QSEN & INACSL Standards – examples of Research in Simulation

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The Simulation User Network Conference (SUN)
April 1-3, 2014
San Diego, CA, USA
Providing quality and safe care to make a difference in people’s lives is why we chose our professions.
Tripartite
Our Foci are in Alignment

Practice

+ Academia

→ Patient
Identify strategies to integrate the QSEN Competencies with the INACSL Standards of Best Practice (2013)

Recommend methods to use this integrated framework for simulation to improve safe and quality care.

Collaboratively develop additional ideas for implementation of QSEN competencies and INACSL Standards to improve safety and quality of care using simulation in various environments.
Patient Safety

- **What is the issue?**
  - 20% chance of dying from adverse event
  - of 270,491 deaths, **238,337** were potentially preventable (2004-2006) [88%]
  - 1999 IOM report 100,000 deaths annually
    - 273 per day
    - 11 per hour
    - 1 every five minutes
    - OR one - two 747 crash each day for a year
  - 400,000+ medication errors per year
  - $8-29 billion spent annually
Sentinel Event

... is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.

Called “sentinel” because signal the need for immediate investigation and response.
Not all sentinel events occur because of an error

Not all errors result in sentinel events

http://www.jointcommission.org/assets/1/18/Event_Type_by_Year_1995_4Q2012.pdf
Root Causes of Sentinel Events
(All categories; 1995-2004)

- Communication
- Orientation/training
- Patient assessment
- Staffing
- Availability of info
- Competency/credentialing
- Procedural compliance
- Environ., safety / security
- Leadership
- Continuum of care
- Care planning
- Organization culture

Percent of 2966 events
All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.

Committee on Health Professions Education Institute of Medicine (2003)
What is Patient Safety?

avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the processes of healthcare. These include errors, deviations, and accidents.

as defined by National Patient Safety Foundation
Our world

What are we?
- NASA
- Nuclear Power Plants
- Military
- Airlines
- Healthcare?

HIGH RELIABILITY ORGANIZATIONS
Most Trusted Professionals

- Nursing
- Pharmacist
- Medical Doctors

We carry the burden of providing quality and safe patient care.

Gallup November 2012
Healthcare and Communication

- Healthcare high-risk business
  - because people are sick *often complexly so*
  - care delivered in a fast-moving, high-pressured environment
  - involving complex technology
  - involving lot of people

- Heart operation can involve a team of up to 60 people
  - ~ same number needed to run a jumbo jet

Liam Donaldson, WHO, 2011
How to leverage Research found in

- INACSL Standards
- National initiatives
  - QSEN
  - TeamSTEPPs
  - IPEC competencies

Using simulation to educate next generation of practitioners
QSEN Competencies

- Patient-centered Care
- Teamwork & Collaboration
- Evidence-based Practice
- Quality Improvement
- Safety
- Informatics

Cronenwett, et al, 2007
<table>
<thead>
<tr>
<th>Competency</th>
<th>What does it mean?</th>
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<tbody>
<tr>
<td>Patient-centered care</td>
<td>Base care decisions on knowledge of patient values and preference; include patient and family as partners in care</td>
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<tr>
<td>Teamwork and collaboration</td>
<td>Use personal strengths to foster effective team functioning. Integrate quality and safety science; communicate across diverse team members</td>
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<tr>
<td>Quality improvement</td>
<td>Integrate QI into nursing role by using quality tools, evidence, patient preferences, and benchmark data to assess current practice</td>
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<tr>
<td>Evidence based practice</td>
<td>Ask questions. Use technology to identify latest evidence to determine best practices, evidence based standards.</td>
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<tr>
<td>Safety</td>
<td>Constantly ask how actions affect patient risk? Where is the next error likely to occur? What actions will prevent near misses?</td>
</tr>
<tr>
<td>Informatics</td>
<td>Use technology to improve and manage care. Provide experiences with EHR.</td>
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Team Strategies and Tools to Enhance Performance and Patient Safety
TeamSTEPPS

Team Strategies and Tools to Enhance Performance and Patient Safety

- Developed by the Department of Defense’s Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality

- A teamwork system designed for health-care professionals to:
  - Improve patient safety
  - Improve communication and teamwork skills among health care professionals
Two-Challenge Rule

Invoked when an initial assertion is ignored...

