Genesis Launches Alert to Bring Rapid Care for Heart Attacks

Research shows that the sooner patients with acute ST-elevation myocardial infarction (STEMI) receive emergency angioplasty, the better their odds of survival and successful recovery.

To expedite their care, Genesis Medical Center, Davenport, has launched a heart attack alert that mobilizes paramedics and a broad spectrum of hospital staff to respond. The goal: to open up the heart’s clogged arteries in a cardiac catheterization lab within 90 minutes of the patient’s arrival to the Emergency Department. The “M.I. Alert” began June 1.

A New Standard of Care

Treatment for heart attack has undergone rapid change over the past two years. A significant Danish study (DANAMI), published last summer in the New England Journal of Medicine, shows that patients who had angioplasty for STEMI had superior outcomes to those treated with fibrinolytic therapy. (1)

“Administering thrombolytic drugs alone is no longer cutting-edge,” said cardiologist Randolph Lewis, M.D., Cardiovascular Medicine, P.C. “The new national standard is to receive treatment with balloon angioplasty in a medical center that has the facilities to provide it. At Genesis East, we can give them the treatment of choice – angioplasty – in the only Cardiac Cath Lab in the Iowa Quad Cities.”

The East Rusholme Street campus currently has six state-of-the-art cardiac catheterization labs. It has permission from the state of Iowa to build two more, the first of which is expected to open in July.

Responding to a 911 call, emergency medical technicians, or EMTs, will advise the hospital’s Emergency Department of a potential M.I. Alert whenever a 12-lead electrocardiogram shows a “ST-segment elevation.”

“The EMTs are our eyes and ears out in the field,” said cardiologist Eric Dippel, M.D., Cardiovascular Medicine, P.C. “Their role is crucial, particularly because many times precious time is lost when people postpone calling 911 at the onset of heart attack symptoms.”

The alert simultaneously notifies the Emergency Department, Cath Lab and affected hospital staff, including nurses, phlebotomists, Pharmacy, Respiratory Care, Cardiopulmonary and Security. The hospital begins responding before the patient even arrives.

Fueling the need for an M.I. Alert is a new standard from the American College of Cardiology that calls for opening the artery with balloon angioplasty within 90 minutes of reaching the hospital.

“With an M.I. Alert, the Cath Lab is aware much sooner that a patient is on the way,” said Cindy McGee, Manager of the Cardiac Cath Lab. “Our timeline is to have the patient in the Cath Lab and his or her artery open within the national standard of 90 minutes or less.”

The Genesis alert comes amid aggressive new national guidelines, published June 14, that call for quick treatment of STEMI. According to the latest report from the American Heart Association and the American College of Cardiology, approximately 500,000 Americans have this type of heart attack each year. The report urges everyone who experiences worsening chest pain over 5 minutes to call 911, particularly if they feel short of breath, weak or lightheaded.

The guidelines are published on the AHA and ACC Web sites (www.americanheart.org and www.acc.org) and also appeared in the June 15 issue of the medical journal Circulation.

In conclusion, the best way a heart attack victim can improve his or her chances for survival and quality of life after a heart attack is clear, said Richard Vermeer, D.O., Davenport Emergency Medicine Physicians, P.C., and Medical Director of the Genesis Emergency Department.

“Call 911 immediately when you notice symptoms. Don’t delay and get to a hospital that has a Cardiac Cath team and can open the arteries sooner and save heart muscle,” Dr. Vermeer said. “Genesis East is able to provide the highest level of care to a person having a heart attack in the Iowa Quad Cities. Going anywhere else will only delay the process.”

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Genesis Selects New Executive Director of Cardiac Services

Sharon Timmons, BSN, MS, is the new Executive Director of Cardiac Services for Genesis Medical Center, Davenport.

In her new role, she will oversee operations of the cardiac services line and the Genesis Heart Institute, a regional network of heart specialists treating patients from more than 12 counties in Iowa and Illinois.

