

Practice Makes Perfect: Implementing Simulation Into A Rural Residency Curriculum

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Outline for today

- 1. Provide an overview and history of Monroe Clinic simulation program including WRPRAP grant
- 2. Discuss logistics in establishing a simulation curriculum including case development and facilitation techniques
- 3. Discussion of 2019 simulation plans at Monroe Clinic including initial results
- 4. Discussion of options to implement simulation in a resource limited setting
- 5. Q&A

Objectives

- Understand the logistics of establishing a simulation program in a rural residency program.
- Learn about the experience of a rural residency program implementing a simulation curriculum.
- Identify options for implementing a simulation program in a resource limited setting.

Housekeeping...

- I have no financial disclosures or conflicts of interest

Why simulation?

Simulation Enhances Resident Confidence in Critical Care and Procedural Skills

James M. Cooke, MD; Janet Larsen, MD;
Stanley J. Hamstra, PhD; Pamela B. Andreatta, EdD

Background: The goal of this study was to determine if clinical simulation improved resident confidence in performing critical care skills, neonatal resuscitation, and colonoscopy. Methods: Residents participated in clinical simulations utilizing high-fidelity medical simulators in a realistic environment. We compared resident responses on pre- and post-experience surveys. Results: Residents reported satisfaction with quality of demonstrations and opportunity for hands-on learning and practice. Residents felt more confident in their ability to apply these skills independently and in the applied context. Conclusions: Simulation is a well-accepted teaching method for critical care and procedural skills and improves resident confidence.

Monroe Clinic Simulation Curriculum

- Blackhawk Technical College
 - Advanced Cardiovascular Life Support (ACLS)
 - Pediatric Advanced Life Support (PALS)
 - Neonatal Resuscitation Program (NRP)
 - Basic Life Support (BLS)
 - Labor & Delivery
 - Emergency Medicine
 - End-of-Life Care
 - Patient Care/Safety
- Onsite simulation lab at Monroe Clinic campus
- New advanced simulation lab opening May, 2019





