

Title: Facilitating Multiple Patient Simulations



**Presenter:**  
Rose Raleigh MS, RN, CHSE

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**FACILITATING MULTIPLE  
PATIENT SIMULATIONS**

ROSE RALEIGH MS, RN, CHSE  
CENTURY COLLEGE

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## OBJECTIVES

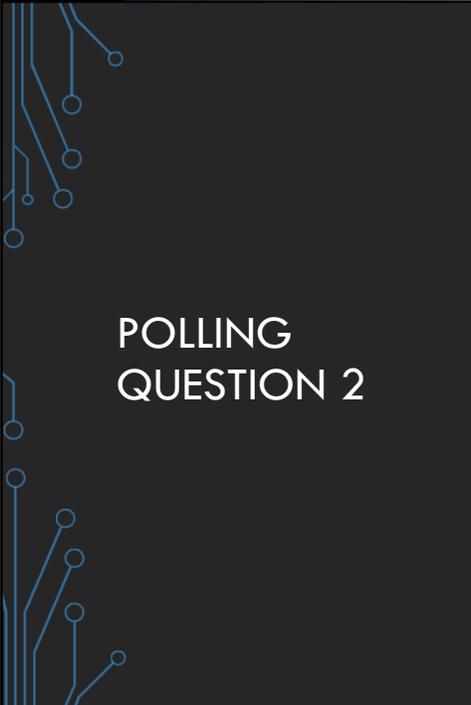
- 1. Describe the planning involved to create a multiple patient simulation.
- 2. Identify two simulations in current use to combine into a multiple patient simulation.

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## POLLING QUESTION 1

- How many years have you been facilitating simulations?
  - 0-1 year
  - 1-3 years
  - 4-6 years
  - Over 6 years
  - I do not facilitate simulations

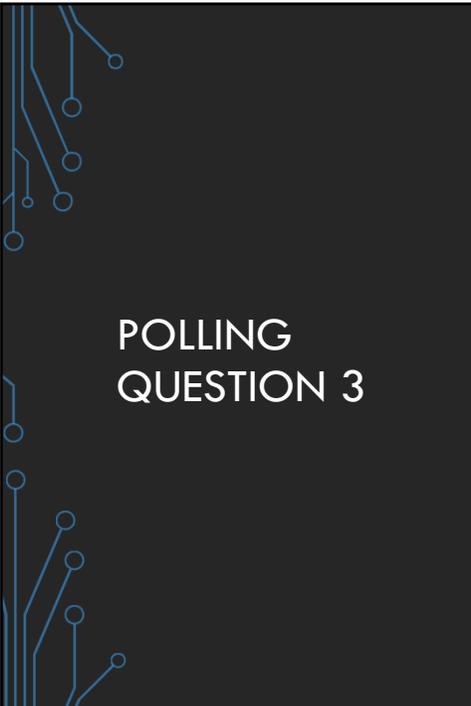
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POLLING  
QUESTION 2

- What type of space for simulation do you have? Select all that apply.
  - Single bed in room
  - Multiple bed in room
  - Dedicated simulation space (used only for simulation)
  - Multipurpose space (used for labs and simulations)

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POLLING  
QUESTION 3

- Are you doing multiple patient simulations?
  - Yes
  - No

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## WHY DO MULTIPLE PATIENT SIMULATIONS?



- You have too much time on your hands and you need something to fill the empty hours.
- You want to make sure all the manikins get used at least once a year.
- You want to make sure the simulation rooms/lab space look busy because no one else uses them.
- You enjoy spending time with the manikins and an 8 hour set-up time lets you do that without seeming weird.

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### THE REAL REASON

It allows participants to work in an environment that promotes independent decision making and collaboration without feeling they are being watched every second.

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HOW DOES THAT HAPPEN

## INACSL Standards of Best Practice: Simulation <sup>SM</sup>

- Outcomes and objective
- Simulation design
- Facilitation

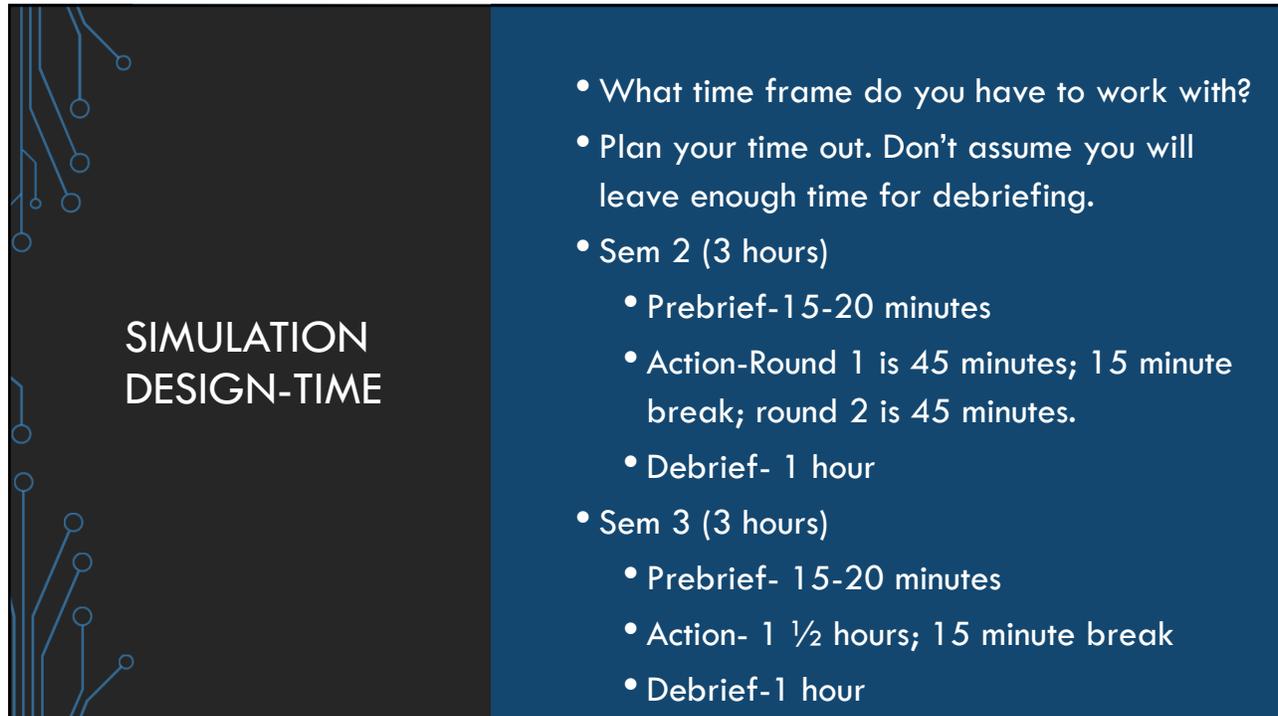
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## OBJECTIVES OF MULTIPLE PATIENT SIMULATIONS

