



Emergency Medical Services *Partners*

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21 Minute Door-to-Balloon Time

Quick work by EMS, emergency department staff and the cardiac catheterization lab led to a heart attack patient undergoing a life-saving angioplasty in record time. UConn Fire Lt. Wendell Cote and firefighter Brian Little, responded to the Farmington home of Ramesh Nar, 63, as did local first responders from the town of Farmington, and EMTs from American Medical Response.

Recognizing Nar might be suffering a heart attack, Little and Cote immediately performed an electrocardiogram and interpreted the reading as a ST-Elevation MI, signaling a possible blocked coronary artery. They quickly transmitted the data wirelessly from Nar's home via the Physio-control LifeNet ECG transmission system. A radio call with a STEMI alert to the John Dempsey Hospital emergency department soon followed.

Dr. Thomas Regan was already reviewing the transmitted ECG when the medics called with their report on the patient's condition. He agreed the patient was suffering a heart attack and immediately activated the cardiac cath team.

Regan, who was the E.D. physician on duty, along with Dr. Michael Azrin, director of interventional cardiology in the Pat and Jim Calhoun Cardiology Center, and cardiac catheterization lab staff, met Nar at the door and took him right up to the cath lab on the ambulance stretcher.

Azrin performed a radial artery access angioplasty, clearing the blockage with a balloon and stenting the blocked vessel by way of a wrist incision. The elapsed time of 21 minutes between Nar's arrival at the hospital and Azrin's procedure is the Health Center's fastest "door-to-balloon" time on record, and among the fastest in the region.

The ideal door-to-balloon time is less than 90 minutes. Every minute saved during this crucial period helps preserve heart muscle, increasing the likelihood of survival and preservation of normal heart function.



UConn Fire Lt. Wendell Cote (left) and firefighter Brian Little, of the UCONN Fire Department
(Anthony Ruggiero/UConn Fire Department)

The Health Center has made great strides in providing safe rapid treatment for STEMI patients. We have had times of 23 and 24 minutes before.

Roughly 90 percent of cardiac catheterizations in the U.S. are done by way of a major leg artery. But interventional cardiologists at the UConn Health Center have expertise in – and regularly use – the radial artery access technique, which results in less bleeding and faster recovery time.

“This is a wonderful example that rapid revascularization can clearly be done with radial artery access,” Azrin says.

“I feel perfect,” Nar said, as he was preparing for discharge 48 hours after the procedure. “I'm ready to go home, ready to work.”

Credit also goes to Farmington Fire responders Rich Palmer, Chris Scott, Irma Butler and Matt Collins, and the transport crew from American Medical Response, Kenneth Thorpe and Krystyna Letizio. Thanks to EMS, the 911-balloon time on this call was an astonishing 42 minutes.

— (modified from Chris DeFrancesco in *UConn Today*)

10 STEMI Care Tips

1. Immediate 12-Lead for all possible cardiac patients.
2. STEMI alert rapid notification to hospital. Always ask for medical control. If, you cannot transmit, describe 12-lead and patient condition.
3. Don't wait till after you have done all your IVs, given meds and begun transport to call the hospital. You are the dispatcher for the cath lab. Your early notification can help ensure that the lab and team are ready when you and your patient arrive at the hospital.
4. Use a heplock, then attach your IV tubing to the heplock. This will speed transfer of lines.
5. Undress the patient if possible and cover with blankets. Consider carrying a hospital johnny in your ambulance.
6. Have Defib pads ready. STEMI patients are at extreme risk of developing Ventricular tachycardia or fibrillation.
7. Use caution with nitro in inferior MIs. Never give Nitro to a patient with a right ventricle infarction.
8. High flow oxygen is not necessary if patient's is not short of breath, in shock or heart failure. Titrate O2 to >94%.
9. Don't forget ASA, if no contraindications.
10. Use lights and sirens, but drive safely.

12-Lead Indications

Any patient suspected of acute coronary syndrome, including any of the following (but not limited to):

1. Chest pain, pressure or discomfort
2. Radiating pain to neck or left arm. Also right arm, shoulder or back
3. Dyspnea
4. CHF
5. Cardiac Arrhythmias
6. Syncope/near syncope
7. Profound weakness
8. Epigastric discomfort
9. Hyperglycemia in diabetic patients
10. Sweating incongruent with environment
11. Nausea, vomiting
12. Previous cardiac history or other cardiac factors
13. Presence of anginal equivalents
14. Overdoses
15. Altered Mental Status

Return of Spontaneous Circulation

Simsbury Ambulance paramedic Arron LaPointe and EMTs Erin Komidar and Mark McPherson and American Medical Response paramedics Richard Bergen and Kevin Teeling, along with UCONN paramedic Wendell Cote restored circulation to their patients found in cardiac arrest in Simsbury and Avon, giving them a fighting chance to live.

UCONN Health Center EMS Web Site

For news, educational information, CME schedule and past copies of our newsletter *Partners*, check out our web site at:

uconnems.uhc.edu

More Cardiac Kudos

Paramedic Dave Laspino and EMT Ben Orioli of American Medical Response called in a STEMI Alert for a 54-year old male with chest pain radiating into his left arm. Thanks to the STEMI Alert heads up, the door-to-balloon time was just 34 minutes.

AMR paramedic Eric Brescia, along with Newington Ambulance crew Chris Hicks and Paul Kopusak, did a great job with care and rapid transport to a 52-year old with acute chest pain, who developed ST elevation shortly after arrival in the JDH ED.

UCONN paramedic Neil Prendergast, AMR paramedic John Palmieri and EMT John St. George did a nice job with a 48-year-old with chest pain who also later developed a STEMI in the ED.

UCONN Paramedics Mike Alger and Tony Ruggerio called in a successful STEMI alert for a 56-year old Unionville man with a burning sensation in his chest.



Wendy Baehr and Michael Johnson from AMR refused to take no for an answer from a 78-year old Avon woman having an "anxiety attack," who did not want to go to the hospital. The patient turned out to be having an ST-Elevation MI.

All five patients had successful emergency cardiac catheters performed and were discharged within days. Great work all!

2012 CME SCHEDULE

January 5, 2012 (Thursday)
February 15, 2012 (Wednesday)
March 21, 2012 (Wednesday)
April Skills TBA
May 16, 2012 (Wednesday)
June 20, 2012 (Wednesday)
July 18, 2012 (Wednesday)
August—NO CME
September 19, 2012 (Wednesday)
October Skills TBA

Our monthly CMEs are held in Keller Auditorium at 9:00 A.M. Enter main door, take escalator down one floor. CMEs include general lectures, case reviews and journal article review. Selected additional topics may be added. 3 CME hours are awarded. 1 additional Hour CME will be given for those completing open book quiz on journal articles. Daytime parking in main lot at top of hill is now limited to visitors and patients. If you are unable to find parking, please park in lower lots and take shuttle bus. Thanks.

All EMS Responders are Welcome!

CONTACT US:

Any questions or suggestions about EMS? Looking for patient follow-up?



Contact EMS Coordinator Peter Canning at canning@uhc.edu or call (860) 679-3485.