Timmons, who began her duties May 17, has more than 20 years of health care experience. Previously, she served as Chief Operating Officer at New Hanover Health Network in Wilmington, N.C., where she was instrumental in developing its cardiac service line. She also has served in staff and management positions in a variety of cardiac care settings, including coronary care, step-down and pediatric cardiac surgery.

“We had the opportunity to work with Sharon last year in an advisory capacity, and we were impressed with her ability to comprehensively assess complex situations, which is what this position requires,” said Carole Reid, RN, MSN, Vice President of Patient Services at Genesis Medical Center, Davenport. “She brings to Genesis a broad set of skills encompassing clinical, operational and quality expertise.”

“When I was first introduced to Genesis, I was hooked,” Timmons said. “It is the caring and compassionate staff, volunteers and physicians coupled with the maturity of this program and the commitment to clinical excellence, research and technology that made me realize that Genesis is a world class leader in heart care. This is where I wanted to be.”

She received her Bachelor of Science in Nursing from Capital University in Columbus, Ohio and her Masters of Science degree from The Ohio State University, also in Columbus. Her husband, Steve, will join her in the Quad Cities.

1st Phase of Devils Glen Development Opens

The new Genesis Imaging Center and a satellite office of the Genesis Center for Breast Health opened to patients on June 14 at Genesis Medical Park on Devils Glen Road, Bettendorf.

The Genesis Imaging Center offers ultrasound, CT (computed tomography) and MRI (magnetic resonance imaging) technology in an outpatient setting, giving patients improved access and convenience. “We can virtually duplicate the same type of imaging technology, techniques and protocols used in our hospital setting at the Bettendorf location,” said Patrick Engelhaupt, Radiology Manager at Genesis Medical Center, Davenport.

At the satellite office of the Center for Breast Health, patients will find the same state-of-the-art mammography and bone densitometer equipment offered at the center’s main facility at Genesis Medical Center, East Rusholme Street.

Culminating the $6.6 million development will be the completion of an expanded FirstMed urgent care center in mid-July. Also on the site, the office of Bettendorf Medical Center, P.C., has been expanded, and Bettendorf Pediatric and Family Practice Associates has undergone renovations. In September, the $8.3 million Bettendorf Family YMCA will open on the site at Devils Glen Road and Tanglefoot Lane. Inside the Y, a 12,000-square-foot Genesis Cardiac and Pulmonary Rehab Center will provide medically supervised wellness activities.

Research, Full-Service Facility Best for NSTEMI Patients

Recent research from Duke Clinical Research Institute shows it can be the difference between life and death when high-risk cardiac patients are not transported to full-service facilities that perform angioplasty or coronary bypass procedures, such as Genesis Medical Center, East Rusholme Street.

The CRUSADE registry, coordinated by Duke, focuses on those heart patients with unstable angina or non-ST-segment elevation myocardial infarction (NSTEMI).

The in-hospital mortality rates for the 57,039 patients currently in the registry are as follows: hospital without catheterization laboratory – 9.6 percent; hospital with a diagnostic catheterization laboratory only – 9.2 percent; hospital with angioplasty capabilities – 6.3 percent; hospital with angioplasty and bypass surgery capabilities – 4.2 percent.

“Even if there’s a transfer delay, these patients are still better off being transported to a facility like Genesis with angioplasty and bypass surgery capabilities,” said Dr. Eric Dippel, Cardiovascular Medicine, P.C.
Electrophysiologist Michael Giudici, M.D., recently had the honor of presenting research conducted at Genesis Medical Center to an international audience. He presented to more than 5,000 physicians during a meeting of the European Society of Pacing and Electrophysiology from June 16-19 in Nice, France.

Dr. Giudici, Cardiovascular Medicine, P.C., specializes in the treatment of abnormal heart rhythms and has been actively involved in the research and development of numerous devices and techniques in the placement of pacemakers and defibrillators. This is the sixth time he has presented in Nice.

In France at the 14th World Congress – Cardiostim 2004, Dr. Giudici lectured on the optimal placement of right ventricular pacing leads, based on research conducted at Genesis Heart Institute. “My talk focuses on making the heart pump better and preventing long-term decline in heart function that can sometimes occur with pacing,” he said. “This has been the result of work we’ve been doing since 1992. The rest of the world is catching on.”