- Prioritize and implement nursing care for multiple patients.
- Effectively delegate appropriate cares to a nursing assistant.
- Demonstrate successful team work to manage multiple patients in a changing environment.



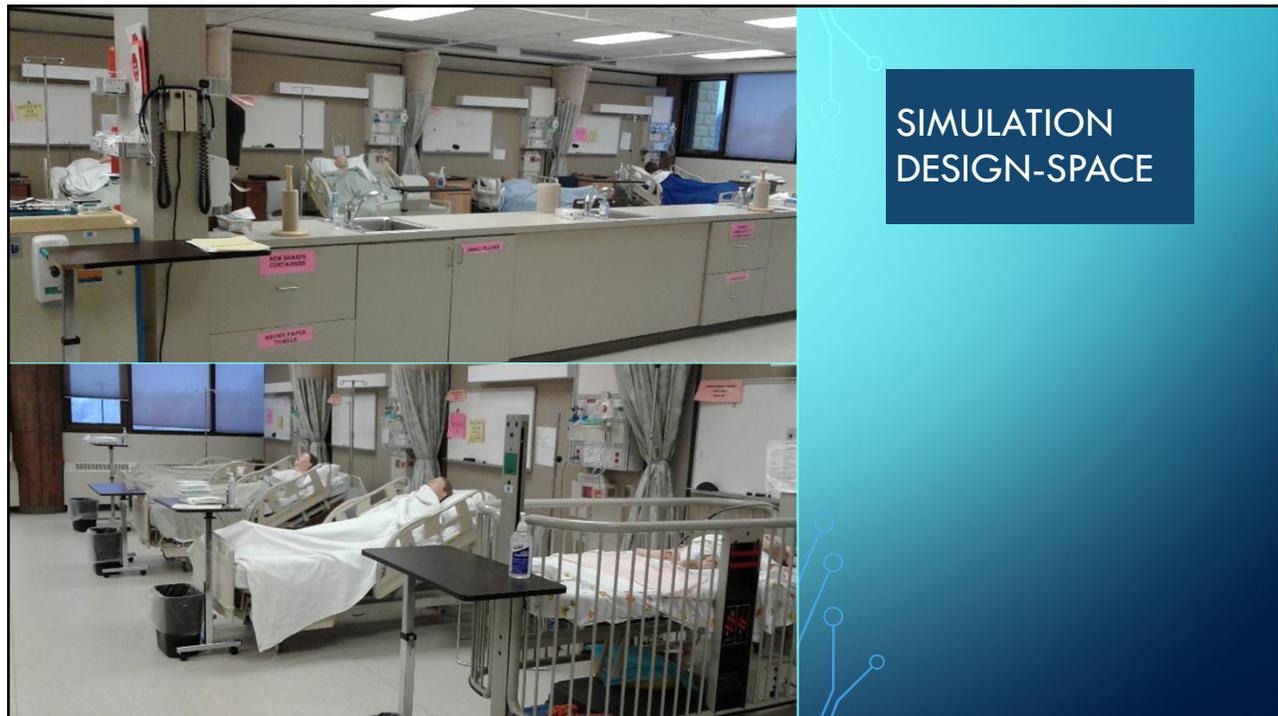
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## SIMULATION DESIGN-TIME

- What time frame do you have to work with?
- Plan your time out. Don't assume you will leave enough time for debriefing.
- Sem 2 (3 hours)
  - Prebrief-15-20 minutes
  - Action-Round 1 is 45 minutes; 15 minute break; round 2 is 45 minutes.
  - Debrief- 1 hour
- Sem 3 (3 hours)
  - Prebrief- 15-20 minutes
  - Action- 1 ½ hours; 15 minute break
  - Debrief-1 hour

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## SIMULATION DESIGN-SPACE

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## SIMULATION DESIGN-SPACE: HALLWAYS WORK



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## NUMBER OF STUDENTS

- Sem 2 simulation has 12 students at a time. Six are nurses and six are nursing assistants. Each pair of students cares for a pair of patients. Two pairs of patients. Three set-ups of each patient.
- Sem 3 simulation has 6-8 students managing 10 different patients. Two students are in the role of team leader.

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## SIMULATION DESIGN-SEM 2 STUDENTS

### OUTLINE WHAT YOU WANT THE SIMULATION TO LOOK LIKE

- Manage two stable patients as a solo nurse, delegate to a nursing assistant, have a non-life threatening change in condition for at least one patient which warrants an SBAR to the provider.
- The patients have multiple chronic illnesses. There will be 4 different patients. The concepts will be spread out over the 4 patients so by the end of the simulation they have reviewed all the concepts for the semester.
- Students will work in pairs. Student 1 is the nurse for patient 1 & 2 with student 2 being the nursing assistant. Part 1 runs for 45 minutes. They switch roles. Part 2 has student 2 being the nurse for patient 3 & 4 with student 1 as the nursing assistant.

