



**Berdette Reuer, MSN-Ed, RN  
&  
Dr. Albertine Beard**

Sharing our  
Success  
Incorporating  
Simulation into  
Undergraduate  
Interprofessional  
Education



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U.S. Department  
of Veterans Affairs



UNIVERSITY OF MINNESOTA  
Driven to Discover<sup>SM</sup>

# SHARING OUR SUCCESS: INCORPORATING SIMULATION INTO UNDERGRADUATE INTERPROFESSIONAL EDUCATION

Albertine Beard, MD & Berdette Reuer, MSN, RN

**November 8, 2018**

● **Disclosure of Relevant Financial Relationships:** We have **NO** financial relationships to disclose. ●

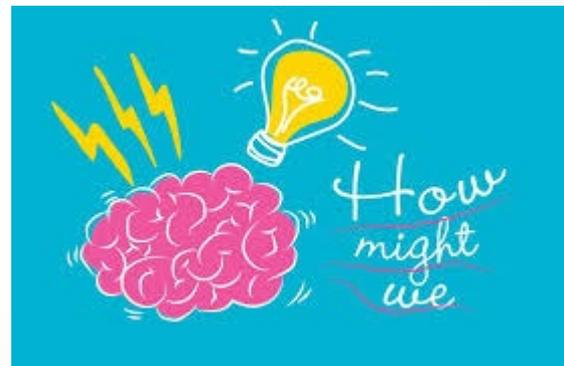
# Objectives

1. Describe the value of interprofessional collaboration through simulation as part of the curriculum in healthcare education.
2. Discuss the communication and professional collaboration between students from different health care professions.
3. Identify ways to incorporate the TeamSTEPPS curriculum into interprofessional education for students.



# Brainstorming

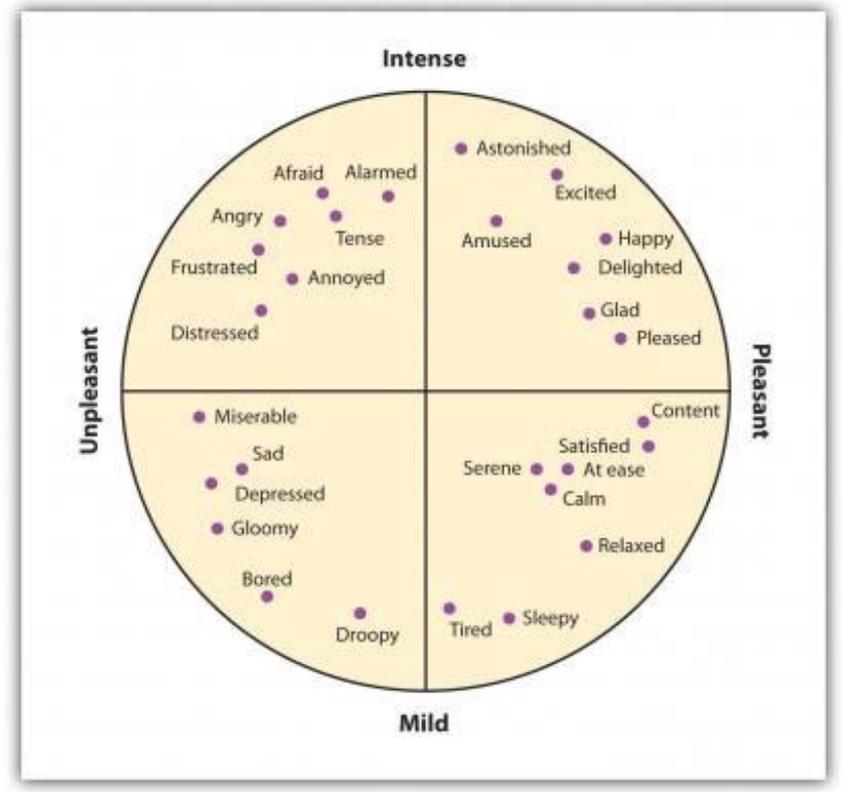
- Call to create interdisciplinary simulation
- Creativity sessions
- Identified group of students



# Priorities

- Realistic, stressful clinical scenarios
- High-fidelity patient
- Parity of professions
- Focus on team function
- Longitudinal

