

Medical Simulation Corporation

Simantics— Defining the language of simulation

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MSC Opens its First European SimSuite®

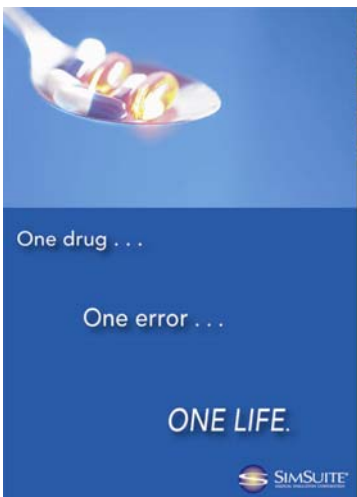
Medication Simulation Corporation has entered into an agreement with Dr. Marc Bosiers and Flanders Medical Research Program headquartered in Dendermonde, Belgium. MSC and the Flanders Medical Research Program team have partnered to provide a complete training experience for physicians and their staff through the use of simulation education, classroom lectures, and observation of live cases. Training experiences range from basic to complex procedures.

MSC also has the capability of deploying the SimSuite to customer sites or congresses. MSC's mobile distribution capability is termed "Windows on Education" and includes the onsite presence of the simulation system, courseware, and clinical specialist support. Societies, manufacturers, hospitals, and provider teams can experience a high-quality training event.

Bill Younkes, CEO of MSC stated, "Our objective in Europe is to serve the medical community with superior training and to partner with the societies in studies of simulation while maintaining the integrity of our education approach." Unlike other simulation training programs, there is no need to purchase expensive equipment that quickly becomes obsolete, develop courseware, or have trainers on staff. MSC partners with its customers to provide education services, develop courseware, and distribute education. This model has proven to be a safe and cost-effective alternative to traditional training programs.



Dr. Marc Bosiers, Head of Vascular Surgery, A.Z. St. Blasius Hospital, Dendermonde, Belgium, instructs a student on the SimSuite System.



Medication Administration: One drug...One error...ONE LIFE.

The U.S. Food and Drug Administration (FDA) estimates as many as 1.3 million Americans are injured by medication errors every year. The IOM report estimates that 44,000 to 98,000 people each year die from medical errors.¹ The report also found that, on average, a hospitalized patient is subject to at least one medication error per day. As of December, 2005, medication errors ranked fourth in frequency for sentinel events according to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

A large percentage of adverse drug events (ADEs) have serious consequences, many of which are preventable. The ADEs identified in a study by Classen et al., half of which were identified as preventable, added 1.91 days to the mean length of hospital stays and resulted in increased costs per stay of \$2,262.² Bates and colleagues determined that an additional 2.2 days of hospitalization were required for patients experiencing an ADE, at an average added cost of \$3,244. For ADEs identified as preventable, patients stayed in the hospital an average of 4.6 extra days, at an average additional cost of \$5,857.³

Medical Simulation Corporation has developed an online course focusing on the fundamentals of medication administration. This didactic course is designed to assess the user's proficiency with medication administration. This course is suitable for new registered nurses, as a competency assessment for per diem staff, or as an adjunct to ongoing JCAHO compliance for staff nurses.

Course Objectives

At the end of this course, the participant will be able to:

- Assess his/her competency with medication calculations
- Identify safe medication administration methods and documentation
- Describe routes and methods of medication administration
- Outline proper orders associated with medication administration
- Identify special considerations that affect proper, safe medication administration

Inside this issue:

Invasive Line Management	2
AMPLATZER® Septal Occluder Simulation Training	3
Employee Spotlight	3
MSC Training Events	4

What Does ONE Invasive Line Infection Cost?

