

# SAFETY IN SIMULATION

*Primum non nocere – 'above all, do no harm'*

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# DISCLOSURE

- I have no money
- I am receiving no money
- I only want the best patient care

# OBJECTIVES

- Define the Role of Simulation in closing the gap between academic training and clinical practice requirements
- Review the Role of Simulation in Training and Evaluating Competency
- Review Best practices in Simulation Training
- Discuss the improvements in Patient Safety as a result of Simulation Training

# US ARMY 1989



DES MOINES, IA - 1995





# DENVER, CO - 2001



# OVERVIEW OF SIMULATION

- Simulation training not new
- Simulation is a technique, not technology. Aimed at recreating real-world experiences
- Used last 30 years in industries such as
  - Military, Airlines, Nuclear Power
- In last 10 years, technology has improved to produce realistic HC simulators yet we have been using them in HC since the late 1800's

# TYPES OF SIMULATION

- Computer based training
- Simple – partial task trainers , i.e. IV arms
- Mechanical - Human Patient Simulator – full body, gives feedback
- Standardized Patient – patient actor
- Virtual Reality
- Integrated Models
- Cadaver
- Animal Models



# WHY USE

- Patients deserve the best quality care!
- Patients are to be protected and not used as a training commodity
- Allows less experienced providers to hone skills
- Allows training of new devices
- Learn from mistakes-psychologically safe in a learning environment
- Increasingly difficult to place students into a clinical setting for practice
- Lack of qualified faculty in educational programs
- Educational Tool
- Assessment Tool
- Evaluation Tool
- Drive to reduce risks and costs



# PROS

- Errors are not harmful
- Simulated training leads to clinical improvement (specifically technical trainings)
- More likely to adhere to proven protocols (i.e. ACLS algorithms)
- Gain confidence
- Build skills



# LIMITATIONS

- Time to assimilate to new, complex technology
- Visible costs are high but the significant costs may be indirect, soft, or long term.
- Not a substitute for real life patient
- Qualified faculty for teaching
- Stressors –
  - Fear of mistakes
  - Fear of embarrassment
  - Scrutiny of performance by instructor





# IMPACT

- Improvements in clinical judgment
- Reduced medical errors
- Is here to stay, future of healthcare training
- Medical-legal implications – increased insurance costs for providers who do not participate in simulation training.
- Are we really measuring what we need to measure?

Difficult to find percentages or costs savings. – More research is needed

# TURKMENISTAN - 2016



# UNIMAGINABLE STORY - 2016



**SSH**

**Society for Simulation in Healthcare**



# REFERENCES

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