Circumplex Model of Emotion



Russell JA. *Journal of Personality & Social Psychology* 1980; 39: 1161-78

# Who are the Students?

- VALUE
- VANAP
- PHARMACY





# The Starting Point

## A Novel Longitudinal Undergraduate Interprofessional Teamwork & Inpatient Clinical Skills Curriculum using TeamSTEPPS & Simulation

### **Albertine Beard, MD**

Section Chief, Hospital Medicine,  
Minneapolis VA Healthcare System &  
Assistant Professor of Medicine,  
University of Minnesota



### **Berdette Reuer, MSN, RN**

Special Projects Officer &  
Former VANAP Nurse Educator  
Minneapolis VA Healthcare System

# Creating the Curriculum

- VHA SimLEARN  
<https://www.simlearn.va.gov/SIMLEARN/index.asp>
- Quality and Safety Education for Nurses (QSEN)  
<http://qsen.org/>
- International Nursing Association for Clinical Simulation & Learning (INACSL)  
<https://www.inacsl.org/>
- TeamSTEPPS™  
<http://www.ahrq.gov/teamstepps/index.html/>





# TeamSTEPPS™

## Team Strategies & Tools to Enhance Performance & Patient Safety

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

***“Initiative based on evidence derived from team performance...leveraging more than 30 years of research in military, aviation, nuclear power, business and industry...to acquire team competencies”***

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### [TeamSTEPPS® 2.0 Curriculum](#)

TeamSTEPPS 2.0: Strategies and Tools to Enhance Performance and Patient Safety is a ready-to-use curriculum.

### [TeamSTEPPS Online Training](#)

Sign up for online training in TeamSTEPPS.

### [TeamSTEPPS Pocket Guide App](#)

Access this quick-reference tool for the TeamSTEPPS® communication framework



[TeamSTEPPS Pocket Guide App >](#)

[TeamSTEPPS Pocket Guide App](#)



[TeamSTEPPS Office-Based Care >](#)

[TeamSTEPPS for Office-Based Care](#)



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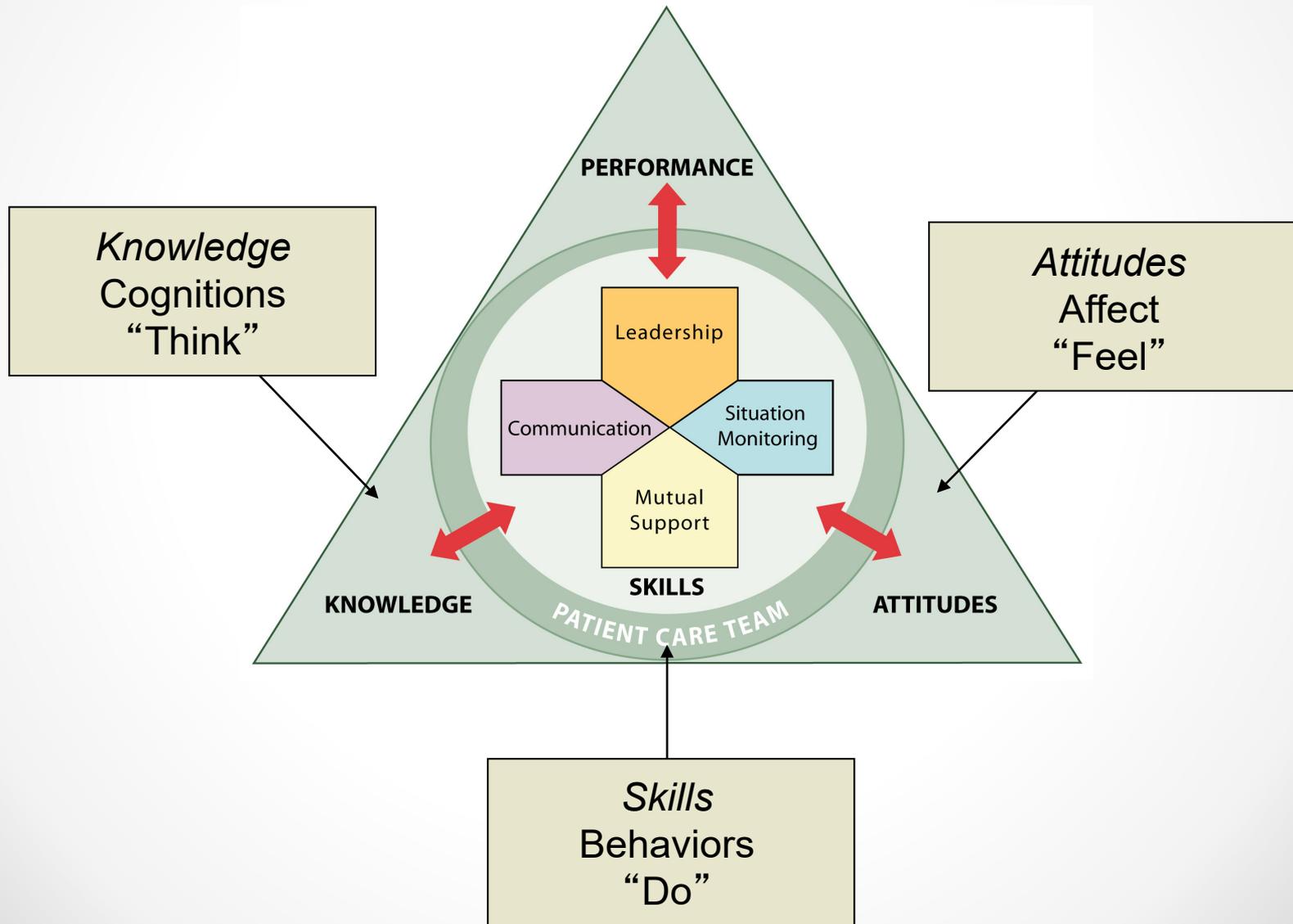
Access TeamSTEPPS webinar recordings and materials.



