

A QUARTERLY PUBLICATION FOR EMERGENCY HEALTHCARE WORKERS

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### SIMULATION IN MOTION - SOUTH DAKOTA (SIM-SD)

Many pre-hospital and hospital emergency care personnel in South Dakota only encounter a critically ill or injured patient once or twice a year. SIM-SD is a one-of-a-kind mobile education program designed to give providers the chance to encounter a similar



'patient' multiple times with focused feedback in a managed-stress environment.

SIM-SD 'patients' are some of the most technologically advanced training tools available to the medical community today. These 'patients' are human-like, computerized mannequins (human patient simulators). They are crucial in helping emergency care personnel improve their skills as providers, communicators and team members, which ultimately positively impacts patient care for all South Dakotans.

SIM-SD is proudly brought to you by a partnership between the South Dakota Department of Health, Avera Health, Mobridge Regional Hospital, Regional Health, St. Mary's Healthcare Center and Sanford Health. The Office of Rural Health, Department of Health administers this statewide educational program.

#### **MOBILE LEARNING LABS & OUTREACH VEHICLES**

SIM-SD brings a quality educational experience directly to emergency care providers' communities.

Avera Health, Regional Health and Sanford Health each own a



fully equipped, 44-foot custombuilt mobile learning lab, built by Rosenbauer America, located in Lyons, SD. Each lab emulates both an ambulance (in the rear of the truck) and an emergency room (in the front). The center of the mobile learning lab is a computer control room that allows for the operation of the patient simulators.

In addition to the mobile learning labs, two smaller outreach vehicles are also available to provide training. St. Mary's Healthcare Center and Mobridge Regional Hospital operate the outreach units and provide localized training in the central portions of South Dakota. Both the Mobile Learning Labs and the Outreach

Units are equipped with human

patient simulators and a standardized educational curriculum to ensure that everyone



who participates in SIM-SD receives a quality training experience.

The mobile learning labs and outreach vehicles were provided through grant funding from The Leona M. and Harry B. Helmsley Charitable Trust.

# VITALSIGNS

#### **SIMULATORS & SCENARIOS**

The SIM-SD state-of-the-art human patient simulators are lifelike: they breathe, talk, cry, react to medicines and die, just like humans. But, they come back to life again. The simulators are used to deliver hands-on SIM-SD education so that emergency care personnel can practice their skills repeatedly.

All SIM-SD partners have a variety of human patient simulators

available for training purposes: an adult (iStan/METIman), a child (PediaSIM) and an infant (BabySIM). Scenario programming has been developed for each of the human patient simulators. This programming helps emergency care personnel better provide care in real emergency situations.

iStan/METIman has seven programs available:

- Medical (2)
- Respiratory
- Trauma (2)
- Cardiac
- Neurologic

PediaSIM and BabySIM have three programs available:

- Medical
- Respiratory
- Trauma



#### **SIMULATORS**

iStan is the most advanced wireless patient simulator on the market, with internal robotics



that mimic human cardiovascular, respiratory and neurological systems. When iStan bleeds, his blood pressure, heart rate and other clinical signs change automatically, and he responds to treatment with minimal input from an instructor. With a realistic airway, articulated joints and

blood on board, iStan has full mobile simulation capabilities.

A reproduction of a six-year-old child, **PediaSIM** supports a wide range of clinical interventions



and offers risk-free practice for pediatric clinical care. PediaSIM offers the integrated METI physiology in a smaller practice patient with full trauma features for both nursing and emergency response.