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## PREP-SEM 2 STUDENTS

Sem 2 students receive a scenario, current orders, off-shift report and a chance to ask questions from the off-going nurse. They are told to create a time management sheet for 0730-0830

Simulation: Multiple patients-Scenario 1

Learning objectives:  
 1. Prioritize and implement nursing care for multiple patients.  
 2. Effectively delegate appropriate cares to a nursing assistant.

Scenario:  
 You will be coming in on the day shift starting patient care at 0730. You are caring for Kerry O'Neill, 59 years old, who has stage 3 chronic kidney disease, chronic heart failure, and a history of a stroke one month ago. Kerry has no residual effects from the stroke. Kerry was admitted yesterday with heart failure exacerbation.

Your other patient is Chris Yang, 7 years old, who has juvenile idiopathic arthritis (rheumatoid), asthma and a seizure disorder. Chris was admitted with a flare up of the arthritis.

You will be the only nurse caring for these patients. You will not be working in a group. You will have a peer partnered with you who will be your nursing assistant. Think about what you will delegate to the nursing assistant.

Based on the information you have what is your highest priority at this time overall? For each patient?

You will be receiving report at the beginning of your "shift" What questions would you have for the off-going nurse?

PREP: Do a time management sheet for 0730-0830. List out what you want the nursing assistant to do. Be familiar with the medications you will be giving.

Name: O'Neill, Kerry DOB: 5/25/59 years ago MR#:1890  
 Weight: 82 kg Allergies: NKA

Provider Orders	
1.	Admit to Unit 3 East with heart failure exacerbation. History of stage 3 chronic kidney disease, chronic heart failure, and a stroke one month ago.
2.	Activity: as tolerated
3.	Labs: Daily CBC, electrolyte panel, BUN, creatinine, aPTT, BNP
4.	Diet: cardiac diet
5.	Daily Weight
6.	Lasix 20 mg intravenously (IV) every 6 hours (Due 0800)
7.	Atenolol 50 mg orally daily (Due 0800)
8.	Heparin 5000 units subcutaneous every 12 hours (Due 0800)
9.	Calcium carbonate 500 mg orally three times a day (Due 0900)

Name: Yang, Chris DOB: 8/25/77 years ago MR#: 53281  
 Weight: 23 kg Allergies: NKA

Physician Orders	
1.	Admit to Unit 3 East with juvenile idiopathic arthritis flare. History of asthma and a seizure disorder.
2.	Activity: as tolerated
3.	Labs: Daily CBC with diff, electrolyte panel, BUN, creatinine
4.	Diet: Regular
5.	Daily Weight
6.	Seizure precautions
7.	Normal saline 0.9% at 70 mL/hour
8.	Phenytoin 40 mg orally three times a day (due 0800)
9.	Prednisone 20 mg orally once a day (Due 2000)
10.	Methotrexate 20 mg subcutaneous every week on Tuesday (Due 0800)
11.	Ipratropium 2 puffs metered dose inhaler 4 times a day (Due 0900)
12.	Albuterol 2 puffs metered dose inhaler every 4 hours as needed for wheezing

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## SIMULATION DESIGN-SEM 3 STUDENTS OUTLINE WHAT YOU WANT THE SIMULATION TO LOOK LIKE

- Manage multiple unstable patients as a team of nurses; have some patients get better, some stay the same, some get worse.
- Every patient needs at least one SBAR to the provider.
- Patients are new admissions and are admitted every 5-7 minutes.
- Patients cover the concepts learned throughout the program.
- Patients may have acute conditions, chronic conditions with exacerbations or both.

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## PREP-SEM 3 STUDENTS POSTED ON D2L

For the final simulation complete the med dosage problems on the handout.

There is no other prep other than what you have learned since you started the program.

There will be 2 team leaders for each group. Team leaders will assign patients and make sure things are running smoothly, like a charge nurse.

Please let me know if you would like to be a team leader.

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## CREATE THE FLOW OF EVENTS FOR EACH PATIENT

<p>Hypovolemia, GI bleed                      Name: Coy, David                      MR#: 12623432                      DOB: 05/25/70 years ago                      Provider: James Spock, MD                      Room                      70 kg                      100.4, 110, 20, 80/50, 88%                      After NS 100, 90/66, 88%                      After PRBC's 90, 100/70, 92%</p>	<p>Kidney failure with diabetes                      Name: Ge, Pao                      MR#: 876395681                      DOB: 05/31/68 years ago                      Provider: James Kirt, MD                      Room                      92 kg                      97.2, 100, 20, 180/100, 95%                      Labetalol first dose 170/90                      2<sup>nd</sup> dose 160/90                      3<sup>rd</sup> dose 140/80                      4<sup>th</sup> dose 130/80                      Accu check to start: <u>  220  </u>                      After insulin: _____</p>
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## CREATE INITIAL ORDERS FOR EACH PATIENT

Century College Hospital  
 Provider Order Sheet

Name: Nelleson, Sharon  
 MR#: 109866  
 DOB: 06/24/49 years ago  
 Provider: Barry Spool, NP

Weight:   80   kg      Allergies: \_\_\_\_\_

Date	Time	
Today		<ol style="list-style-type: none"> <li>1. Admit to Unit 3 East</li> <li>2. Diagnosis: r/o ketoacidosis</li> <li>3. Activity: bedrest</li> <li>4. Diet: NPO</li> <li>5. VS every 4 hours</li> <li>6. Labs: CBC with diff, <u>lytes</u>, glucose, anion gap, ABG's</li> <li>7. UA</li> <li>8. IVF: 0.9% normal saline 500 mL bolus then at 150 mL/hour.</li> <li>9. Zofran 4 mg IV every 6 hours as needed for nausea/vomiting.</li> </ol> <p style="text-align: right; margin-top: 10px;">----- Tom Kruze , NP</p>

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CREATE ADDITIONAL  
ORDERS FOR EACH  
PATIENT.  
THESE WILL BE GIVEN IN  
RESPONSE TO THE SBAR.