# TeamSTEPPS™

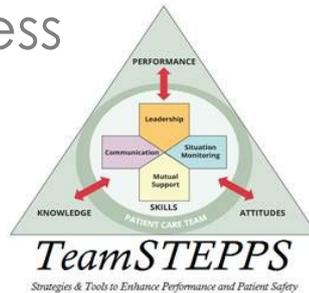
- Ready-to-use materials and training curriculum to successfully integrate teamwork principles
  - Provides specific tools and strategies for improving communication and teamwork, reducing chance of error, and providing safer patient care.
- 
-

# TeamSTEPPS™ Curriculum



# Teamwork Skill

1. Defining a Team
2. Situation Awareness
3. Mutual Support
4. Communication
5. Advocacy & Assertion
6. Conflict Resolution
7. Leadership
8. Putting it all Together
9. Family Meetings



# Clinical Skill

1. Falls
2. Fevers
3. Dyspnea
4. Abdominal Pain
5. Chest Pain
6. Delirium
7. Hypotension
8. Syncope
9. End-of-Life Cares



# SimLearn Example

## VALUE-VANAP Falls Simulation Scenario (Clinical Sim1)

|                                                                                                                                                                                                                                                                                        |                        |                      |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|-------------------------|
| <b>1. Scenario Overview</b>                                                                                                                                                                                                                                                            |                        |                      |                         |
| <b>1a. Scenario Key Words</b>                                                                                                                                                                                                                                                          |                        |                      |                         |
| <ul style="list-style-type: none"> <li>Patient fall</li> </ul>                                                                                                                                                                                                                         |                        |                      |                         |
| <b>1b. Scenario Name</b>                                                                                                                                                                                                                                                               |                        |                      |                         |
| <ul style="list-style-type: none"> <li>Minneapolis VA Medical Center: VALUE-VANAP Falls Simulation</li> </ul>                                                                                                                                                                          |                        |                      |                         |
| <b>1c. Patient Care Improvement Opportunity</b><br>(Knowledge, Skill, Attitude, or Process Gap)                                                                                                                                                                                        |                        |                      |                         |
| <ul style="list-style-type: none"> <li>Increase medical, nursing and pharmacy student knowledge and skill training.</li> <li>Improve outcomes for Veteran <i>patient's</i> experiencing falls by accurately assessing and intervening during and after a patient fall.</li> </ul>      |                        |                      |                         |
| <b>1d. Scenario Purpose</b>                                                                                                                                                                                                                                                            |                        |                      |                         |
| <ul style="list-style-type: none"> <li>A clinical simulation designed to assist medical, nursing and pharmacy students in establishing team roles and responsibilities during a patient fall. This allows the student to recognize and respond to changes in patient status</li> </ul> |                        |                      |                         |
| <b>1e. Setting for Scenario</b>                                                                                                                                                                                                                                                        |                        |                      |                         |
| <ul style="list-style-type: none"> <li>Patient room</li> </ul>                                                                                                                                                                                                                         |                        |                      |                         |
| <b>1f. Modality</b>                                                                                                                                                                                                                                                                    |                        |                      |                         |
| <b>NOTE:</b> In sections 1f through 1i, select items as needed.                                                                                                                                                                                                                        |                        |                      |                         |
| <input type="checkbox"/> Screen Based <input type="checkbox"/> Role Play <input type="checkbox"/> Hybrid (Blended Simulator)                                                                                                                                                           |                        |                      |                         |