Healthcare-associated infections in U.S. hospitals account for an estimated two million infections and 90,000 deaths annually.¹ Central line-associated blood stream infections (BSI) are the third most common healthcare-associated infections reported by medical/surgical intensive care units participating in the National Nosocomial Infection Surveillance (NNIS) system. Each year, an estimated 250,000 cases of central line-associated BSCs occur in hospitals in the United States, with an estimated attributable mortality of 12 – 25% for each infection.² The marginal cost to the healthcare system is approximately \$25,000 per episode.² The Centers for Disease Control (CDC) has identified catheter-associated adverse events, including BSIs, as one of its seven healthcare safety challenges, with a goal to reduce such complications by 50% in five years.³

Many states are adopting laws that require hospitals to report healthcare-associated infections (HAIs) to state boards, which in turn would disclose the information to the public.⁴ Carlene Muto, MD, director of infectious diseases at Pittsburgh-based UPMC Health System stated, "...hospitals tend to focus on ICUs and target such problem areas as central line infections, which account for 40% of primary bacteremias in ICU patients and also have substantial morbidity and mortality."⁴

Medical Simulation Corporation has developed a self-paced, Web-accessible didactic course to educate healthcare providers on the management of invasive lines and the appropriate prevention practices as recommended by the Centers for Disease Control. The goal of this course is to assist hospitals and their staff in meeting quality

initiatives in decreasing central line infection rates and, ultimately, the morbidity and mortality that follow.

Course objectives:

- Review the indications for invasive line placement
- Identify appropriate treatment modalities associated with each invasive line
- Describe the management and care of invasive line catheters
- Recognize signs and symptoms of infection
- Identify the recommended treatment for infections
- Understand patient teaching for long-term invasive line therapy

Course Description

This course is designed for healthcare professionals who provide routine care for different types of invasive lines. Content includes:

- Pre-test to assess baseline knowledge
- Clinical Indications and Contraindications for Central Line Placement
- Types of Invasive Lines
 - Long Term
 - Short Term
- Routine Management and Care
- Complications
 - Focus on signs and symptoms of infection
 - Recommended treatment
- Post-test

Benefits

- Online convenience and flexibility: available anytime, anywhere
- Self-paced learning

Medication Administration (cont'd from page 1)

The course includes the following:

- Pre-test to assess baseline knowledge
- Difference between generic and trade drug names
- JCAHO standards
- Five Rights of Medication Administration
- Adverse Drug Reactions
- Medication Administration Record: Documentation
- Drug Metabolism
- Medication Administration
 - Drug Forms
 - IV Administration
 - Injections
 - PO Administration

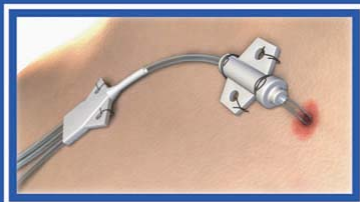
- Patient Populations and Special Considerations
- Drug Calculations
- Post-test

Benefits

- Online convenience and flexibility: available anytime, anywhere
- Self-paced learning
- Augments staff competence in medication administration
- Consistent with JCAHO standards

This course provides a complementary solution to the quality improvement programs for all institutions striving to decrease the number

WHAT DOES ONE INVASIVE LINE INFECTION COST?



SIMSUITE

- Guideline driven
- Consistent with JCAHO standards
- Integration into Quality Improvement Programs

To schedule a training session, contact your SimSuite Clinical Educator.

References:

- ¹Weinstein RA. *Nosocomial infection update*. Emerg Infectious Disease 1998; 4:416-20.
- ²CDC. *Guidelines for the prevention of intravascular catheter-related infections*. MMWR 2002; 51 (No. RR-10).
- ³CDC. *Issues in healthcare settings: CDC's seven healthcare safety challenges*. Atlanta, GA: US Department of Health and Human Services, CDC; 2001.
- ⁴State reports on infection rates. *Materials Management* 2006.

of medication errors and enhance patient outcomes. To schedule a training session, contact your SimSuite Clinical Educator.

References:

- ¹Institute of Medicine. *To Err is Human: Building a Safer Health System*. Washington D.C.: National Academy Press; 1999.
- ²Classen, David, C., Stanley, L. Pestotnik, R. Scott Evans, et. Al. *Adverse Drug Events in Hospitalized Patients*. Journal of the American Medical Association 277(4): 301-06 (Jan. 22/29, 1997).
- ³Bates, David W., Nathan Spell, David J. Cullen, et al. *The Costs of Adverse Drug Events in Hospitalized Patients*. Journal of the American Medical Association 277(4): 307-11 (Jan. 22/29, 1997).