Name: Nelleson, Sharon  
MR#: 109866  
DOB: 06/24/49 years ago  
Provider: Barry Spool, NP

New orders:

1. Regular Insulin gtt 7 units per hour.
2. Check glucose every hour
3. Potassium chloride 10 mEq IV over 2 hours now
4. Culture the wound
5. Cefazolin 500 mg IV every 6 hours

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CREATE A SUPPLY  
LIST AND LABELS  
FROM THE ORDERS

DKA

Regular insulin

1 unit/1 mL 0.9% normal saline

IV

Expires in 2 weeks

Simulation use only

Ondansetron 4 mg/mL

IV

Expires in 2 weeks

Simulation use only

Potassium chloride 10 mEq IV

In 50 ml Normal saline with lidocaine

Administer IVPB over 2 hours

Expires in 2 weeks

Simulation use only

Cefazolin 500 mg/50 mL

IV

Administer IVPB over 30 minutes

Expires in 2 weeks

Simulation use only

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## SETTING UP THE MANIKINS

- Choose the best manikins for the condition:
- Age
- CPR ability
- Lung sounds
- Manual blood pressure
- OB
- Wounds

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## ASSIGN THE MANIKINS TO BEDS

- Bed 1: MI/Sim Man
- Bed 2: Asthma (kid)
- Bed 3: Septic shock/annie 1
- Bed 4: CKD, diabetes (edema)/  
VS 1
- E 3285: acetaminophen  
overdose/DVT/Annie 2
- Bed 5: GI bleed/Megacode Kelly
- Bed 6: DKA (wound)/Annie 3
- Bed 7: Pre-eclampsia (belly)/Annie 4
- Bed 8: liver failure (Sim baby)
- E3287: bowel obstruction/Noelle

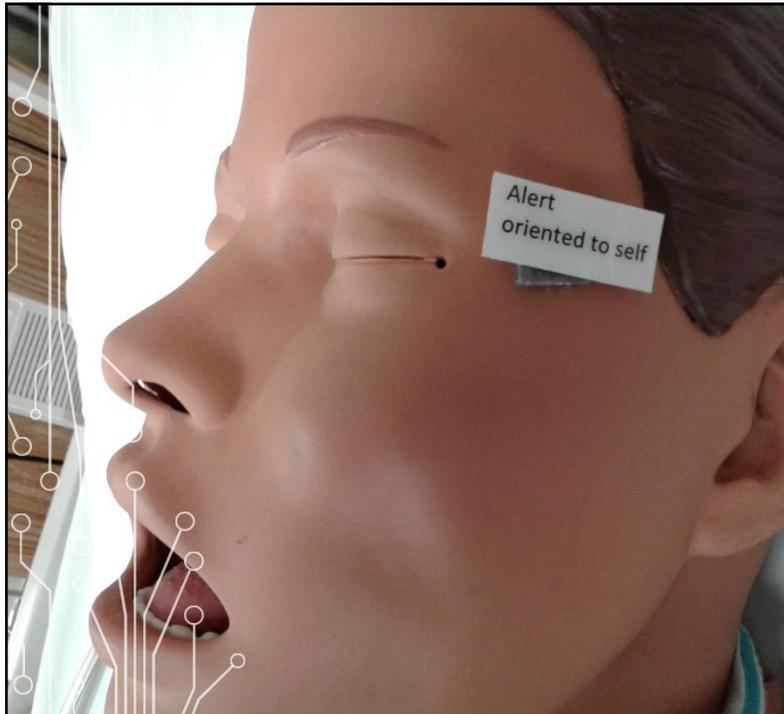
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CREATE A LIST OF  
ASSESSMENTS  
ASSOCIATED WITH  
EACH PATIENT

Hypovolemia, GI bleed  
Name: Coy, David  
Pale pale pale pale  
weak pulse weak pulse  
weak pulse weak pulse  
cool cool cool cool  
4 sec 4 sec 4 sec 4 sec  
dizzy