| <input checked="" type="checkbox"/> High Fidelity Simulator <input type="checkbox"/> Low-mid Fidelity Mannequin <input type="checkbox"/> Other                                                                                                                                         |                        |                      |                         |
| <input checked="" type="checkbox"/> Standardized Patient <input type="checkbox"/> Task Trainer                                                                                                                                                                                         |                        |                      |                         |
| <b>1g. Confederates (Role Players)</b>                                                                                                                                                                                                                                                 |                        |                      |                         |
| <input type="checkbox"/> Family Member(s) <input type="checkbox"/> Nurse(s)                                                                                                                                                                                                            |                        |                      |                         |
| <input type="checkbox"/> Physician(s) <input type="checkbox"/> Paramedic/Emergency Medical Technician                                                                                                                                                                                  |                        |                      |                         |
| <input type="checkbox"/> Resident(s) <input type="checkbox"/> Other _____                                                                                                                                                                                                              |                        |                      |                         |
| <input type="checkbox"/> Respiratory Therapist                                                                                                                                                                                                                                         |                        |                      |                         |
| <b>1h. Scenario Support Staff</b>                                                                                                                                                                                                                                                      |                        |                      |                         |
| <input checked="" type="checkbox"/> Scenario Faculty / Instructor                                                                                                                                                                                                                      |                        |                      |                         |
| <input checked="" type="checkbox"/> Simulator Technician                                                                                                                                                                                                                               |                        |                      |                         |
| <input type="checkbox"/> Confederates (from 5b)                                                                                                                                                                                                                                        |                        |                      |                         |
| <input checked="" type="checkbox"/> Observers (i.e. other Learners, Co-Facilitators, etc.)                                                                                                                                                                                             |                        |                      |                         |
| <b>1i. Time Requirements</b>                                                                                                                                                                                                                                                           |                        |                      |                         |
| <b>Set Up:</b>                                                                                                                                                                                                                                                                         | <b>Scenarios (x3):</b> | <b>Debrief (x3):</b> | <b>Reset/Breakdown:</b> |
| 5 minutes                                                                                                                                                                                                                                                                              | 10 minutes each        | 20 minutes each      | 5 minutes               |



# Overall Sim Objectives

- Learning Objectives / Knowledge, Skills, and Attitudes
  - Demonstrate basic assessment of the patient with hypotension
  - Demonstrate appropriate personal and patient safety measures
  - Use therapeutic communication techniques between medical, nursing and pharmacy students
  - Use therapeutic communication techniques with patient
  - Identify the actions of other team members for the purpose of advocating for patient safety; utilizing clear and assertive communication to resolve conflict.

# Learning Objectives

## 7d. Learning Objective 4:

Identify the actions of other team members for the purpose of communicating important or critical information using closed loop communication such as SBAR, Handoff, Check-Back or Call-out exchange strategies.