It is your **responsibility** to assertively voice your concern at least **two times** to ensure that it has been heard.

The member being challenged must acknowledge.

If the outcome is still not acceptable

- Take a stronger course of action
- Use supervisor or chain of command

http://teamstepps.ahrq.gov/
Please Use CUS Words
but *only* when appropriate!
Learn from mistakes

- Discuss near misses
- Talk about errors that have happened
- Use AHRQ M&M to build simulated learning events
• Putting faces with Medical Error

• Considering how interprofessional communication, collaboration and teamwork could avoid tragic errors.

• Let’s consider Lewis’ story
Reason’s Swiss Cheese Model

Defenses prevent error

http://patientsafetyed.duhs.duke.edu/module_e/swiss_cheese.html
Case Study – Key events

- **Day 1**
  - Pectus Excavatum 15-year old (co-morbidity – asthma)
  - Epidural analgesic Ketorolac (NSAID) for pain management
  - Bed space admitted to pediatric oncology versus

- **Day 2**
  - not eating yet diet increased
  - lots of uncontrolled pain
  - unable to ambulate without help

- **Day 3**
  - 112/56 70-80 bpm sips of water and nausea
  - Pain 2-4 Scale of 5
Case Study – Key events

- Day 4
  - 5/5 severe, sudden abdominal pain
  - No water, no solid food, no ambulation
  - 152/86 115 bpm pain due to constipation – oxycodone added
  - black circles under eyes, diaphoresis, distended abdomen

- Pain decreased but Vital Signs not matching – HR double, chest and belly tense

- Always ask What is the WORSE it can be?????
  - constipation and gas – young boy?
Case Study – Key events

- **Day 5**
  - SpO2 85 applied O2, 137/85 HR 142
  - 4 am Severe abd pain 140/100 HR 140, R 28, pale nausea/weak
  - Few hours later pain suddenly gone away
Premature closure – confirmation biases

- Correct diagnosis never given consideration
- Look at data to reassure current diagnosis and thus ignore data that conflicts.
- May remain confident about diagnosis despite confictions
- Become certain of diagnosis early on → patient harm
  - Ileus/gas pain – ride it out
Halo effect - TeamSTEPPS

- Wrong way Parker
  https://www.youtube.com/watch?v=yDwraPv9f5Q
Premature Closure - anchoring

- Reflect a few minutes about what you did when you saw a student prematurely decide on a diagnosis or course of action.
Patient-centered Care

- Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient’s preferences, values, and needs
Involving family

- Newspaper new, safe min invasive – offered perfection – talked of promise not risk.
- Surgery expected to be hard, intensive and recovery arduous but less invasive.
- Enlist family’s help
  - Surveillance
  - Reporting
  - Noting trends
Uncertainty ??

- We are uncomfortable disclosing uncertainty – don’t want to look indecisive
- Confidence valued over uncertainty
- Hard to change once an idea has momentum

- How would you express your uncertainty?
- How do you want your learners to express uncertainty?
Autopsy Results

- 2000 mL’s blood in abdomen
- Duodenum ulceration - perforation posterior wall – eroded into gastro duodenum artery
- 4 year before Ketorolac identified as post-op GI bleed - Black box warning
Evidence-based Practice

- Integrate best current evidence with clinical expertise and patient/family preferences and values for delivery of optimal healthcare.
Reason’s Swiss Cheese Model
Holes line-up and Error Occurs

http://patientsafetyed.duhs.duke.edu/module_e/swiss_cheese.html
Using Safety Language

- Talk out loud about what the safety surveillance we do automatically
- Use safety language
- Module expressing concern CUS words
Engaging learners with questions

What stands out?

What are you concerned about for the patient?

What action will you take? Why? What else could it be?

