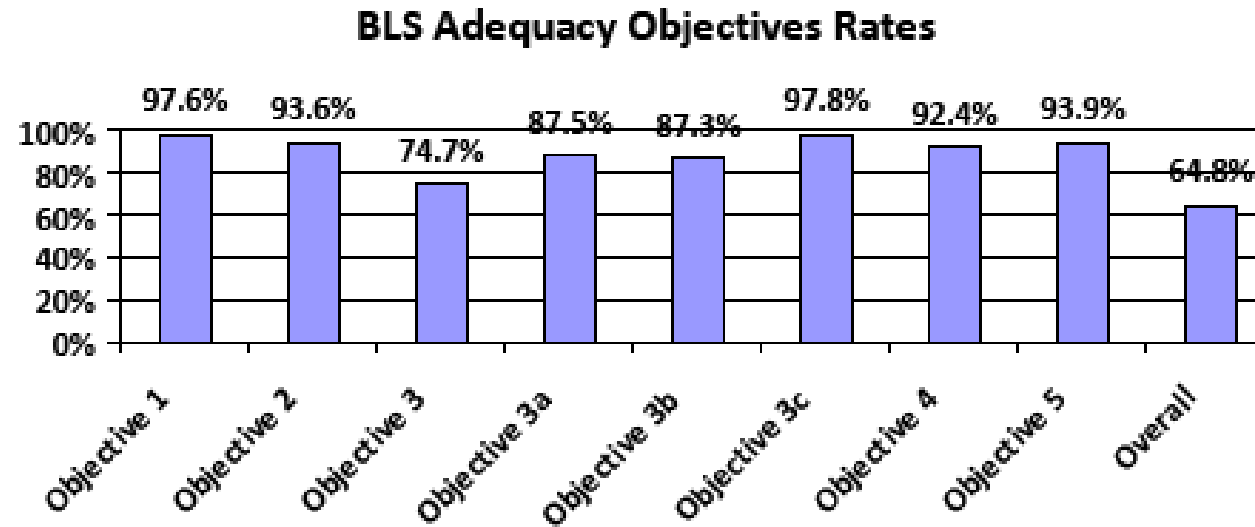
CPR Quality



Video clip



2012 Overall Findings



Obj 1: Recognize a change in patient condition and call for help within 30 seconds

Obj 2: Demonstrate correct technique per AHA standards to ensure adequate patient ventilation

Obj 3: Perform chest compressions per AHA standards within 10 seconds* of recognition of pulselessness:

Obj 3a: start CPR within 10 seconds* of pulse check

Obj 3b: CPR quality meets AHA expectations

Obj 3c: Places backboard within 3 minutes

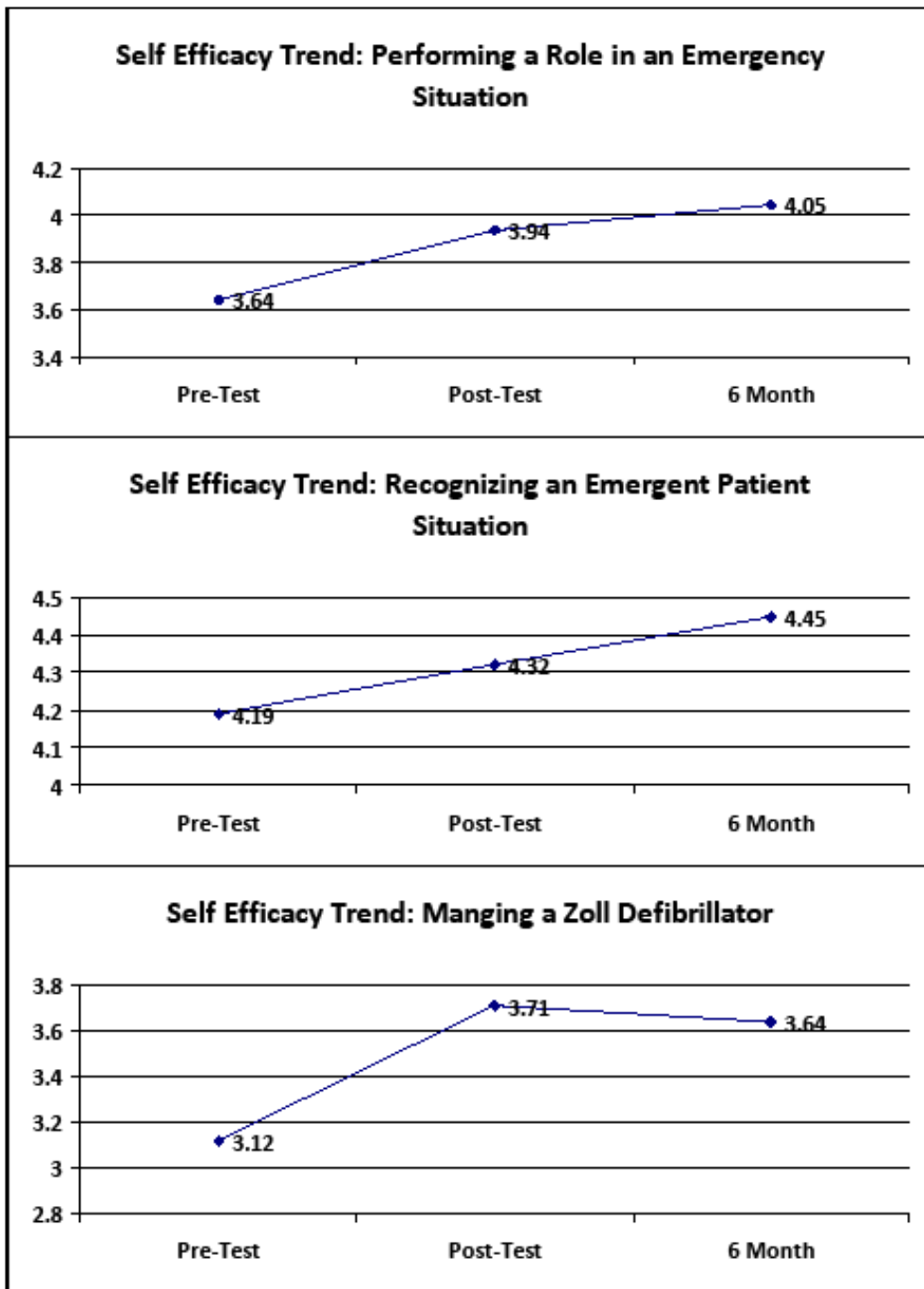
Obj 4: Employ the Zoll defibrillator per AHA standards and as needed for patient case

Obj 5: Administer all medications that are ordered according to HH policy for medication administration

Self Efficacy Findings

“Had to do airway bag mask on a post op today. Just like at CESI yesterday....I was happy that I knew what I was doing! It really did help. I am not very confident w myself and I have to say it helped me feel better that I was doing it correctly”

(Competency Day Participant, 2012)



Questions

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