## 7d. K/S/A

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • K | Demonstrate mutual respect and team accountability to communicate important or critical information.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • S | <ul style="list-style-type: none"><li>• Discuss the patient information and plan and communicate using Situation, Background, Assessment, Recommendation (SBAR) strategy</li><li>• Evaluate communication to ensure closed loop communication has occurred.</li><li>• Recognize team member's ability to predict and anticipate care of the patient using handoff report communication.</li><li>• Establish commonality of effort and purpose during emergencies using call-out strategies to help team members anticipate next steps.</li></ul> |
| • A | Recognize teamwork and collaboration styles of communication by patients, families and health care providers.                                                                                                                                                                                                                                                                                                                                                                                                                                    |

# Scenario Goals

## **GOALS:**

### **Team Goals:**

- Leadership
- Huddles
- Plan for change in condition

### **Nursing student goals:**

- Recognize anaphylaxis
- Start fluids
- Place in Trendelenburg

### **Medical student goals:**

- Identify anaphylaxis as cause of hypotension
- Stop offending medication
- Order epinephrine

### **Pharmacy Student Goals:**

- Identify best method for treating anaphylaxis
- Provide epinephrine dosage and route information to team



# The Tale of Louis Vaitis:

Longitudinal **U**ndergraduate **I**nterprofessional **S**imulation  
(**Lo.U.I.S.**)  
teaching **VA** Inpatient **T**eamwork **S**kills (**VA I.T.S.**)

## Standardized Patient

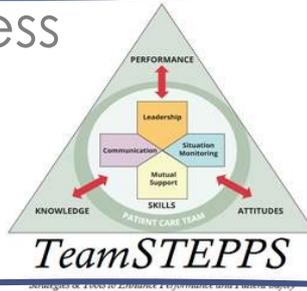


## Sim Man 3G



# Teamwork Skill

1. Defining a Team
2. Situation Awareness
3. Mutual Support
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6. Conflict Resolution
7. Leadership
8. Putting it all Together
9. Family Meetings