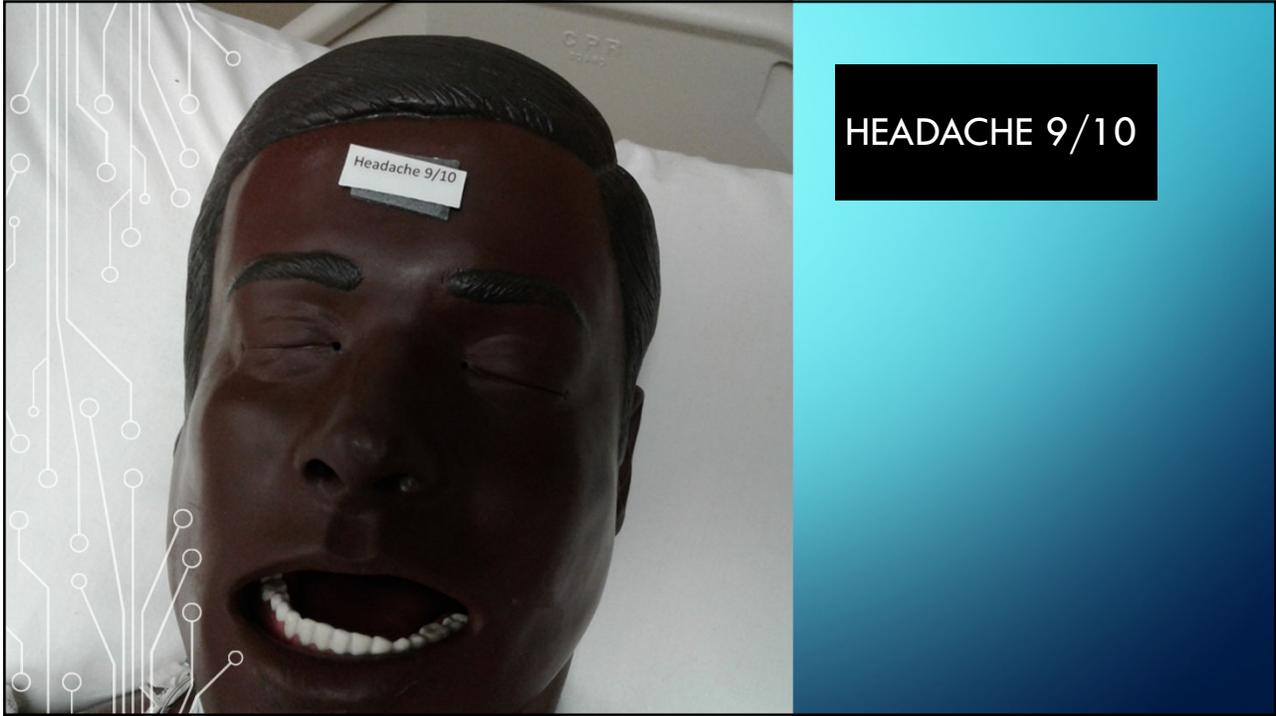
Prenatal pre-eclampsia  
Name: Johansen, Megan  
Warm dry warm dry  
Warm dry warm dry  
3 sec 3 sec 3 sec 3 sec  
Headache 9/10  
Fundus FHR 144|  
Hyperreflexia hyperreflexia  
A&O x 4  
pulse pulse  
pulse pulse  
Warm red tender  
+1 non-pitting +1 non-pitting

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Alert: Oriented to Self

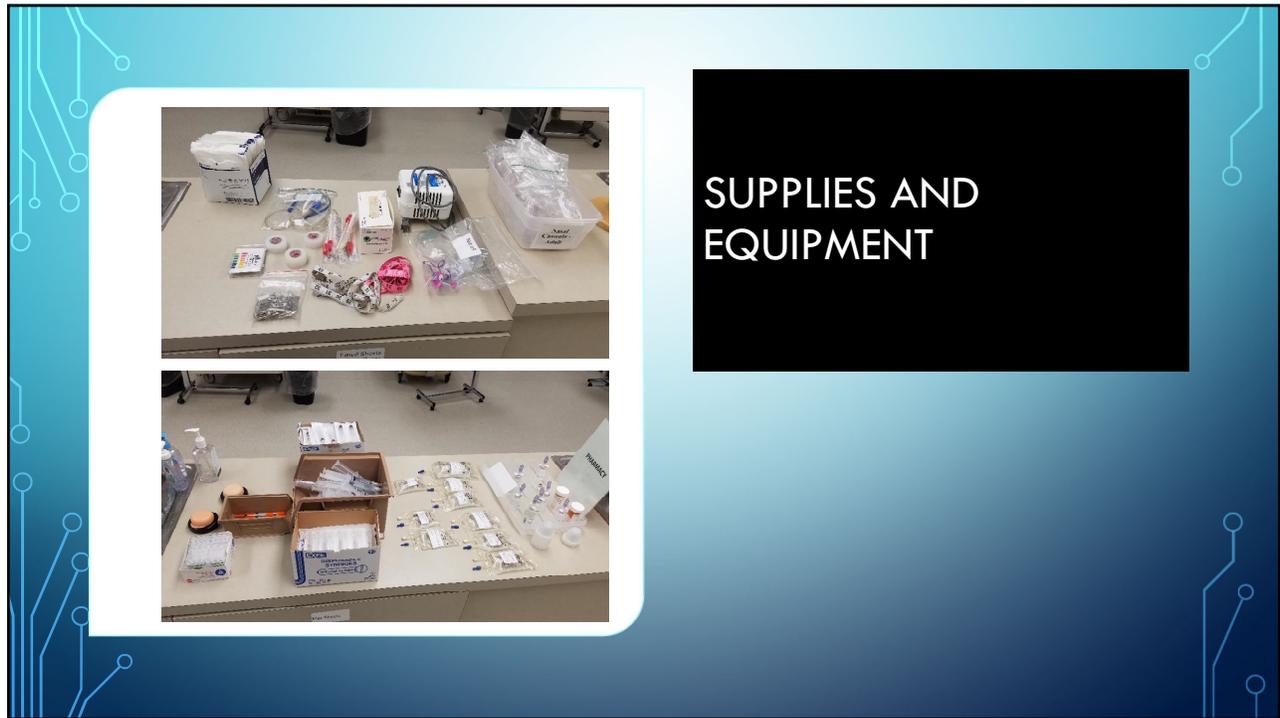
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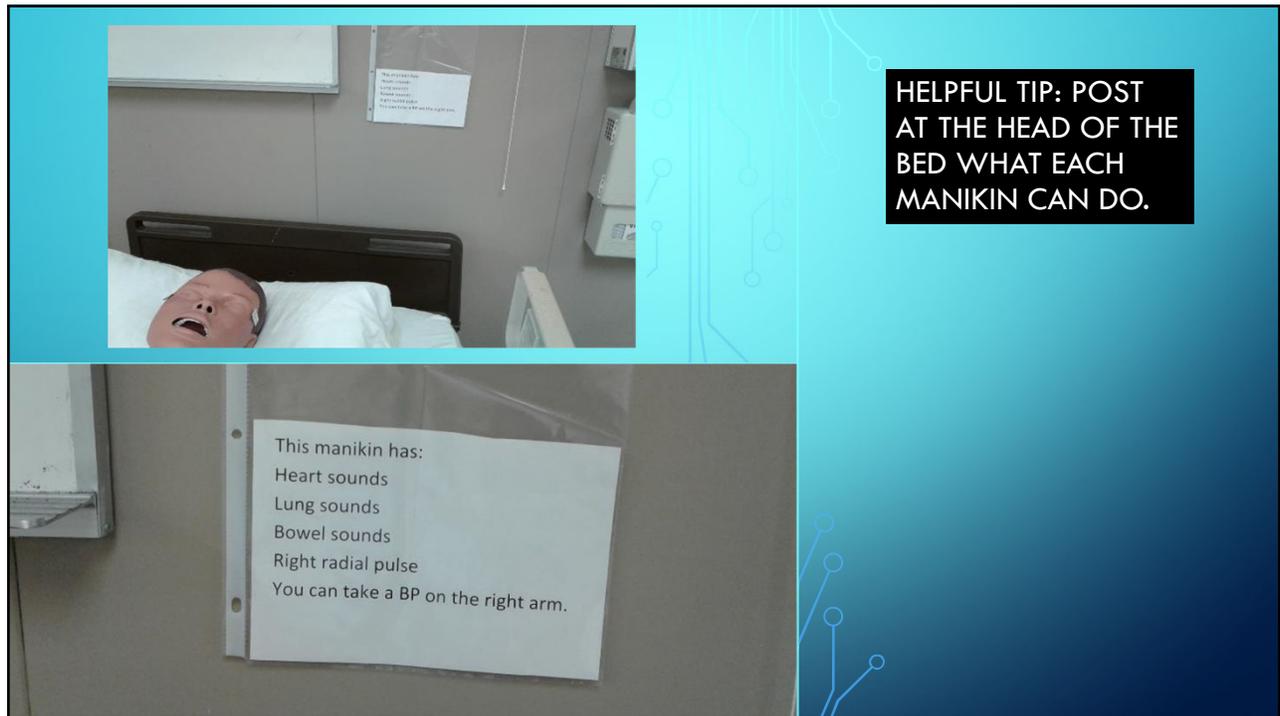