BabySIM is an infant-sized simulator with advanced physiology



for the practice of life-saving care. BabySIM generates automatic responses to clinical interventions to prepare healthcare professionals for emergency and critical infant care in a low-risk setting. (information courtesy CAE Healthcare)



## **FEATURED INSTRUCTOR** DARREL BRIMM, REGIONAL HEALTH

Meet Darrel Brimm. Darrel is the Nurse Educator - Simulation at Rapid City Regional Hospital. Darrel has been a Registered Nurse for 16 years. He has been at Rapid City Regional Hospital since graduating from South Dakota State University in Rapid City, South Dakota with a Bachelor's Degree in Nursing. Darrel's experience includes 6 years in the Emergency Department, 3 years in Life Flight, 3 years In the Surgical Intensive Care Unit and

4 years as a Nurse Supervisor with Regional Medical Clinic. He is currently an ACLS instructor and is TNCC certified.



#### **FEATURED SERVICE**

SIM-SD partners have been actively providing training for nearly two years! Thousands of miles have been logged and hundreds of individuals have been able to partake of this unique training opportunity.

Our 'Featured Service' this edition is the Jerauld County Ambulance Service. Jerauld County Ambulance is a county owned service housed at the hospital in Wessington Springs, South Dako-

ta. There are currently 7 active EMTs and 1 E-VOC driver working with the service. Last year Jerauld County Ambulance responded to 110 calls as well as provided service to local community events, football games and fire department structure calls.

The Avera Health SIM-SD partner has worked with the Jerauld County Ambulance Service to provide outreach education. Richard Powell, Director of the

service says, "We were fortunate to have Chad Skiles coordinate with SIM-SD to have the Simulator at our regular training soon after it was available. It was both educational and fun to work with the staff from SIM-SD. We feel that it will fill a void in the state to have equipment that is life-like to work with and then be able to go back and view the interactions with the simulator to see how we can improve our patient care."



#### **SCRUBS CAMPS**

Scrubs Camps are one day, hands-on health career learning opportunities for high school students. The camps are sponsored by the Office of Rural Health (ORH), who is also responsible for the administration of the SIM-SD program.

SIM-SD has graciously agreed to

assist ORH in promoting health careers to South Dakota students. When requested, SIM-SD teams will attend the camps to help students learn about careers in emergency medical services. Students are given the opportunity to experience the human patient simulators and learn about becoming an EMT,

Paramedic or nurse.

To learn more about Scrubs Camps or to see if there is a camp in or around your community, visit www.scrubscamps.sd.gov. For additional information, contact Halley Lee:

Email: Halley.lee@state.sd.us Phone: 605.773.6320.



#### **EMS LEADERSHIP ACADEMIES**

Recognizing the critical importance of leadership and medical direction in the preparedness of rural emergency medical services (EMS) in South Dakota Office of Rural Health funded an important development project during 2011. This project enabled 66 ambulance service and fire department leaders and managers from 46 ambulance services across the state to participate in an EMS

Leadership Academy. It also enabled 129 EMS medical directors to receive South Dakota-specific educational material on rural EMS medical direction.

The Office of Rural Health offered additional EMS Leadership Academies I and II for Ambulance Service Directors in 2012. These classes were offered in Sioux Falls and Rapid City.

EMS Leadership Academies I, II and III are currently being planned by the Office of Rural Health and will be offered during 2013.

To view the academy document, visit www.sim.sd.gov, click on about and click on the last bullet in the list.







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**HOW DO WE GET SIM-SD IN OUR COMMUNITY?** 

# SIM-SD's priority is to provide outreach training to local EMS and hospital personnel. If you have not yet been contacted by one of the SIM-SD partner sites and are interested in scheduling a SIM-SD training in your community, visit the SIM-SD website at www.sim.sd.gov. Click on the blue box that says "Schedule a Training Session" and fill out the request form. Please note the instructions at the top of the form and complete the form with as much detail as possible. Your request will then be forwarded to the appropriate SIM-SD partner for scheduling. Any questions regarding scheduling, please contact Karen Cudmore at 605.773.2679 or karen.cudmore@state.sd.us.



#### FOR MORE INFORMATION:

For more information on SIM-SD, please visit www.sim.sd.gov or contact Halley Lee at 605.773.6320 or via email at Halley.lee@state.sd.us