# Clinical Skill

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# Beginning the Sim Day

- Room set up
- Student group formation
- Didactic 30 minutes



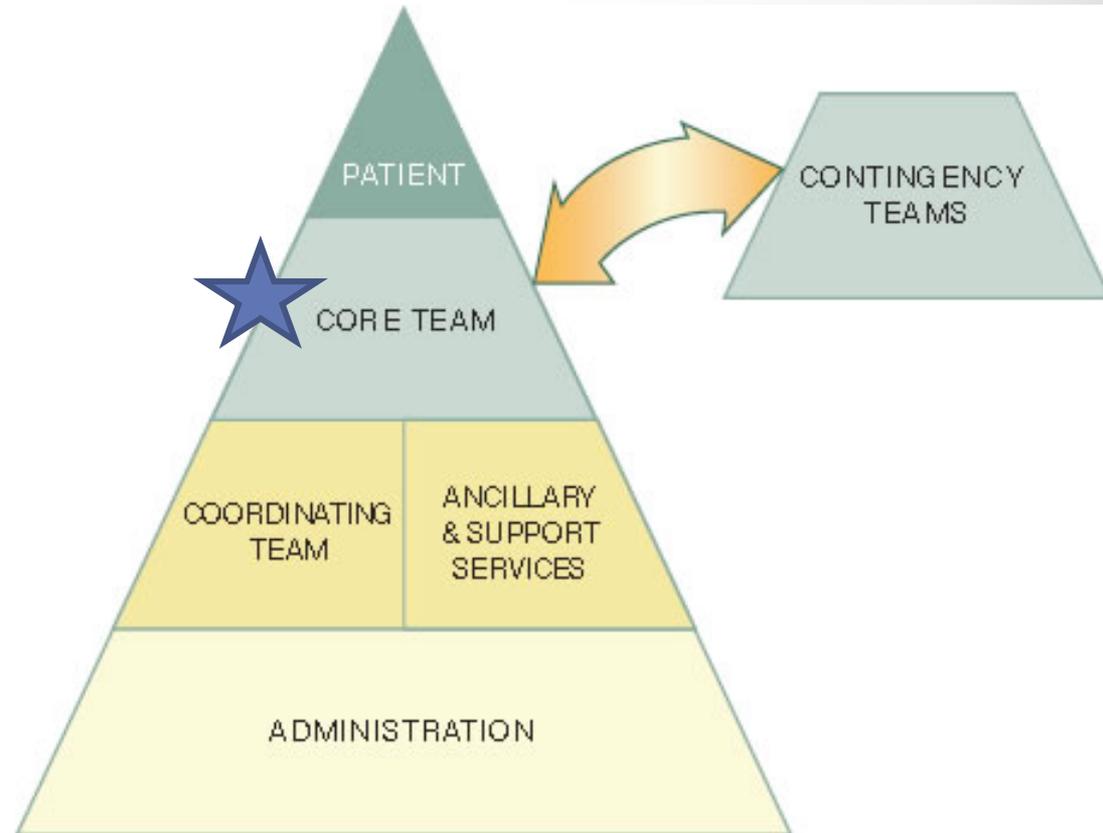
# Session #1: Falls

## TEAMWORK SKILL

- Ice Breakers  
“Are we a team yet?”
- Defining a Team
- TeamSTEPPS®  
“Team Failure” Video

## CLINICAL SKILL

Evaluation and Management of  
an Inpatient after a Fall



# Session #1: Falls

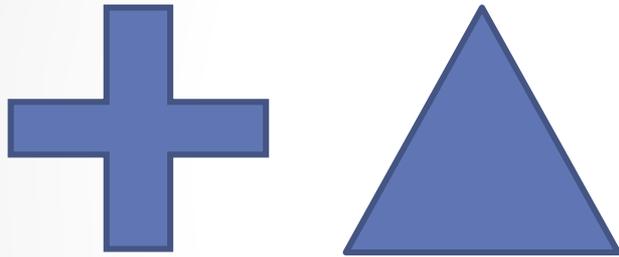
## Simulations:

1. Hypotension from meds causing a fall with hip fracture
2. Falls trying to get up to bathroom causing a subdural hematoma
3. Seizures



# Session #1: Falls

- Debrief after each session



- Session Evaluation



# Session Evaluations

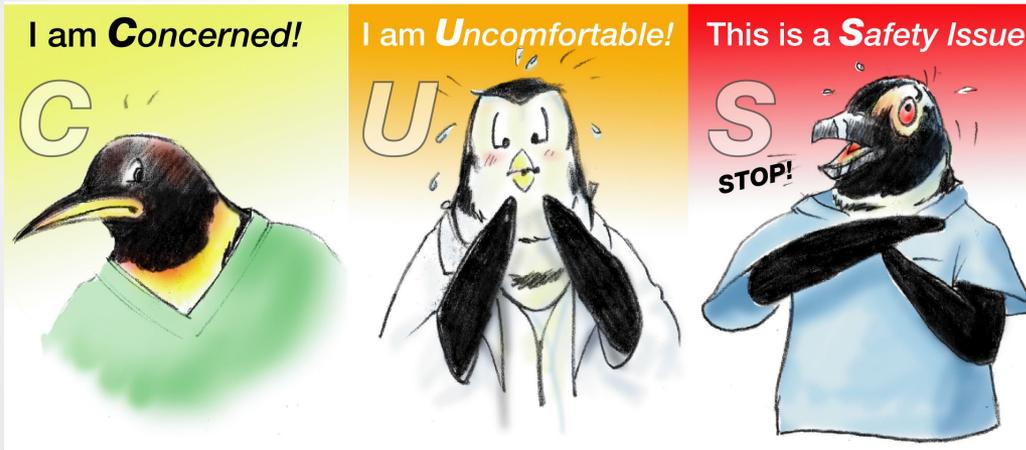
- Enjoyed:
  - Solving problems with multiple disciplines
  - Discussing physiology and treatment options
  - Debriefing
- Changes:
  - Smaller groups
  - Improved technology
  - Improved audio system