Fueling the worldwide interest is unfolding research that shows that placing pacemaker leads at the apex of the heart – the way it has been done since the advent of pacemakers 30 years ago – can bring long-term problems with declining heart function.

“For years, we were fighting Mother Nature and making electricity flow in the opposite way it normally flows in the heart,” Dr. Giudici said. “At Genesis, we’ve been doing it differently for 10 years – pacing into the the normal conduction system of the heart by simply moving the pacing lead to another location closer to the base of the heart. This makes the heart pump better and utilizes the patient’s native conduction system.”

He added, “Now the issue is becoming a hot topic, and people are looking to Genesis as the expert.”

Dr. Giudici also chaired a session and presented two research papers — “Feasibility of Upgrading ICDs to Heart Failure Devices” and “Right Ventricular Outflow Septal Pacing is Cardiac Resynchronization Therapy in Patients with Right Bundle Branch Block.”

As chair of the Genesis Heart Institute Research and Education Committee, Dr. Giudici leads a team of heart specialists conducting clinical trials for drug therapy, electrophysiology and interventional cardiology. At any one time, there are about 30 clinical trials underway, and the Genesis Heart Institute has a research staff of seven to assist physicians and patients through the research process.

“Patients benefit from our active research program, often receiving treatment that improves the quality of their lives much sooner than treatment options are available elsewhere,” Dr. Giudici said. “It shows you can do important research right here in Davenport.”

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Genesis’ Rehab Programs Earn 5 Accreditations

**Brain injury programs serve unique niche**

Physical Medicine and Rehabilitation Services at Genesis Medical Center, Davenport, recently earned accreditations that set its brain injury programs apart from other hospitals in the Quad Cities and the state of Iowa.

Genesis’ inpatient and outpatient brain injury rehabilitation programs received first-time accreditation from the Commission on Accreditation of Rehabilitation Facilities, or CARE.

**The Distinction Makes Genesis:**

- The only hospital in Iowa with an accredited Brain Injury Outpatient Program.
- One of few hospitals in Illinois with accredited brain injury inpatient and outpatient programs. The closest are in Rockford and suburban Chicago.

**Specializing in Brain Injury**

“This is very good for the Quad Cities community,” said Conway Chin, D.O., Medical Director, Genesis Physical Medicine and Rehabilitation Services, Davenport. “It’s somewhat of a standard to have adult inpatient programs. But to have specialized accreditations in brain injury rehabilitation for both inpatient adults and children and outpatient adults is a very unique accomplishment.”

He added, “This is also something for physicians to keep in mind when they have patients who leave the area for intensive care for critical brain injuries. Their patients can come back to the Quad Cities and receive nationally accredited brain injury services at both the inpatient and outpatient levels.”

Genesis has been taking care of brain-injured patients for more than 20 years but didn’t have a formalized program dedicated to brain injury patients until a year ago. “We decided it was time to move to that next level and really offer specialized care to those patients,” said Jan King, Director of Physical (continued on next page)
Frank Claudy, M.D., Vice President of Medical Staff Affairs, spoke on clinical hypothesis formulation and testing on May 2 at the annual meeting of the Iowa Osteopathic Medical Association in Des Moines.

Michael Giudici, M.D., authored the article “Right Ventricular Outflow Tract Placement of Defibrillation Leads – Five Year Experience,” which appeared in the April 2004 issue of PACE (PACE 2004; 27:443-446). The article looks at Genesis’ experience with improved pacing techniques to preserve heart function in defibrillator patients. Over a five-year period, 112 patients underwent right ventricular outflow tract (RVOT) placement of permanent active-fixation transvenous pacing/defibrillating leads. The study concludes that RVOT pacing-defibrillation lead implantation is “safe, efficacious, and potentially attractive because preliminary evidence suggests that it may not be associated with the adverse hemodynamic effects of pacing at the right ventricular apex.”