May omit data so learners have to discover/seek information to make decisions

Insert new data to help them learn to speak up
Teamwork & Collaboration

- Function effectively in nursing and interprofessional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care
Behaviors and attitudes in Teamwork & Collaboration

- Who has critical information to share with the team?
- Standardized communication:
  - Shared mental models of what is to happen
  - Checklist of critical information insures care coordination in transition of providers
  - SBAR (situation, background, assessment, recommendation)
  - Check back: repeat back
  - Call out: make sure everyone has the information
  - Mutual support: watch each other’s back
  - Handoffs/Handovers during transitions in care
Interprofessional Collaboration

- Effective IPE prepares a **collaborative practice-ready workforce**
  - Received effective training in interprofessional education
    - Students from two or more professions
      - learn about, from and with each other
      - collaborate to improve outcomes
- **Key** to strengthening health systems moving them from fragmentation to collaboration to improve health outcomes for patients

*WHO Framework for Action on Interprofessional Education & Collaborative Practice*
Lecture *alone* will not create the behavior change required.

We expect our learners to go beyond *learning* knowledge . . .

to *application* of the knowledge.

- Goethe
“What is essential for nursing [interprofessional] educators is helping students make the connections between acquiring and using knowledge. We call this teaching for a sense of salience.”

Joint Commission
2013 National Patient Safety Goals for Hospitals

- Identify patients correctly
- Improve staff communication
- Use medicines safely
- Prevent Infection
- Identify patient safety risks
- Prevent mistakes in surgery

http://www.jointcommission.org/assets/1/6/2013_HAP_NPSG_final_10-23.pdf
Just Culture

- defined as a “culture which seeks to identify and balance system events and personal accountability.
- organization seeks information on all its occurrences, near misses and events as a way to learn and avoid occurrences and incidents in future.
- Employees are able to report patient occurrences or non clinical errors because there is a clear line drawn between human error, at-risk behavior, and reckless behavior.
- where all employees are accountable for their behavioral choices.

David Marx, JD (2007)
Behavioral Choices

- Human error
  - inadvertent action, slip lapse, mistake

- At-risk behavior
  - choice that increases risk, risk not recognized or believed to be justified

- Reckless behavior
  - deliberate disregard of unjustifiable risk
Quality Improvement

- Use data to monitor the outcomes of care processes and use improvement methods to design and text changes to continuously improve the quality and safety of health care systems.

Quality Improvement

Just Culture in **ACTION**

- Injection lab
- Error made . . .
- *Walk the Talk*

http://www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Literature/WhenThingsGoWrongRespondingtoAdverseEvents.htm
Error Disclosure

- Teaching Assistant to Lab Director
- Director to Infectious Disease and Supervisors
- Teaching Assistant to Students
Root cause analysis

- Data Collection
- Casual factor analysis
- Root cause identification
- Recommendation generation
- Implementation
Safety

- Minimize risk of harm to patients and providers through both system effectiveness and individual performance.

Patient Safety

Our intent is to do no harm - so why do errors happen?

CAROL F. DURHAM, EDD, RN, ANEF
JENNIFER DWYER, MSN, RN, BC, CNRN, FNP BC

http://qsen.org/faculty-resources/learning-modules/module-seventeen/
Making the connections
Putting faces to errors
Informatics

- Use information and technology to communicate, manage knowledge, mitigate error, and support decision making

10 units/ml

100 units/ml

1,000 units/ml

10,000 units/ml
The Myth of Multitasking

- Dave Crenshaw
Standards of Best Practice: Simulation
INACSL’s VISION AND MISSION

Vision: To be nursing’s portal to the world of clinical simulation pedagogy and learning environments.

Mission: To promote research and disseminate evidence-based practice standards for clinical simulation methodologies and learning environments.

