Evidence-Based STEmI Care Continues to Make Gains

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Treatment options for ST-elevation myocardial infarction (STEMI) significantly expanded over the past two decades. Studies showing benefit of aspirin, beta-blockers, ACE-inhibitors, statin therapy, and glycoprotein IIb/IIIa inhibitors. The database included 61,237 patients from 75 hospitals in the United States such as the ACTION Registry as a tool for measuring practice compliance with evidence-based therapies and new guidelines. The ACTION Registry also tries to quantify quality of care.

In-hospital mortality rate was 5.7% for Vanderbilt patients who received primary percutaneous coronary intervention (pPCI). Door-to-balloon (D2B) times was <90 minutes. The median D2B time for patients transferred from outlying communities was 119 minutes.

This article demonstrates the success of evidence-based practice on a consistent basis. Medicare for patients with acute coronary syndromes without ST-segment elevation is delivered. From July 2009 – June 2010, the Vanderbilt STEmI Network was pleased to report our door-to-balloon (D2B) results for patients presenting to the Vanderbilt Emergency Department and the door-to-door to balloon time (D2B) results for patients who were transferred from referring ED.

This bar graph reflects the median D2B times for 2010 for both zone 1 and zone 2 referring facilities that participate in the Vanderbilt STEmI Network. (Continued from page 5)
• LifeFlight’s medical crew receives this important choice:
  • Ideally, the patient should be treated in an intensive care unit and
    transferred. The group of hospitals and emergency care providers
    includes EMTs, paramedics, nurses and physicians.
  • DURING the transport, the medical team has full access to the patient to
    perform monitoring and intubation procedures.
  • Flying at a top speed of 165 mph, LifeFlight’s helicopters are state-of-
    the-art instruments that can safely transport patients within a system,
    such as the Vanderbilt LifeFlight network.
  • With its extensive experience and knowledge, LifeFlight can deliver the ST EMI
    patient care in minutes, saving precious minutes, and often a matter of life and
    death.
  • During the mission, the medical team combines forces with Vanderbilt to
    ensure the patient receives the best medical care available.
  • When providers call patients, there are other factors to consider, as well.
    When patients receive care outside the hospital setting, there is an increased risk
    for complications.

The Vanderbilt LifeFlight Emergency Conference will be held Aug. 16-17 in Nashville. This conference is designed for emergency department nurses, emergency physicians, and other health care providers. Topics will be presented by a battery of physicians, nurses and experts from various specialties.

Contact Lari Rees at (615) 322-7547 or carol.e.reeves@vanderbilt.edu for more information or to log on to www.VUMCFLIGHT.com.

By Jeanne Yeatman R.N., EMT, Program Director, Vanderbilt LifeFlight

Why Choose LifeFlight?

By Joseph Frank, M.D., F.A.C.C.

Acute Pericarditis vs STEMI: A Diagnostic Dilemma

Gold Star Recognition

The Vanderbilt LifeFlight Emergency Department with a call-to-paramedics at 7:00 a.m. and 12 noon as described in tightness and “like something is moving on my chest”. Direct coronary artery to come to

A 20-year-old male presents to Vanderbilt’s Emergency Department with a short pain to the back, neck, and arm that is described as "tightness and "like something is moving on my chest". Direct coronary artery to come to

General: Awake, alert, in no acute distress
  • HEENT: negative, no local tenderness
  • Respiratory: even, unlabored, clear to auscultation bilaterally
  • Cardiovascular: regular rhythm, no murmurs

Diagnostic Tests:
  ECG
  STAT Labs: Troponin 5.5

What’s your diagnosis?

Review this ECG and then visit our website VanderbiltSTEMI.com and click on STEM I newsletter to read the author’s diagnosis and to view the coronary anatomy video of this case.

Acute pericarditis accounts for approximately 3% of patients who present to emergency rooms for chest pain and is called an “acute pericarditis”. STEMI patients often present with chest pain as well. In the United States, STEMI patients are more common and account for about 30% of patients who present with chest pain to the emergency room.

What is STEMI and how is it diagnosed?

STEMI is a term used to describe a condition where a ST elevation is observed on an ECG. STEMI is often associated with a myocardial infarction (MI), or heart attack. STEMI is diagnosed by looking for a ST elevation on an ECG that is at least 0.1 mV in amplitude and lasts for at least 0.08 seconds in at least two contiguous leads.

What is the difference between STEMI and acute pericarditis?

STEMI is characterized by a myocardial infarction, whereas acute pericarditis is characterized by an inflammation of the pericardium. STEMI is often associated with chest pain that radiates to the arms, shoulders, and back. Acute pericarditis, on the other hand, may produce symptoms such as chest pain, fever, and malaise.

How is acute pericarditis treated?

Acute pericarditis is usually treated with a combination of medications to relieve pain and inflammation. These medications may include non-steroidal anti-inflammatory drugs (NSAIDs) and corticosteroids. In some cases, hospitalization may be necessary to monitor the patient’s progress.

Acute pericarditis is a serious condition that requires prompt medical attention. If you have symptoms of acute pericarditis, it is important to seek medical attention immediately. Treatment options include medications, hospitalization, and in some cases, surgery.

In summary, acute pericarditis accounts for about 1% of patients who present to emergency rooms for chest pain in the United States. STEMI is a more common condition that accounts for about 30% of patients who present with chest pain to the emergency room.

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