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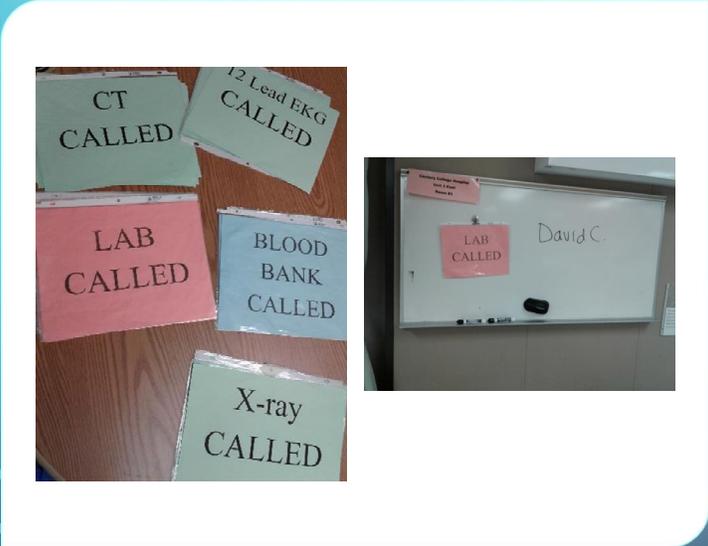


# SUPPLIES AND EQUIPMENT

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**HOW TO NOTIFY ANCILLARY SERVICES**

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**GET YOUR CONTROL STATION READY**

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## HELPERS

Tracheostomy Tom and Halfway Harry are willing resource nurses to sit in the room if the patient is receiving blood.

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## ADDITIONAL HELPERS

- Used during the Sem 2 simulation as patients for students to ambulate.
- Used during the Sem 3 simulation as nursing assistants to sit with a patient for a 1:1 or a pediatric patient.

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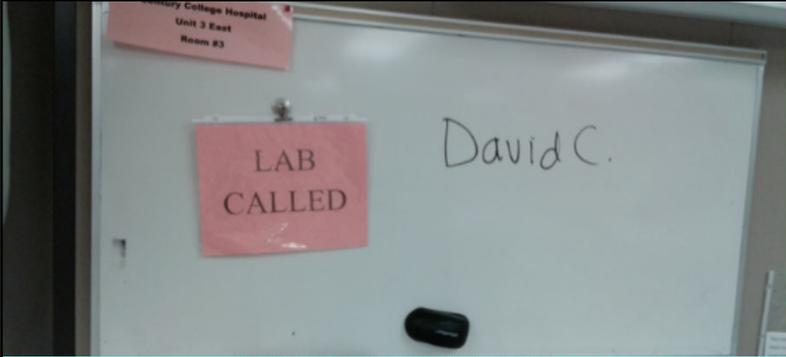




## START THE SIMULATION

- “Okay, let’s start the simulation.”
- Set a timer if needed
- Students start with assessments etc...