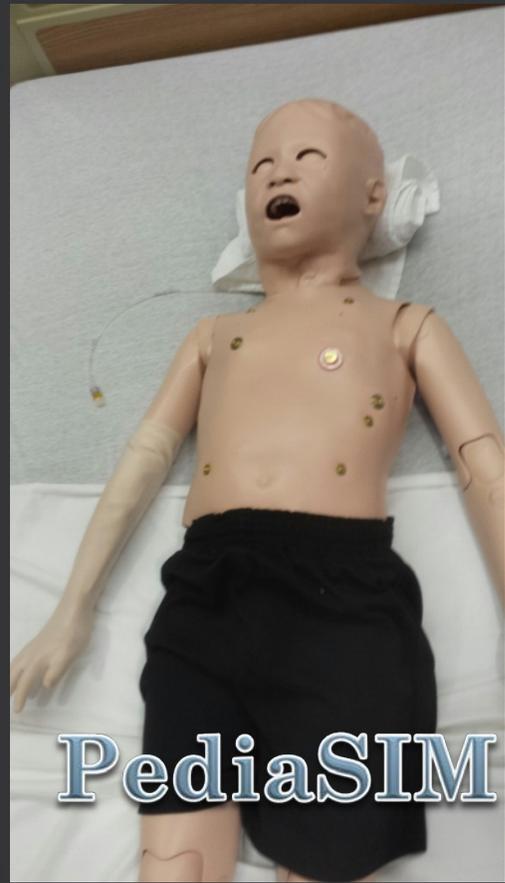
iSTAN



Simulation Room



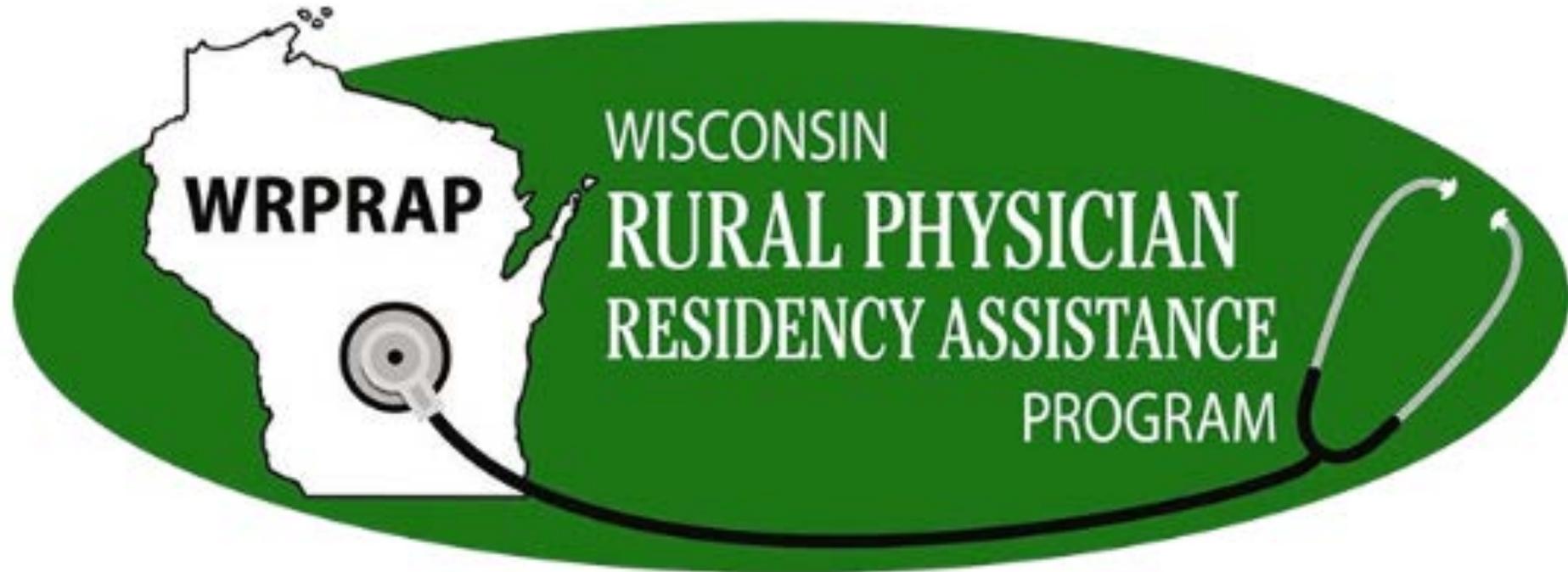
Control Room



PediaSIM



Debriefing Room



WRPRAP Grant

Establishing a Sim Curriculum

- Our experience
- Identify resources for case development:
 - Online curriculum (Medical school, Mayo Clinic)
 - Books (i.e. SimWars)
 - Sim-lab repository

Copyrighted Material



SimWars Simulation Case Book: Emergency Medicine

Edited by Lisa Jacobson,
Yasuharu Okuda and Steven A. Godwin

CAMBRIDGE

Medicine

Copyrighted Material

Simulation Facilitation

- Review each case and practice in advance
- Briefing
- Orient to sim lab in advance
- Ensure objectives are known and understood
- Have a back up plan
 - Facilitator/learner illness
 - Technical difficulties (paper copies)
 - Interruptions (i.e. resident on call)
 - Stall points/End points
- Debriefing is a crucial component!

Simulation Briefing

Topic: Intro to simulation

Facilitator commitment:

- Simulation is for your education and in no way intended to be punitive.
- We feel all of you are competent and intelligent but understand that you may not have been through a simulation like this before.
- You may experience any number of emotions during this case and we will take time to reflect on them during the debriefing.
- The simulation has been set up with your safety in mind but if at any point you feel unsafe we ask that you let us know immediately.
- Today is for learning not for evaluation. We will be taking notes to help facilitate the debriefing. If anything about your participation is going to be used for evaluation we will tell you beforehand.