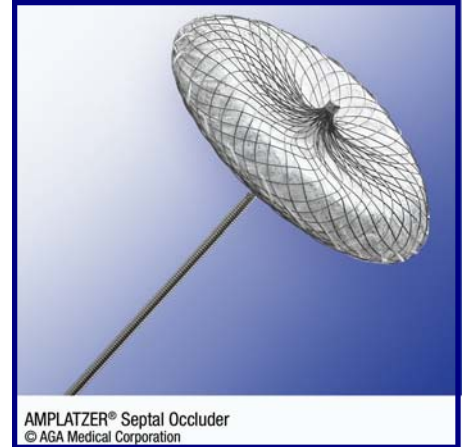
AMPLATZER® Septal Occluder Simulation Training

AGA Medical Corporation has partnered with Medical Simulation Corporation to create and deliver advanced simulation training on AGA Medical's AMPLATZER Septal Occluder. The AMPLATZER Septal Occluder is FDA approved for transcatheter closure of Atrial Septal Defects (ASD), which are congenital abnormalities characterized by structural deficiency of the atrial septum in the heart. This was the first device to be approved in the United States for closure of these types of congenital heart defects. This is the second simulation program offered by AGA in conjunction with MSC. The initial program was introduced in the fall of 2005 as a training tool for the AMPLATZER PFO Occluder device, a transcatheter approach to achieve closure of a Patent Foramen Ovale (PFO).

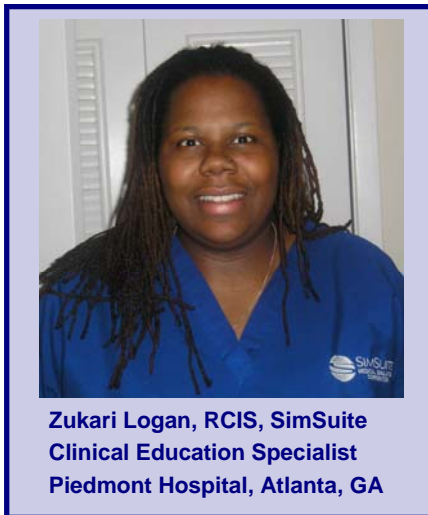
The AMPLATZER Septal Occluder simulation training includes three simulated patients that are indicated for Atrial Septal Defect closure: one mid-sized defect, one large defect, and one multi-fenestrated septal defect. AGA Medical and MSC featured the live case simulations and

physician presentations for this new simulation program at the AGA Medical sponsored "Pre-PICS Symposium" held at the Pediatric and Adult Intervention Therapies for Congenital and Valvular Heart Disease (PICS) Conference on September 10, 2006, in Las Vegas, NV. Over 500 attended the simulated "live case" presentations—the first performed by Dr. John P. Cheatham, utilizing the Septal Occluder device; and the second performed by Dr. Carlos Ruiz, utilizing the PFO Occluder.

Training on both devices was then offered to both U.S. and International Cardiologists attending the PICS Symposium who are not currently certified implanters of an AMPLATZER ASD or PFO Occlusion device. Twenty physicians successfully completed the AMPLATZER ASD or PFO simulation training and received a certificate of completion for the simulation training requirement. The demand for training at PICS was extremely high; therefore, AGA Medical will be scheduling additional training opportunities using the SimSuite on a regular basis.



Employee Spotlight



Zukari Logan joined the MSC team almost two years ago and has made a tremendous impact at the SimSuite Center located at Piedmont Hospital in Atlanta, GA. Born in Rochester, NY, Zukari brings over 18 years of

clinical experience which includes 13 years in the cardiac catheterization laboratory and eight years serving as a Navy Hospital Corpsmen in the areas of Emergency Room, General Surgery, GYN surgery, and Cardiology. In 2002, Zukari completed her bachelor's degree in Information Technology, and in 2005, she obtained a master's degree in Business Administration. She has held her Registered Cardiovascular Invasive Specialist certification since 1992.

Zukari has developed a formalized curriculum for Piedmont Hospital's new graduate critical care nurse interns. The program is five months in duration, training four to five interns per group. During their critical care program, each intern spends two hours per week in the SimSuite reinforcing basic skills and introducing new skill sets. Training in-

cludes lecture and simulation. Beginning in August 2006, all new graduates will be directed to the SimSuite for generic training: ECG interpretation, sepsis management, heart failure, 12-lead ECG, and other programs.