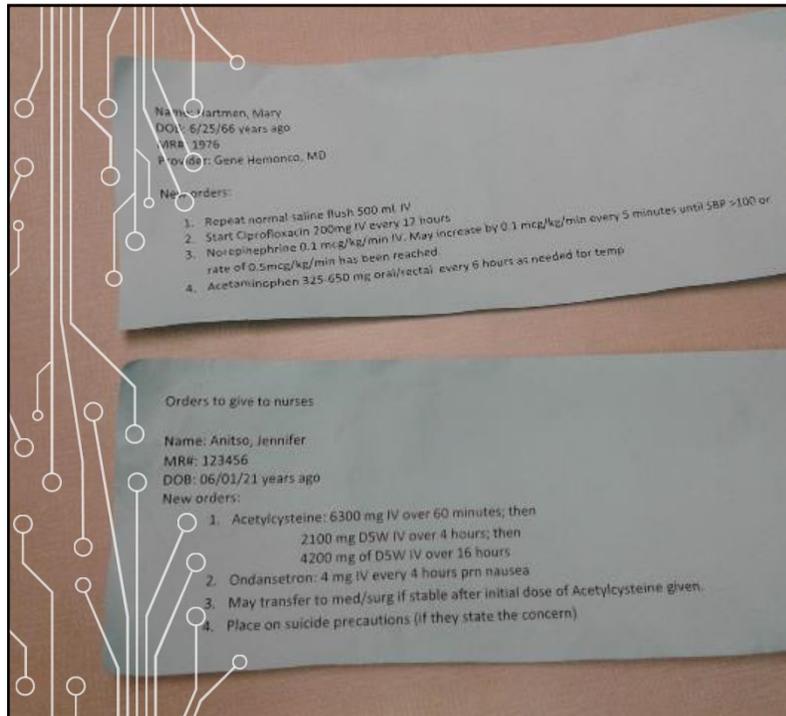
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Test	Normal range	TODAY
<b>Hematology</b>		
Hgb	12.6-17.4 g/dl	8.3*
HCT	43-49%	48%
WBC	4.5-11 (10 <sup>3</sup> /mm <sup>3</sup> )	13.7*
RBC	4.71-5.14 (10 <sup>6</sup> /cell/mm <sup>3</sup> )	4.5*
MCV	85-95 fl	93
MCH	28-32 pg/cell	31
MCHC	33-35 g/dl	34
RDW	11.6-14.8	12
PLT	150,000-450,000/mm <sup>3</sup>	153,000
<b>Electrolyte Panel</b>		
Glucose	65-100 mg/dL	78
Calcium	8.2-10.2 mg/dL	9.3
Potassium	3.5-5 mEq/L	3.7
Sodium	135-145 mEq/L	136
CO2	22-26 mEq/L	24
Chloride	97-107 mEq/L	100
BUN	8-21mg/dL	23*
Creatinine	0.6-1.2 mg/dL	1.1

IF THEY CALL FOR  
LABS/TESTS/  
ETC...  
THEY PLACE THE  
SIGN ON THE  
WHITE BOARD  
AND I WILL GIVE  
THEM THEIR  
RESULTS

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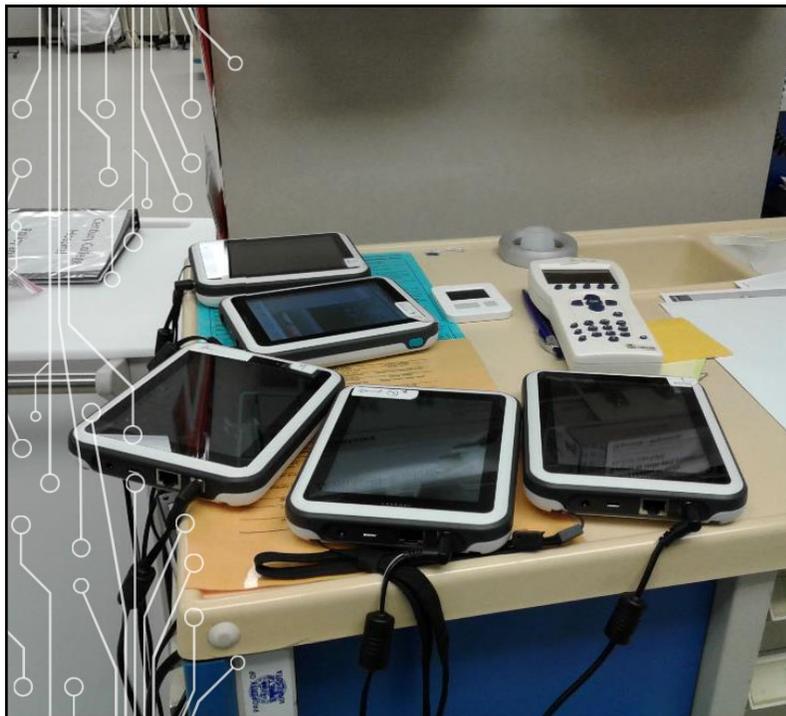


## WHEN THEY ARE READY TO SBAR

They need to have their SBAR ready.

They call me over, give their SBAR and I give them their orders. There is no need to read back as the new orders are written.

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MAKE CHANGES TO PATIENTS BASED ON INTERVENTIONS IMPLEMENTED

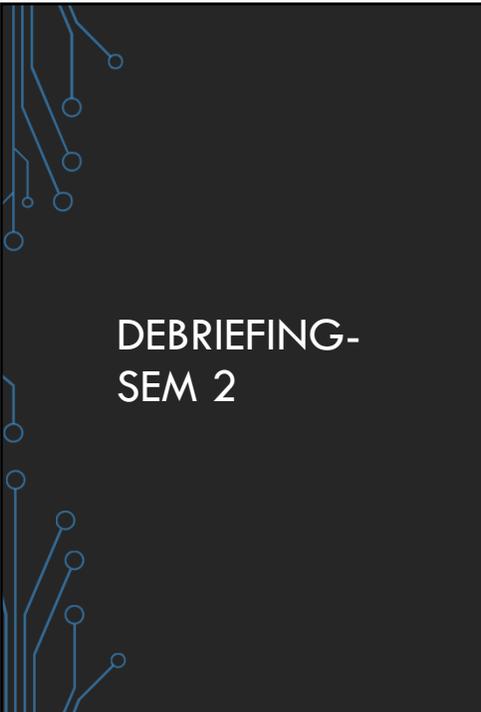
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00:00  
**TIMER**

The simulation unfolds until the timer goes off or I say “end simulation.”

