UCSF Simulation Center

The Time has Come

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Goals of a Simulation Center

- Develop high quality simulation experiences
- Provide opportunities to practice and develop skills without putting patients at risk
- Develop inter-professional team training
- Provide opportunities for credentialing
- Conduct research to validate simulation
- Facilitate learning beyond the center

Status at other institutions

- 40% of medical schools use mannequin simulators
- Anesthesia, Cardiology, Surgery are leaders in using simulation
- LCME expects simulation in med school
- Some RRCs now expect simulation
- JCAHO - simulation reduces errors and improves safety
- Central facilities deemed most effective
- Harvard, Stanford, Toronto, UCD, UCLA

UCSF Survey

- Web-based survey
- 4 current small simulation centers
- Resources needed include space, faculty, equipment
- Standardized patients and critical care situation training needed
- Skills in scopes, BCLS/ACLS, Code Blue, medication errors, pharmacodynamics, catheters, microsurgery identified
- Interpersonal exercises in clinical decision-making and communication
Central Facility Opportunities

- Certification / re-cert for nurses and physicians
  - Phlebotomy, central lines, ECGs, vital signs
  - Competency assessment
- Training across disciplines in interventional or surgical techniques
- Shared space, resources, personnel

Facility Characteristics

- Modular, available for all, 24/7
- OR, trauma, ICU, standard patient room and central control area
- Patient interview rooms with adjacent control area, also used for computer-based learning sessions
- High-fidelity mannequins - full-body and parts including some portable equipment
- Microsurgery, bronchoscopy, endoscopy, pelvic exam, ocular
- Procedural skills practice space including endovascular suite
- Small and larger classrooms with remote video
- Research area for development
- Secure data management
  - Credentialing, skills assessment, completion records
- High quality audiovisual technology
- Staff space

Duke Simulation Center

Trauma Man
Catheter-based training

Capital Requirements

- Mannequins - $30,000 - $250,000
- Endovascular simulator - $250,000
- Dedicated microsurgical - $1 million
- Integration software - $150,000 - $200,000
- Space renovation - 3,000 to 12,000 sf at $250 - 300 / sf
- Total of $2.5 million to start

Annual Operating Expenses

- Personnel
  - Director, center coordinator, dedicated trainers, audio-visual technician
- Non-personnel expenses
  - Maintenance, supplies, utilities, rent
- Budget around $600,000 / year

Funding Opportunities

- Philanthropic sources
- Firefighters, paramedics, military
- Research grants
- Medical Center
- User fees but do not want to discourage use
- Some commercial centers expect profits
Next Steps

- Distribute report
- Educate the UCSF community
- Identify champions
- Develop detailed plans
- Identify space
- Raise money