Standards Core Components

- Statement
- Rationale
- Outcome
- Criteria
- Guidelines
INACSL Standards of Best Practice: Simulation

Standard I: Terminology
Standard II: Professional Integrity of Participant(s)
Standard III: Participant Objectives
Standard IV: Facilitation
Standard V: Facilitator
Standard VI: Debriefing
Standard VII: Assessment & Evaluation
Consistent terminology to advance science of simulation

- provides clear communication in
  - simulation experiences
  - research
  - publications

- reflects shared values

http://dx.doi.org/10.1016/j.ecns.2013.04.001
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<th>Exemplars</th>
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<td>Environmental</td>
<td>Remediation</td>
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<tr>
<td>Psychological</td>
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Beyond definition . . .
Use terminology when planning, implementing
QSEN specifically use terminology of quality and safety

Let’s give it a try ............
Standard II: Professional Integrity of Participant(s)

- Clear expectations for the attitudes and behaviors of simulation participants.
- Professional and ethical behaviors
- Integrity related to confidentiality of
  - performances
  - scenario content
  - participant experience

Criterion 1. Protecting content of scenario and simulation
Guideline: In order to preserve the integrity of simulation scenarios and provide an equitable experience for each participant, confidentiality is essential.

Criterion 2. Demonstrating professional and ethical behavior
Guideline: Participants are expected to demonstrate professional integrity.

Criterion 3. Receiving and providing constructive feedback
Guideline: Participants should receive and provide constructive feedback during simulation and debriefing.

INACSL Standard Professional Integrity of Participant(s) ➔ QSEN

- Honor learning opportunities with patients who represent all aspects of human diversity
- Acknowledge own contributions to effective or ineffective team functioning

- Let’s give it a try .............
Standard III: Participant Objectives

- **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.
Standard III: Participant Objectives (continued)

- **Criterion 4. Incorporate evidence-based practice**
  Guideline: Evidence-based practice should be incorporated into simulation scenario development, implementation, and debriefing through the use of appropriate participant objectives.

- **Criterion 5. Include viewing of client holistically**
  Guideline: Participant objectives should incorporate holistic care.

- **Criterion 6. Be achievable within an appropriate timeframe**
  Guideline: Completion of participant objectives should be achievable within the designated timeframe.
Include quality and/or safety objectives for each simulation
Examine the QSEN KSAs as potential objectives for the Simulation
Highlight the national initiatives used to prepare simulation

Let’s give it a try ............
Standard IV: Facilitation

Multiple methods of facilitation

• method is dependent on the learning needs of the participant(s) and expected outcomes

• Criterion 1. Use facilitation methods congruent with simulation objectives

• Criterion 2. Use facilitation methods congruent with expected outcomes

A proficient facilitator is required to manage the complexity of all aspects of simulation.

- Simulation education
- Formal coursework
- Continuing education
- Apprenticeship with experienced mentor

Standard V: Facilitator (continued)

- Criterion 1. Clearly communicates objectives and expected outcomes to participant(s)
  - prior to the simulation-based experience
  - level of detail revealed to participants will depend on objectives

- Criterion 2. Creates a safe learning environment that supports and encourages active learning, repetitive practice, and reflection

- Criterion 3. Promotes and maintains fidelity
  - fidelity depends on desired outcomes
• Criterion 4. Uses facilitation methods appropriate to participants’ level of learning and experience

• Criterion 5. Assesses and evaluates the acquisition of knowledge, skills, attitudes, and behaviors

• Criterion 6. Models professional integrity

• Criterion 7. Fosters participant learning by providing appropriate support throughout the simulation activity, from preparation through reflection
Standard V: Facilitator (continued)

- Criterion 8. Establishes and obtains evaluation data regarding the effectiveness of the **facilitator** and simulation experience

- Criterion 9. Provides constructive feedback and facilitates debriefing with participants
All simulation-based learning experiences should include a planned debriefing session aimed toward promoting reflective thinking.

http://dx.doi.org/10.1016/j.ecns.2013.04.008
Standard VI: The Debriefing Process (continued)

- Criterion 1 & 3. Facilitated by a person(s) competent in the process of debriefing
  - Observes the simulated experience
  - Clear about responsibilities during debriefing

- Criterion 2. Conducted in an psychologically safe environment that supports confidentiality, trust, open communication, self-analysis, and reflection
Standard VI: The Debriefing Process

- **Criterion 4.** Based on a structured framework for debriefing
  Guideline: Identify the structural elements of debriefing to include the optimal time and duration required to achieve the objectives.

