

A Framework for the Use and Development of Medical Simulation in the Military

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DOD Simulation Training

History of DOD Interest and Funding
The Current Environment for Simulation
The Future of Simulation Training
Patient Safety and Readiness Training



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History of DOD Interest and Funding

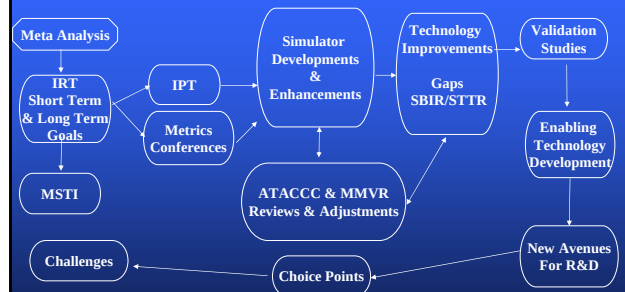
Changes in the Training Environment
Shifts in Public Policy and Acceptance
Dollars and Disagreements
Lessons Learned from Civilian Training



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Medical Simulation R&D



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Current Environment for Simulation

Sim Centers: Everyone Has to Have One
Who is Ready to Have a Sim Center
Growth of Agencies and Societies
Increased Action in Public Policy



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The Future of Simulation Training

The American College of Surgeons
National Boards and Agencies
Accreditations and Certifications
Strength of the Simulation Society
The DOD Initiative



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The Tri-Service Initiative

Leaders Aware of Potential of Simulation
DOD Has Huge Medical Training Need
Single Service Efforts Only A Start
No Comprehensive Plan for Sim Training
USUHS Conducts Planning Meeting



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The Tri-Service Initiative

Reps Tell Service-Unique Approaches
Assess Number and Type to be Trained
Identify Locations of Training Sites
Identify Available Training Equipment
Identify Costs of Simulation Training



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The Tri-Service Initiative

Recognize Common Curriculum Training
* Begin with Grad Med Education
Find Possibilities for Common Training
Sharing of Locations, Instructors, Equipment
and Students
Eliminate Duplicate Costs in Personnel and
Dollars



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Current Navy Simulation Training

- End user input sought via surveys
- Training and research sites identified
- Simulator locations identified
 - NNMC 2 Some at NCAMSC
 - NM East 12
 - NM West Access to 3 at NSHS
 - NM Support 43 among NHCS, NSHS and NAVMED
 - Ops Units 20 located primarily with MC Assets



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Future Navy Simulation Training

- Move to a centralized approach
- Build requirement driven utilization
- Must include performance indicators
- Conduct outcomes-based research
- Global Joint Simulation Training Centers
- Federal Medical Coordinating Council
- This is the new paradigm for DOD



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Current Air Force Simulation Training

- Equipment does not equal capability
- Lack of support staff to run and maintain
- Lack of standard curriculum
- With the exception of dedicated training centers, simulators are largely unused or inadequately used



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Future Air Force Simulation Training

- Distributed Human Patient Simulator (DHPS) training platform
- Three phases with three capability levels
- Contracted support through OPM
- Standardized curriculum for all AFMS for
 - Readiness
 - Graduate Medical Education
 - Patient Safety/Team Training
 - Annual Life Support Courses



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CSTARS Program in Simulation

- Currently supporting the training of:
 - Special Operations medics
 - Nurses
 - CRNAs
 - Critical care
 - Emergency medicine
 - Operating room
 - Independent-duty medical technicians
 - Physicians
 - Surgeons
 - Anesthesiologists
 - Internal medicine/critical care
 - Flight Medicine
 - Medical students



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CSTARS Program in Simulation

- Air Force program: Center for the Sustainment of Trauma and Readiness Skills (C-STARs) established 2001
- Tightly integrated into MASTRI Center
- Joint courses established with Departments of Anesthesiology, Surgery, and Trauma as well as the School of Medicine.
 - Airway management
 - Trauma assessment
 - Mock code program
 - Intraoperative management
 - Central line training



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CSTARS Program in Simulation



- Current equipment:
 - Two HPS systems
 - Two ECS systems
 - One SimMan
 - Full digital audio-video recording and editing capabilities
 - Mobile
 - Fixed
 - Partial task trainers
 - TraumaMan
 - Central Line Placement



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Current Army Simulation Training

