Medical Simulation Training Development and Program Support

PROGRAM LIFE-CYCLE MANAGEMENT

GENERAL DYNAMICS
Information Technology
Medical simulation training is now a reliable, intermediate step between didactic instruction and a learner’s first exposure to live patient care. Medical simulation technology accurately recreates real-time events, allowing learners to effectively train and operate in virtually any setting or environment. Medical simulation saves time, lives and money, and continuously improves patient safety, clinical outcomes and your bottom line.

The Case for Simulation Training
Because simulation places emphasis on aural, visual and kinesthetic senses, learners react as they would during an actual scenario without the costly learning curves associated with training tasks. Further, simulation provides realistic practice with total safety since no human or animal models are required. Research indicates simulation training solutions foster leadership and decision-making skills, enabling users to learn more at a much faster rate than traditional methods. Simulation improves effective team training better than any known education system.

During the past decade, simulation training of healthcare professionals has grown at an extraordinary rate. The current challenge is to apply the advantage of simulation training in the right manner, assuring effectiveness of training without wasting resources.

Establishing Results-oriented, Cost-effective Simulation Centers
Medical simulation centers are a mandated, critical resource for graduate medical education, medical skills enhancement and maintenance, accreditation and certification. However, medical simulation centers require a significant level of commitment of resources, facilities, personnel, equipment, infrastructure, operations, maintenance – and most critically – integration with education and training curriculum to achieve and maintain accreditation.

Although they are not currently required for healthcare facilities that do not support medical or nursing education, many institutions are incorporating simulation training into new employee’s orientation training to verify basic procedural skills and to train team-based communication skills.

A case could also be made for requiring simulation training as part of a performance improvement, quality assurance or patient safety program – for example, a surgical rehearsal could be required for high-risk, infrequently performed procedures as a way of improving patient safety.

Significant challenges are encountered when “standing up” simulation centers, and even greater obstacles are commonly associated with keeping it updated, certified, relevant and productive over the long haul. Key questions must be addressed, such as:

- How do you convince hospital administration that a non-revenue producing cost center is in their best interest?
- How do you transform a cost center into a profit center?
- What is the best approach to maximize utilization of center facilities and staff?

General Dynamics Information Technology’s team of health system business and program professionals, simulation specialists and curriculum experts – backed by renowned medical providers – can help you establish and sustain a world-class medical simulation capability and/or a world-class medical simulation center.

Our technology-agnostic approach ensures your medical simulation capability provides the most appropriate solutions and our medical simulation innovation network will accelerate the availability of new ideas and approaches to make your center stand out among the best. Most importantly, we’ll help you build the business case, implement the concept, and help you sustain and grow your medical simulation capability as a key resource and profit center.
FROM NEEDS ASSESSMENT TO OPERATIONAL SOLUTIONS

Consulting Services
- Start-up planning
- Business plan development
- Requirements identification
- Systems engineering
- Sustainment planning

Structural and Functional Center Design/Architectural and Engineering Services
- Center creation - visioning
- Facility assessment
- Master planning
- Site selection studies
- Feasibility studies
- Program justifications
- Architectural design
- Interior design

Curriculum Development Assistance
- Instructor-based curriculum development
- Web-based curriculum development
- Scenario development and management
- Simulation and curriculum integration
- Standards evaluation
- Integration of debriefing into simulation training

Center Operations
- Center staffing
  - Operations manager
  - Administrative support
  - Simulation technician - IT support
  - Facilitators - training assistants
  - Curriculum development staff
  - Faculty development, training and assessment
- Ongoing maintenance support/logistics
- Training events/conference management
- Research support
- Training record management
- Business and resource management

Initial Outfitting - Equipment Evaluation, Purchasing, Installation, Testing, Delivery and Staff Training
- Systems design and integration
- Technology solution evaluations and assessments
- Serious gaming and virtual world solutions
- Simulation and training systems and equipment acquisition
- Multimedia, A/V recording, distribution and archiving systems
- IT and network infrastructure systems integration
- Systems testing and quality assurance

Certification and Accreditation Support
- Pre-application support
- Accreditation standards compliance
- Application support
- Accreditation process support
- Checklist completion
- Survey completion
- Accreditation and certification maintenance
- Accrediting agency liaison

Metrics and Assessment Solutions
- Training task analysis
- Faculty and staff qualification studies
- Trainee assessments
- Instrument and technology assessments
- Data security assessments
- Metrics development and evaluation
Energizing Medical Simulation Centers with Learning Solutions Expertise

Medical simulation centers are necessary tools that help prepare today’s modern medical professionals. Using high-tech simulators, individuals and teams can train and practice new procedures in a variety of environments, including high pressure emergency response situations. Medical simulation centers are most effective in the hands of experienced learning solutions professionals – expert in developing curriculum and applying the most effective learning methodologies.

General Dynamics IT’s award winning team of instructional designers, project managers, clinical subject matter experts, learning technologists, media specialists, facilitators and system integrators can help execute your largest, most complex projects.

The ADDIE Process

- Analysis
- Design
- Development
- Implementation
- Evaluation

- Understanding Content
- Mapping Out the Solution
- Delivering and Implementing the Solution
- Ensuring Quality During Development and After Delivery

Our team works closely with our customers to gain a thorough understanding of learning objectives, business goals, audience requirements and your implementation environment. We apply our experience and expertise to align the right solution at the right time, setting you up for success both now and in the future.

Creating Training Programs Yielding High-Impact Results

General Dynamics IT works with you to design the highest impact, most cost-effective solution. We closely manage budget and scope, then collaborate with you to assess the results.

Following the “ADDIE” Process ensures we understand your situation, needs and content and then map out the best solution before delivering and measuring your medical simulation learning program.

- Award winning
- Broad spectrum of content types and delivery methods
- Cost-effective, proven ROI
- Quick program start-up
We determine the right mix of training modalities – creating a blended approach that leverages the most from your medical simulation capability while considering other effective methods that will help achieve your training goals.

As your program is assessed, designed and developed, your instructional designer and medical consultant determine the right mix of training modalities to utilize, creating a blended approach that leverages the most from your medical simulation capability while considering other effective methods that will help achieve your training goals.

Clients from a variety of industries have achieved meaningful and targeted results from our learning solutions programs:

- 33% reduction in training time and corresponding increase in speed-to-proficiency
- 24% decrease in average errors per 1,000 transactions
- Jump in course completion rates from 10% (previous course) to 90% (new course)
- 58% reduction in improper and inefficient servicing
The medical simulation and training experts at General Dynamics IT help you:

- **Develop and improve individual competence and team communication**
- **Add realism to existing training**
- **Enhance quality improvement, performance improvement and patient safety programs**

**Find Out More.**

Medical simulation paired with blended learning programs is a powerful combination. Our experts offer a deep understanding of medical simulation and training as well as the best practices for designing, developing, implementing and measuring.

Get more information or contact a medical simulation and training professional today:

Online:  [www.gdit.com/MedSimAndTraining](http://www.gdit.com/MedSimAndTraining)
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