- **Criterion 5.** Congruent with the participants’ objectives and outcomes of the simulation-based learning experience
Deliberately make notes about actions that address the QSEN objectives

Pose questions that cause students to reflect on the safety issues, concerns they might have regarding patient/family

Observe for and reinforce patient centered care.

Let’s give it a try .............
In a simulation-based experience, formative assessment or summative evaluation can be used.

- **Criterion 1. Formative assessment**
  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**
  focuses on measurement of outcomes or *achievement* of objectives.

- **Criterion 3. High-stakes evaluation**

INACSL Standard Evaluation of Expected Outcomes → QSEN

Formative/Summative Evaluation – evaluate the QSEN competencies that are important for this simulation

• Let’s give it a try ............
If Lewis had been ANYWHERE but in a hospital he would be alive today – The hospital was the one place We were not able to get him the medical attention he needed

HELEN HASKILL, MOTHER
Transforming Healthcare

Professional knowledge → Systems Knowledge

Individual Learning → Team Learning

Blame Individual → Just Culture

Discipline focus → Interprofessional focus
“It is simply not acceptable for patients to be harmed by the same health care system that is supposed to offer healing and comfort”
JOIN INACSL - A COMMUNITY OF SIMULATION EDUCATORS

INACSLINFO@INACSL.ORG
Evaluation Tools


International Nursing Association for Clinical Simulation and Learning (INACSL)

- **Journal:** Clinical Simulation in Nursing [http://www.nursingsimulation.org/](http://www.nursingsimulation.org/)
The **Simulation Innovation Resource Center (SIRC)** National League for Nursing

- The SIRC is an online e-learning site for nursing faculty to learn about simulation and ways to integrate it into their curriculum. It provides various ways for faculty to engage with experts and peers. Free downloads – Nursing scenario design template, evaluation tool samples.  


- Purpose is to strengthen patient care through simulation education and research. Conference late January: International Meeting of Simulation in Healthcare (IMSH) Journal: *Simulation in Healthcare*

**Association of Standardized Patient Educators (ASPE)**  

- ASPE is the international organization for professionals in the field of simulated and standardized patient methodology.
Agency for Healthcare Research and Quality

- AHRQ website has a wealth of information and resources including information on evidenced based practice, relevant research, patient teaching information, and consumer information around quality and safety. [http://www.ahrq.gov/](http://www.ahrq.gov/)


Institute for Healthcare Improvement (IHI)

The IHI is a not-for-profit organization leading the improvement of health care throughout the world. IHI website has information about programs, links to patient safety information.  
http://www.ihi.org/IHI/

Institute for Safe Medication Practices (ISMP)
The ISMP is a nonprofit organization that educates healthcare providers and the public about safe medication practices. It has a plethora of resources for safe medication practices.  
http://www.ismp.org/

Institute of Medicine (IOM)
The IOM is a nonprofit organization that provides science based information about health and science policy. http://www.iom.edu/

Institute of Medicine Health Care Quality Initiative:
- To Err is Human: Building A Safer Health System (1999)
- Crossing the Quality Chasm: A New Health System for the 21st Century (2001)
- Health Professions Education: A Bridge to Quality (2003)
Accrediting body for many health care organizations, concerned with improving the safety and quality of patient care.

National Patient Safety Foundation (NPSF) [http://www.npsf.org/](http://www.npsf.org/)
The NPSF is a not-for-profit organization whose mission is to improve the safety of patients.

Quality and Safety Education for Nurses (QSEN) [http://qsen.org/](http://qsen.org/)
The quality and safety competencies are: patient-centered care, teamwork and collaboration, evidenced-based practice, quality improvement, safety, and informatics. Knowledge, skills and attitudes for pre-licensure education are outlined to clarify each competency. This site is a valuable resource because it also offers free downloadable teaching strategies and annotated bibliographies for each of the QSEN competencies.

QSEN.org -videos- The Lewis Blackman Story Helen Haskell is the mother of Lewis Blackman is a 15-year-old boy who died in a hospital following routine surgery. The videos were part of a lecture and interviews with Ms. Haskell recorded at the UNC-Chapel Hill School of Nursing in summer 2009.

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