Learner contracts:

- Safety contract: We assume all learners are intelligent, here to learn, improve performance and ultimately improve the care we provide to our patients. Maintaining a safe environment requires mutual respect and confidentiality (what happens in the sim lab, stays in the sim lab). We understand that sometimes simulated events make learners nervous, and behaviors or actions made may not necessarily reflect what would be done at a bedside or in the clinic. The idea is to identify learning opportunities where something different might be done next time.
- Fiction contract: We understand that there are limitations to our technology but we will do our best to make the session realistic and in return we ask you to do the same. Treat the mannequins as you would a real patient. It is not our goal to “trick” anyone or try to cause mistakes so if you have a question about whether a finding is “real”, please ask.

Session goals/objectives:

- Use rapid coordination of communication and teamwork to discern and differentiate causes of chest pain.

Overview of simulation and debriefing:

- Schedule for the day:
 - o Pre-simulation evaluation – 5 minutes
 - o Introductions, briefing and Tour of Sim Lab
 - o Simulation – 10 minutes
 - o Debriefing – 20 minutes
 - o Large group debriefing – 20 minutes
 - o Post-simulation evaluation – 5 minutes
- Team-members: Team 1 (Mark P, Brittany, Stephan), Team 2 (Ben, Mark B, Elizabeth)
- Equipment: Standard adult and pediatric mannequins. No standardized patients. Basic medical supplies for each case.
- Rules of simulation:
 - o Use standard contact precautions (gloves, masks, PPE)
 - o Remember what happens in the sim lab, stays in the sim lab!
 - o Maintain confidentiality and respect
 - o 100% engagement, make it real
 - o Expect to make mistakes
- Housekeeping: Bathroom, food, drink, breaks, interruptions.



Jump Sim Introduction to Facilitation

This two-day course helps prepare facilitators to engage participants in simulations and other highly emotional occurrences in positive behavioral changes.

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What we've learned



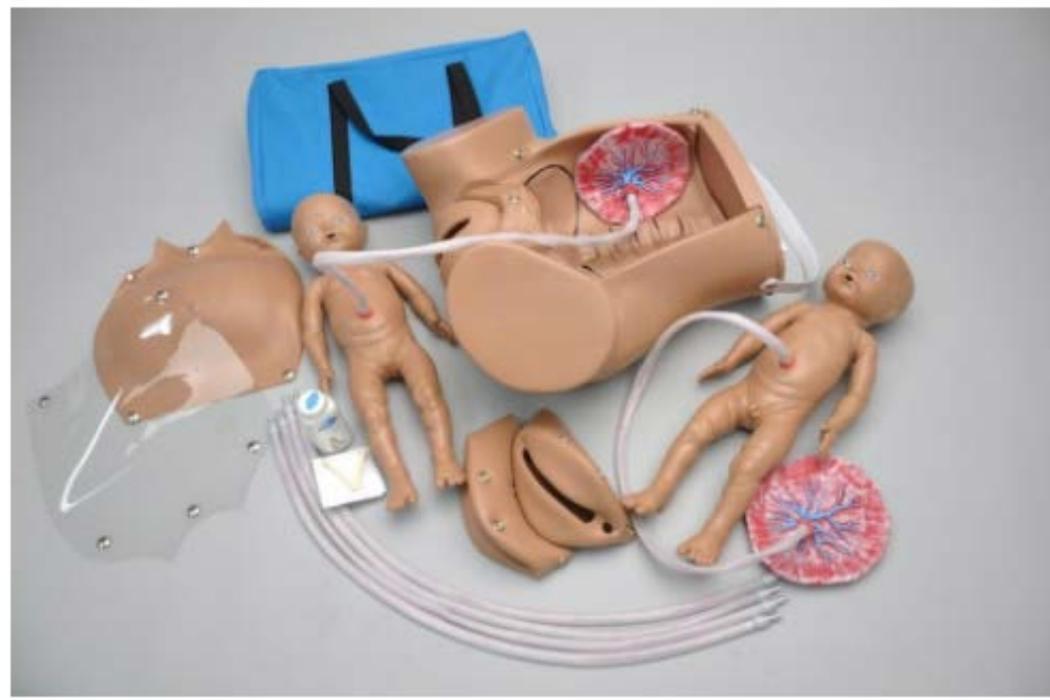
Initial simulation results

- 2 cases
 - Aortic Dissection
 - Anaphylaxis
- Initial feedback
 - Working as a team, switching roles
 - Didactic session post-sim
- 1. PBL
- 2. Procedural workshops
- 3. Simulation
- 4. Specialty lectures
- 5. Faculty lectures
- 6. Resident lectures
- 7. Board review (clickers)
- 8. Student lectures
- 9. OSCE
- 10. Journal Club