Assisting in the research were: S. Serge Barold, M.D., of Tampa General Hospital, Tampa, Fla.; Deborah Paul, Genesis research coordinator; Phillip Schrumpf of Guidant; and electrophysiologists Kent Van Why, M.D., Cardiovascular Medicine, P.C.; and D.W. Orias, M.D., formerly of Cardiovascular Medicine.

James F. Paul, D.D.S., M.D., has achieved certification as a Diplomate of the American Board of Oral & Maxillofacial Surgery.

Richard Sadler, M.D., gave two presentations – “The Case for Early Diagnosis and Treatment of Lung Cancer” and “Aortic Dissection: Missed Diagnosis Catastrophe” on May 22 at the Cancer and Cardiology Conference of the Iowa Academy of Family Physicians in Council Bluffs, Iowa.

Thomas J. Stoffel, M.D., Quint Cities Radiation Oncology, was inducted as a Fellow in the American College of Radiology at a formal ceremony during the recent annual meeting in Washington, D.C.

Rehab Programs Earn Accreditations

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Medicine and Rehabilitation Services, Genesis Medical Center, Davenport. “We’re thrilled to earn this accreditation.”

At Genesis, two of six inpatient rehabilitation teams have been designated to serve patients with traumatic and non-traumatic brain injuries resulting from injuries to the head or illnesses like hypoxia, infectious disease, stroke or tumor. The brain injury teams consist of physicians, nurses, therapists, social workers, and psychologists who have received special training to care for patients with cognitive and behavioral problems, King added.

Aside from the brain injury programs, Genesis again received accreditation for its pediatric and adult Comprehensive Integrated Inpatient Rehabilitation Programs, which have been accredited for 21 straight years dating back to 1983.

The three-year accreditations in five areas cap a year of intense, in-depth self-assessment of Genesis’ rehabilitation programs and a thorough visit by a CARF survey team April 19-20.

The CARF survey team found the Genesis Regional Rehabilitation Program to have strengths in many areas. According to the report, “Genesis continues to provide an excellent service to the Quad Cities area through continued development and expansion of programs and services.” The report goes on to say, “Patients benefit from the services provided by knowledgeable and dedicated personnel, and leadership that has a strong community presence and serves as an advocate for patients.”

The CARF accreditations mean patients and families can be assured that Genesis programs meet rigorous guidelines for service and quality and conform to nationally and internationally recognized standards.

Andrea Y. Coleman, CEO of Genesis Medical Center, Davenport, congratulated rehab staff on their accomplishments. “Thank you for your daily commitment to providing the highest level of rehabilitation care to our patients and their families, for your dedication to patient satisfaction, and for helping Genesis to reach new heights of excellence in health care,” she said.
Electronic Patient Tracking

Genesis’ E.D. debuts new system

In the Emergency Department, every minute can bring new and unexpected patient care challenges. To keep ahead of the constantly changing environment, Genesis Medical Center, Davenport, has installed a new electronic patient triage, tracking and documentation system.

FirstNet, Emergency Department Information System provides the right information at the right time to keep the Emergency Department (E.D.) running more efficiently — from triage through discharge. Set to go live June 15, the on-line documentation and tracking system by Cerner Corp. goes on a performance “dashboard” or tracking board that helps assess up-to-date information on patient location, flow and throughput on both the East Rusholme Street and West Central Park campuses.

Events and notifications displayed on the tracking board warn of bottlenecks before they become a problem. Staff can quickly check patient status; generate accurate reports; monitor resource availability; and view tests results.

A Unified System

“With this system, we will be able to monitor what’s going on in multiple areas of the Emergency Department, whether it’s in the waiting areas, our Fast Track area, the area of the E.D. that takes care of acute patients or the Chest Pain Observation Unit,” said Carla Roman, Director of Trauma and Emergency Services. “We will be able to monitor what’s going on in all areas of the E.D. and to react proactively as it’s occurring.”

