

# High Fidelity Simulation



Christy Nibbelink, RN, BSN  
Aims Community College

[cnibbeli@aims.edu](mailto:cnibbeli@aims.edu)



# Objectives

- Planning for Simulation.
- Programming.
- Student Preparation for Simulation.
- Simulation Session:
  - Preconference.
  - Scenario.
  - Debrief.
- Video, Sim Lab tour.

# High Fidelity Simulation

- Computerized, interactive, life-sized manikin that can be programmed to provide realistic patient responses and outcomes to nursing care.
- Example: Sim Man, Meti Man, Noelle.





# Planning for Simulation

- Focus simulation scenario on subject previously taught.
- Include skills and critical thinking appropriate for the scenario.
- Develop objectives appropriate for the scenario.
- Groups of 4 to 5 work best for simulation.
- Plan on the experience taking 1 – 1 1/2 hours.
- Make list of items you use in the scenario.

# Setting Up the Program

<b>Sequence of Events</b>	<b>Expected Action</b>	<b>Manikin Programming</b>	<b>Vitals and Vocals</b>
For instance: Students enter room.  Initial State of Manikin	Nursing Actions (give medication, assess, etc.)	Patient Response (For instance: patient seizes)	Also patient programming
Frame 2			

Format Adapted from: Work, Education and Lifelong Learning Center, 2007



# Scenario Programming

- Select Edit
- Start Scenario Editor.
- Add events to initial frame.
- Add frames.
- Add actions (body of frame).
- Add events (small boxes at bottom of frame).
- Link events to new frame(s).
- Program new frames as above.
- Can operate “on the fly”.

# Student Preparation for Simulation

- Provide students with clear expectations.
- Provide students with “patient” information.
- Students prepare based on “patient” information.



# Immediately Prior to Simulation

- Goal: Orient students to decrease confusion during simulation.
- Orient students to room and manikin.



# Preconference

- Nursing shift report is read to students.
- Student discussion of patient issues and plan of care.
- Assign roles randomly.
- Discuss expectation of each role and student expectations during the scenario.
  - SBAR.
  - 5 Rights.



# Scenario

- Lasts about 20 minutes.
- Do not save students.
- Can have patient decline if students are ignoring significant change.
- Take notes for debrief.
- Educator's role is observation.



# Debrief

- Main learning experience of simulation experience.
- Generally will take more time than the scenario.
- Questions from faculty should be brought up as Socratic Questions.
- This should be a student led discussion.
- Video of students shown during this time.

# Repeat Scenario



- Gives the students an opportunity to improve and increases confidence.
- Debrief can also be repeated.
- The repeated scenario and debrief take less time.



# References

Alinier, G., Hunt, W. B., & Gordon, R. (2004). Determining the value of simulation in nurse education: Study design and initial results. *Nurse Education in Practice, 4*, 200-207. Retrieved February 15, 2006, from CINAHL database.

Bearnson, C. S., & Wiker, K. M. (2005, September). Human patient simulators: A new face in baccalaureate nursing education at Brigham Young University. *Journal of Nursing Education, 44*(9), 421-425.

Feingold, C. E., Calaluce, M., & Kallen, M. A. (2004, April). Computerized patient model and simulated clinical experiences with baccalaureate nursing students. *Journal of Nursing Education, 43*(4), 156-163.



# References

Henrichs, B., Rule, A., & Grady, M. (2002, June). Nurse anesthesia students' perceptions of the anesthesia patient simulator: A qualitative study. *AANA Journal*, 70(3), 219-225.

Nehring, W. M., & Lashley, F. R. (2004, September/October). Human patient simulators in nursing education: An international survey. *Nursing Education Perspectives*, 25(5), 244-248.

Rhodes, M. L., & Curran, C. (2005, September/October). Use of the human patient simulator to teach clinical judgement skills in a baccalaureate nursing program. *Computers, Informatics, Nursing*, 23(5), 256-262.

Work, Education and Lifelong Learning Center. (2007) Eclamptic Seizure (Antepartum). Retrieved March 22, 2009, from <http://www.e-colorado.org/>



# Additional Information

- WELLS Center:  
[http://www.coloradonursingcenter.org/  
CurrentProjects/WellsCenter.html](http://www.coloradonursingcenter.org/CurrentProjects/WellsCenter.html)
- Socratic Questioning:  
[http://changingminds.org/techniques/  
questioning/socratic\\_questions.htm](http://changingminds.org/techniques/questioning/socratic_questions.htm)
- Simulation Innovation Resource Center  
(National League for Nursing):  
<http://sirc.nln.org/>