# Session #5: Chest Pain

## TEAMWORK SKILL

Advocacy & Assertion



## CLINICAL SKILL

Evaluation and Management  
of Chest Pain

## Simulations:

1. Right-Sided MI
2. Pericarditis
3. Aortic Dissection



# Session #8: Syncope

## TEAMWORK SKILL

Putting it all together

## CLINICAL SKILL

Evaluation and treatment of syncope



**Simulations:** VT arrest x 3

**Debrief:** teamwork skills  
equipment / meds  
code roles

# Session #9: End of Life

## FAMILY MEETING

SPIKES and REMAPS models

Brings together the many components of TeamSTEPPS®

Advocacy, Mutual Support, and working through difficult conversations

## CLINICAL SKILL

End of Life Cares

## Simulations:

1. Breaking bad news
2. Reframing goals
3. Withdrawal of vent support and pressors



National Center for Ethics in Health Care

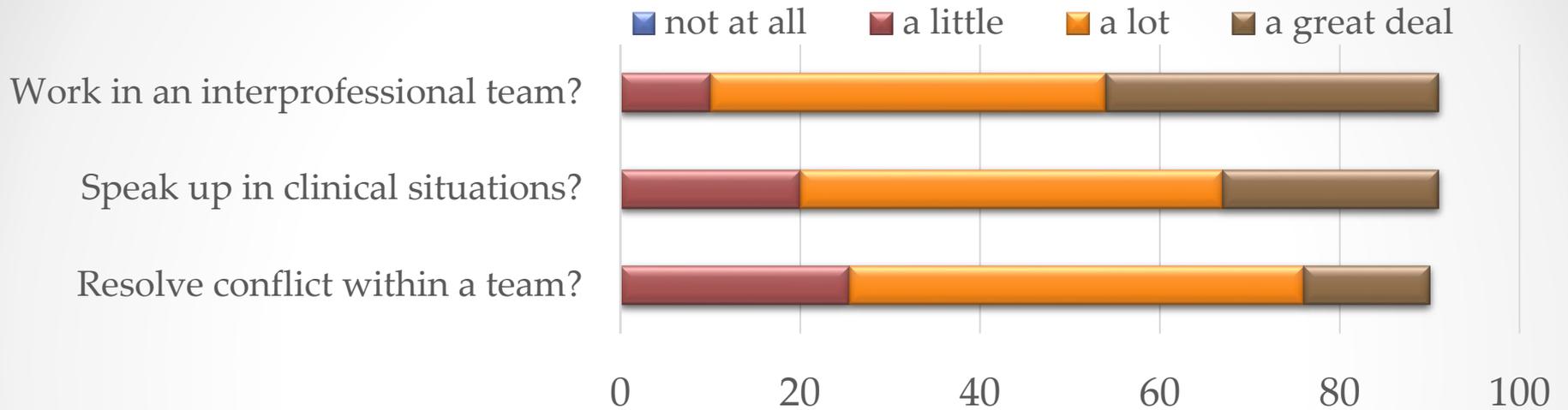
[www.ethics.va.gov/goalsofcaretraining.asp/](http://www.ethics.va.gov/goalsofcaretraining.asp/)

# Curriculum Feedback

- Collected after Simulation 8
- Ten question survey



## “After participating in the sessions, do you feel more comfortable in your ability to...”



## “How often do you use these skills in actual clinical practice?”



# “Did these sessions increase your...”

■ not at all   ■ a little   ■ a lot   ■ a great deal



## Respect

“These simulations have given me such a greater appreciation and respect for what nurses and pharmacists can do for our patients – they learn skills we don’t even cover in medical school.”

## Perspective

“Seeing the different perspectives of patient care from our colleagues was really enlightening; it makes all of patient care seem more well-rounded.”

## Teamwork

“Sim is great. It lets you work on your clinical and communication skills to better patient care in a safe, low-risk environment that fosters teamwork.”

# Lesson Learned

- Introductions are important
- Audio equipment
- Smaller groups are desired
- Orient the students to Sim Man and the equipment in the room
- 



# Lessons Learned cont.

- Students preferred the standardized patient
- Send out prep information to the students
- Specific information for the simulation techs
- Bringing our own supplies and setting up the simulations ourselves was the most effective



# Lessons Learned cont.

- Difficulty of using the same patient across different scenarios
- Length of time to create and implement a single simulation scenario
- Students recognition of each other on the units
- Similar education level
- The students LOVED it and had overall VERY positive feedback for us!



# Questions?





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To receive a Continuing Education Certificate of Attendance please complete the online survey.

Survey Link:

[Click here to go directly to survey link](https://winona.az1.qualtrics.com/jfe/form/SV_2le1dc9y6G1VsvX)

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