Cerner FirstNet is unified with the hospital’s information system and can provide a seamless view of orders and their status, which immediately posts to the tracking board. Staff can simply click on the tracking board to retrieve information directly from the patient’s electronic medical record. E.D. providers and medical staff can rapidly enter, view and validate orders; communicate with other departments online; and view order results.

“The system will tell us which of the patient’s tests are ordered and back,” Roman said. “It also helps to track how critical the patient is.”

The main tracking board is located within the E.D., but every staff member also can pull it up on the computer, as well.

“In the first stage, nurses will do their documentation online,” Roman said. “In the next couple of months, physicians will document online as well. We will help them look up whatever they need, but it’s very important that they know their password to gain access.”

Improving Patient Flow

The system is the latest in a series of changes that will improve patient flow through the E.D.; limit upfront delays; and ultimately increase patient satisfaction. Information Technology and Emergency Department representatives from Genesis Medical Center’s Davenport, Illini and DeWitt campuses began exploring Emergency Department information systems about two years ago.

“We felt this would provide great value to our patients and to the Genesis organization because our Emergency Departments are an important portal into our care process,” said Shirley Gusta, I.T. Manager of Application Services. “It’s one component in our health system’s evolution toward a complete electronic medical record and seamless flow of information.”

The system will go live at the Illini Campus in late summer and at DeWitt by the end of the year. “Activity and documentation that is occurring within the Cerner FirstNet system will also be updating our Cerner clinical data repository,” Gusta said. “As we care for patients across the health system, this clinically relevant information will then be available for the care providers, as appropriate, for the continued care process.”

The system coincides nicely with a new GMC effort called A.C.T. (Access, Convenience and Throughput), which is looking at ways to increase inpatient bed capacity and eliminate barriers to timely treatment, she added.

Fast Track Update

Also as part of this effort, “Fast Track” service launched in April to help reduce waiting times in the E.D. This allows patients with less severe conditions to be seen by a nurse practitioner — in a separate area from those requiring more critical care services. It’s for patients with minor ailments, such as sore throats, fevers, sprains, ear infections, upper respiratory problems and minor cuts and abrasions. Service is from 10 a.m. to 10 p.m., seven days a week, at both campuses.

The success of the new service is evident from patient surveys that say comments like: “It’s the best thing you’ve all come up with” to “It was the fastest time I ever spent in the Emergency Department” and “Service has greatly improved. I’ll return in the future.”

Recent statistical data collected on Fast Track over 11 days shows that the median time was 63 minutes from patients’ arrival to discharge – far exceeding the target of 90 minutes.

“We were within our target 70 percent of the time,” Roman said. “The patients really love it. In general, the whole concept of being able to cycle patients through more expeditiously is really going well.”
CME Calendar

**Cancer Conferences**
**Date:** July 1, 8, 15, 22, 29, noon
**Adler Education Center**

**Lung Cancer Now**
**Date:** June 29, 5:30 p.m.
**TPC at Deere Run**
**Speaker:** Richard Sadler, M.D., and Costas Constantinou, M.D.

**DVT**
**Date:** July 6, 5:30 p.m.
**Adler Education Center**
**Speaker:** Peter Kaboli, M.D.

**Trauma Conference**
**Date:** July 7, noon
**Adler Education Center**
**Topic:** Pediatric Orthopaedic Emergencies
**Speaker:** Michael Pyevich, M.D.

**Quadriceps Muscles Sparing Total Knee Arthroplasty**
**Date:** July 8, 5:30 p.m.
**Adler Education Center**
**Speaker:** John Hoffman, M.D.

**DeWitt CME**
**Date:** July 20, noon
**GHG Office in DeWitt**

**Cardiology at the Bix**
**Date:** July 23, 8 a.m.
**RiverCenter, Mississippi Hall**

**Neuroscience Grand Rounds**
**Date:** July 28, noon
**GMC West Campus Conference Center**

**Hawaii Primary Care Conference**
**Date:** November 7-12
**Fairmont Kea Lani, Maui**

If you have any questions, please call Jody Johnston, Genesis CME Coordinator, (563) 421-1284.