Future Plans

- 3-4 simulations per year
- Rotating every 2-3 years
- Expansion of cases to include newborn simulator
- Monroe Clinic and BTC to obtain new simulators 2020

Thoughts on implementation in a resource limited setting





<https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwjGouSYvtfhAhVnm-AKHbheAW4QjRx6BAgBEAU&url=https%3A%2F%2Fwww.rosalindfranklin.edu%2Facademics%2Fhealthcare-simulation%2Fstandardized-patient-program%2F&psig=AOvVaw110jh8iCF3jSVW1HnOwNEf&ust=1555602775904031>

Potential avenues

- Local or Regional Medical School or GME Program with an already established simulation curriculum
- Pair with community resources (EMS, fire department, etc...)
- Talk with surrounding universities/colleges particularly those with Nursing programs.
- Coordinate inter-disciplinary cases

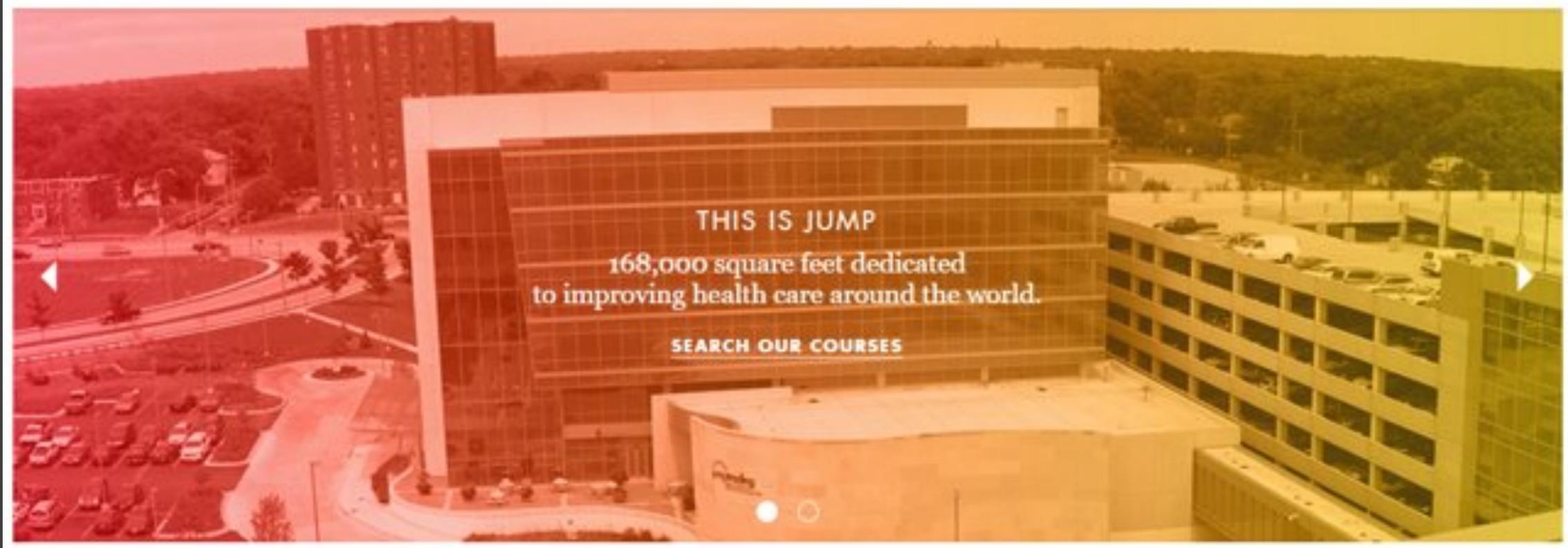
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MEDICINE PEORIA COLLABORATION



jump | SIMULATION

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Questions?

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