

**Improving Team Dynamics Using Interprofessional Simulation:
A Unique Approach**

T.J. Lockhart, MD, FASA
• University of Nebraska Medical Center / Children's Hospital and Medical Center, Associate Professor, Department of Anesthesiology

Sarah Kriss, BS
• Advanced Human Simulation Program Supervisor, IEXCEL, Academic Affairs, University of Nebraska Medical Center

Austin Brake, ASEMS, EMT-P, EMS-I
• Advanced Simulation Specialist/Clinical Educator, IEXCEL, Academic Affairs, University of Nebraska Medical Center


We have no financial relationships to disclose.



1

PRESENTATION OBJECTIVES:


- Discuss Use of Technology to Assist in Facilitating Debriefs
- Integrate Multimodalities in Simulation
- Understand Strategies Used to Improve Communication



2

Why Cardiac Arrest?


- Curriculum
 - Ideal for interprofessional skill building
 - Intermingling of various professionals during response to a medical emergency
 - Learners are confident in their specialized training but have minimal experience with interdisciplinary team dynamics in a high-pressure situation



3

Why Cardiac Arrest?

- Assessment
 - Multiple sessions allow reflection/improvement
 - Move from individual to team focus
 - Feedback using video and standardized patients
 - Can focus on practical application of medical knowledge, team dynamics, patient safety, and communication



4


Cross-Campus Involvement:



5

Cardiac Arrest Team Training Sessions

- Understand the importance of multi-team communication in a simulated code environment
- Utilize strategies to enhance information exchange including call-out and the use of closed-loop communication
- Apply mutual respect and task assistance in a team setting
- Implement behaviors and actions that allow individual contribution to a team resulting in a more effective cardiac resuscitation




6

Overall Goal...

...is to be as competent in teamwork as with clinical skills.


Poor communication and lack of teamwork are root causes of the majority of sentinel events



7

Effective Team Dynamics

Closed Loop Communication	Clear Messages	Clear Roles and Responsibilities
Know Limitations	Knowledge Sharing	Constructive Intervention
Summarize and Re-evaluation	Mutual Respect	



8

TEAM STRATEGY: COMMUNICATIONS CALL-OUT

Strategy used to communicate important or critical information

- Informs all team members simultaneously during emergent situations.
- Helps team members anticipate next steps.
- Important to direct responsibility to a specific individual responsible for carrying out the task.

Example during an incoming trauma:

Leader:	"Airway status?"
Resident:	"Airway clear"
Leader:	"Breath sounds?"
Resident:	"Breath sounds decreased on right"
Leader:	"Blood pressure?"
Nurse:	"BP is 96/62"

9

TEAM STRATEGY: COMMUNICATIONS CHECK-BACK

Using closed-loop communication to ensure that information conveyed by the sender is understood by the receiver as intended

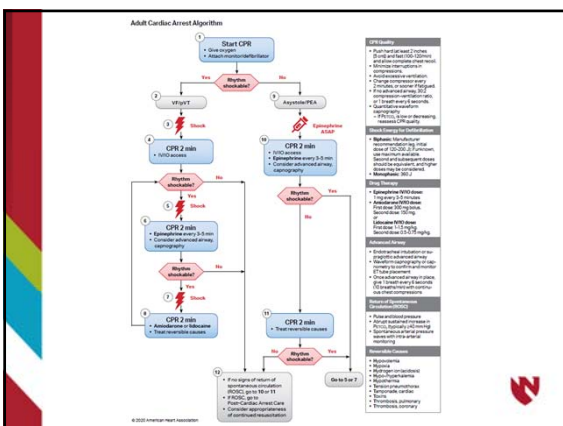
The steps include the following:

1. Sender initiates the message
2. Receiver accepts the message and provides feedback
3. Sender double-checks to ensure that the message was received.

Example:

Doctor: "Give 25 mg Benadryl IV push"
 Pharmacist: "25 mg Benadryl IV push"
 Doctor: "That's correct"

10



11

Integrating High-Fidelity Simulation

UNMC iEXCEL's Davis Global Center
 More info at: <https://www.unmc.edu/iexcel/>

12

Integrating High-Fidelity Simulation



13

Integrating Standardized Patients and Multimodal Simulation

Standardized Patient or Simulated Participant (SP): A person who has been trained to portray the roles of patients, family members, or professionals in simulation.

Multimodal simulation: A simulation that utilizes more than one modes or methods of simulation, such as a high-fidelity patient simulator (manikin) and simulated participant (SP)




14

Best Practices for Simulation Structure

UNMC iEXCEL Sim Structure

- Pre-Brief
- Sim
- Debrief – utilize AV recording system and open-ended questions
- Sim Again (same case with a few tweaks)
- Debrief Again



15



16

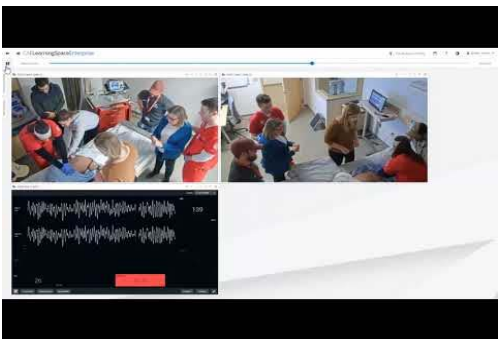


17



18

Clip 4 – SP with Difficult Questions



19

Clip 5 – Team Communication & Speaking with the SP




20


Debriefing with SPs

SP Feedback includes:

- Perspective from the SP's assigned role in the simulation
- An evaluation of learners' specific and observable behaviors focusing on communication and empathy skills
- Heart and logic statements
- Collaboration
- Guided learner self-reflection




HEART and LOGIC



21

Debrief Checklist

- Was communication clear?
- Were roles and responsibilities understood?
- Was situation awareness maintained?
- Was workload distribution equitable?
- Was task assistance requested or offered?
- Were errors made or avoided?
- Were resources available?
- What went well?
- What should improve?



22

Successes vs. Challenges




COVID-19
COVID-19



23

Disclosures

1. Finding the Key to a Better Code: Code Team Restructure to Improve Performance and Outcomes. Cynthia R. Prince, RN, CEN, Elizabeth J. Hines, BA, Po-Huang Chyou, PhD, and David J. Heegeman, MD. Clin Med Res. 2014 Sep; 12(1-2): 47-57.
2. The American Heart Association: <https://www.heart.org/>



24



25
