

Hartford Hospital improves emergency cardiac care

Patients' chances of surviving severe heart attacks may be significantly improved

A patient's chance of surviving a severe heart attack (medically known as a ST Elevation Myocardial Infarction - STEMI) may now be significantly improved, thanks to a newly-organized response system between Hartford Hospital and



local paramedics from the AETNA and ASM services. Hartford Hospital is the only hospital in Connecticut that has implemented this advanced technology, which reduces precious time in treatment during the most critical period of a heart attack.

Emergency Percutaneous Coronary Intervention, a procedure to treat the stenotic (narrowed) coronary arteries of the heart, is the optimal and preferred treatment for patients suffering from a STEMI, if performed in a timely manner.

The newly implemented system allows pre-hospital communication between the first responders and Hartford Hospital. First responders will securely transmit pre-hospital ECG data to the Hospital's Emergency Department, which determines whether the patient is suffering from a STEMI. If the diagnosis is confirmed, the Hospital's Cardiac Catheterization Laboratory immediately begins preparing for the patient's arrival so emergency catheter-based intervention can be initiated immediately upon the patient's arrival, bypassing several delaying steps.

With this multidisciplinary initiative in place, significant time is saved during the critical period of treating a heart attack. The Hospital's

The physician team that helped make this pre-hospital cardiac response system a reality are (from left) doctors Paul Thompson, Chief of Cardiology; Raymond McKay, director of Interventional Cardiology Research; Marcin Dada, associate director of the Chest Pain Center; A. Jon Smally, medical director of Emergency Medicine; and Justin B. Lundbye, medical director of Cardiac ICU.

goal is to minimize the time it takes to treat a patient experiencing a cardiac emergency, as each 15-minute segment saved during this period is associated with 6.3 fewer deaths per 1,000 patients, according to the National Registry of Myocardial Infarction.

By acting in parallel rather than in a series of sequential, time intensive steps, the components of the STEMI care system can be optimized to best treat our patients.

This process has already shown some early successes. A patient recently contacted 9-1-1 on a Saturday at approximately 8:00 p.m. When paramedics arrived, they administered an ECG and sent the data to the Hospital's Emergency Department. A

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positive STEMI notification activated the organized response system and the patient was ultimately successfully treated in the Cath Lab, with an outstanding door-to-balloon time of 74 minutes. This successful outcome was made possible by a terrific response from the Cath Lab, the Chest Pain Center, the Emergency Department and EMS.

Putting forth tireless efforts in making this system a reality were doctors Paul Thompson, chief of Cardiology; Raymond McKay, director of Interventional Cardiology Research; Marcin Dada, associate director of the Chest Pain Center; A. Jon Smally, medical director of Emergency Medicine; and Justin B. Lundbye, medical director of Cardiac ICU.

It is important to note that Hartford Hospital already does a better job of treating heart attack patients than the average U.S. hospital, and we expect this system to improve our outcomes even further. Last October, the Centers for Medicare & Medicaid Services reported that Hartford Hospital was one of only 17 hospitals nationwide with a lower-than-expected death rate during severe heart attacks.