Zukari's thoughts on SimSuite: "Speaking from a cardiovascular invasive procedure aspect, I wish this type of training was available 13 years ago. Simulation training is phenomenal. It allows participants to learn from any and all mistakes and get a true understanding of the patients they are responsible for treating. I am very excited on the growth of this industry and MSC's future."

In her spare time, Zukari works off the day's stress at the gym. She enjoys spending time with her immediate family—her 12-year old son, Tariq, and 9-year old daughter, Jade.

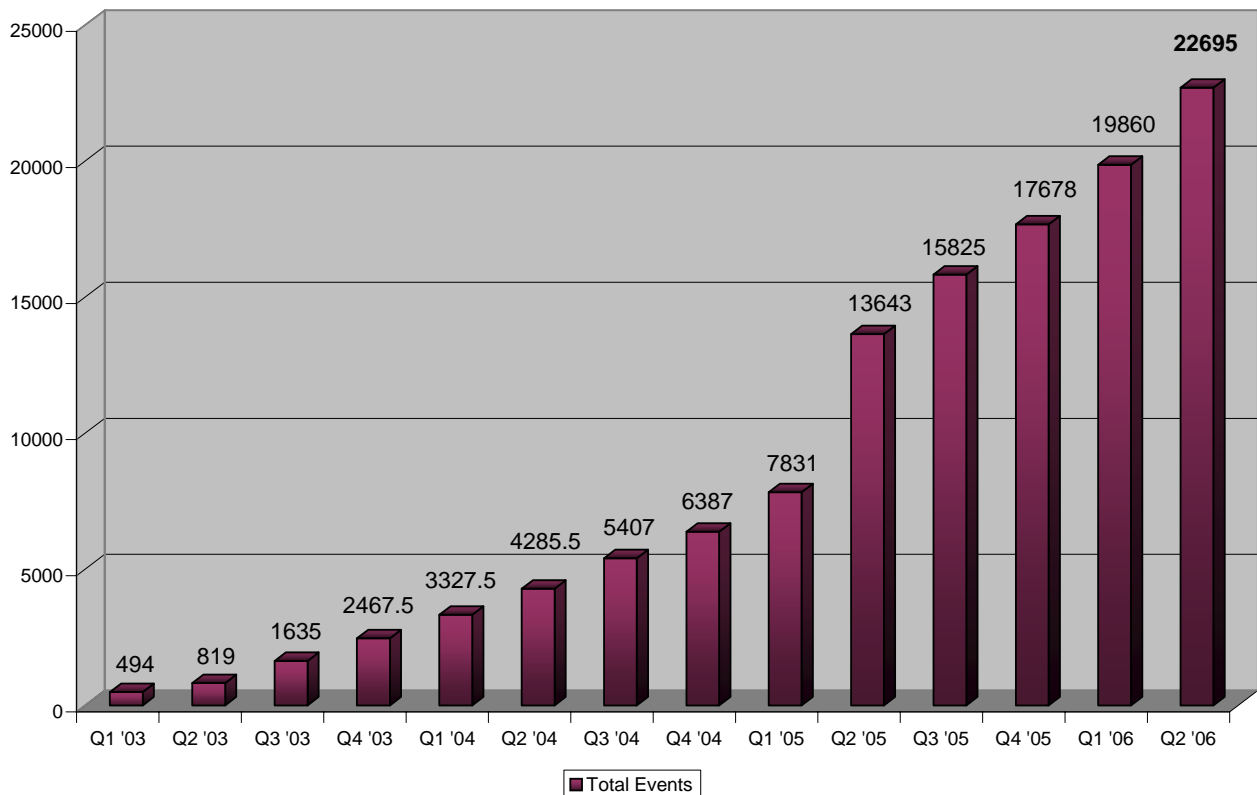


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Experience Through Education™

Graph below depicts utilization within SimSuite Education Centers in addition to custom training events, carotid education programs, and training that occurs at trade shows and medical conferences.

Total MSC Events



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