- Two centers: NCAMSC and Anderson
- No standard program; creative individuals
- No consistent funding; creative sources
- Identified locations of trainees
- Identified locations of sites and simulators
- Evolving Concept of METC and MSTC



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Future Army Simulation Training

- Strong commitment to METC
- Strong commitment to MSTC
- Central Simulation Committee
 - Begin with GME with nine specialties
 - Collaborate with MSTCs to expand training
- Joint Simulation Training



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Central Simulation Committee

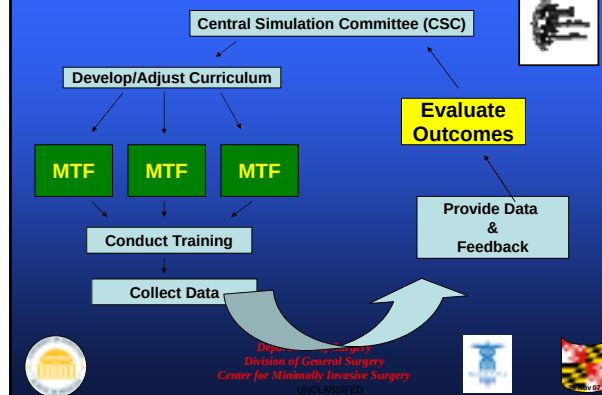
- Purchase simulators based on best available evidence and experience
- Create and implement a standardized GME curriculum for resident education
- Re-deployment training for physicians
- Improve patient safety
- Evaluate and deploy new simulation technology



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CSC Flow of Operations



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Current Progress

- Initial CSC meeting held 4/07 and simulator purchase orders placed 5/07 and these are being delivered
- Training courses for 8 of 9 specialties have been conducted (final specialty training planned for 11/07)
- Additional course held for nursing 10/07 to facilitate their involvement and obtain input



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Current Progress

CURRICULUM:

- Initial curriculum in place and being loaded onto Sharepoint Website
- Final curriculum to be completed by Jan 08 and will be uploaded to Sharepoint Website

SIMULATORS ARRIVING:

- Anticipate all simulators delivered by 12/07



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Funding

- Update briefings done for OTSG 6/2007 and 11/2007
- FY 07 – \$2.88 million committed and allocated
 - Simulators for 9 specialties at 10 MTFs
 - Implementation training/TDY
- FY 08 - \$936,000 committed and being distributed
- FY 09 – Sustainment costs approximately \$1 million per year



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Redeployment Training Plans

- Will provide a description of the program and available simulation training for each specialty to all MTF Commanders and Department Chairs
- Specialty-specific programs and training sites being established
 - Training coordinated with local training sites
 - Initial training programs to be available Jan-Feb 08
 - Goal to have all specialties online by July 08
- Funding for ReDeployment costs should be paid for by GWOT
 - TDY to training sites
 - Simulation supplies



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Potential for Propagation



- Currently working with MSTC at Fort Lewis to create a model for collaboration where CSC and MSTC are on the same installation for synergistic training
- Opportunity is there to do the same at other MTFs that are co-located with MSTCs



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Potential for Collaboration



Triservice meeting 5/07:

- Reviewed current organization and plans for simulation training for all three services
- Addressed both GME and Military-specific simulation training

Air Force and Navy are in the process of the following:

- Completing needs assessments
- Organizing similar Simulation Committees



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Cost Savings



- Addresses RRC/ACMGE requirements in an organized manner rather than the previous piecemeal approach
 - Allows for central purchases
 - Cost of curriculum development is minimized
- ReDeployment training may decrease the time for physicians to become fully functional
- Demonstrates hospital compliance with Joint Commission recommendations to improve patient safety
- Decrease malpractice costs (claim defense and payments)



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Keys to Long Term Success



- Committed funding
- Continued Command Support
- Report Outcomes
- Adapt and Expand



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The Tri-Service Initiative

It Begins with A Coordination Committee
Service Interests will be Preserved
More Effective and Efficient Training
Centralized Purchasing Reduces Costs



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The Tri-Service Initiative

- Strong Motivation to Succeed with a Unified Approach
- Corresponds to Changes Needed in Civilian Training Environment
- Supports Accreditation and Certification Efforts
- Addresses the Enormous DOD Need for Initial and Sustainment Training



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