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DEBRIEFING-  
SEM 2

- After each round, the student in the role of the nursing assistant gives feedback the student in the nurse role.
- At the end of round 2, we sit in a circle and debrief the multiple patient experience as well as each patient.

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## DEBRIEFING- SEM 3

- We start debriefing with talking about the entire sim.
  - What was it like to work as a team?
  - How were the patients managed?
- We do walking rounds on each patient and the primary nurse gives a report.

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## FACILITATOR TIME



### Sem 2 sim

Set-up 6 hours.

The 3 hour simulation is run 6 times over 2 days.

Students reset each station which takes 5 minutes.

Take down time 2 hours.



### Sem 3 sim

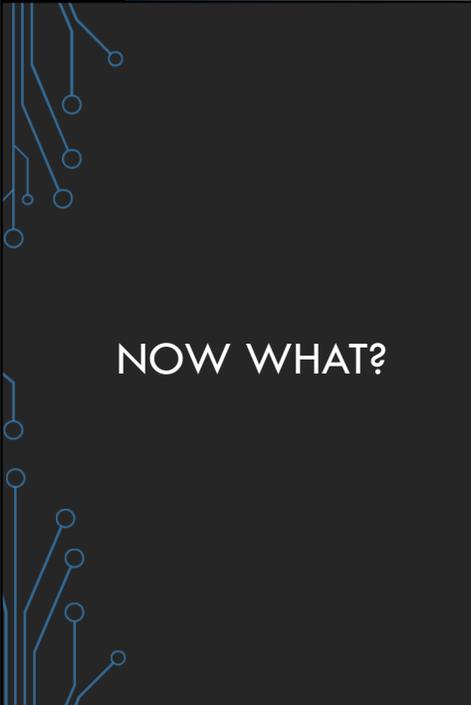
Set-up 8 hours.

The 3 hour simulation is run 8 times over 4 days.

It takes 1 hour to reset between runs.

Take down time 3 hours.

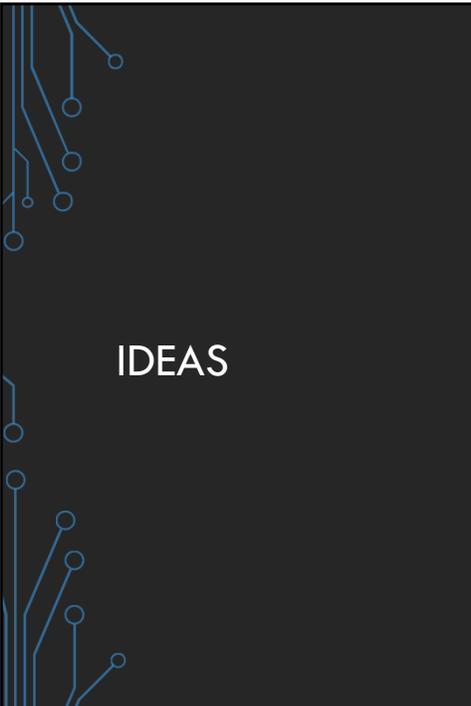
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## NOW WHAT?

- Think about the simulations you currently have. List 2 of those you could incorporate into a multiple patient simulation experience?
- If you use case studies in the classroom, which of those could you turn into a multiple patient simulation?

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## IDEAS

Write in the chat box some ideas of which patients you would use in a multiple patient simulation.

Bowel obstruction	DVT
Asthma	GI bleed
Septic Shock	DKA
Renal Failure	Pre-eclampsia
Diabetes	Liver failure
MI	Acetaminophen Overdose

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## TON OF WORK BUT WORTH IT IN THE END

- This sim was realistic!
- I felt like the nurse.
- I loved and hated having to be the nurse and make my own decision.
- I feel ready to graduate.
- I learned how to not only think on the spot but how to utilize critical thinking and prioritization while under pressure.
- It is easy to sit back on a case study and think and research to come up with a list of "what you would do" in that situation, but the simulations gave us insight into what we would actually come up with and do in that situation.
- I learned that remaining calm is KEY to transitioning smoothly from one priority to the next.

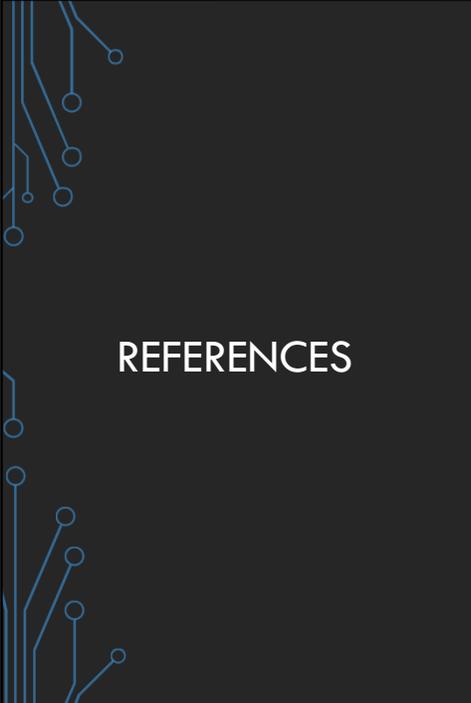
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## QUESTIONS?



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## REFERENCES

- INACSL (2016). Standards of Best Practice: Simulation (SM). *Clinical Simulation in Nursing*, 12, S1-S50.  
<http://dx.doi.org/10.1016/j.ecns.2016.10.001>([http://www.nursingsimulation.org/issue/S1876-1399\(16\)X0014-X](http://www.nursingsimulation.org/issue/S1876-1399(16)X0014-X))

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## Title: Facilitating Multiple Patient Simulations



**Presenter:**  
Rose Raleigh MS, RN, CHSE

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