AMI 'D2B' – Rapid Review and Improvement

The Problem

The early use of primary angioplasty in patients with acute myocardial infarction who present with ST-segment elevation or LBBB results in a significant reduction in mortality and morbidity. The earlier primary coronary intervention is provided, the more effective it is (Brodie, 1998 and DeLuca, 2004). National guidelines recommend the prompt initiation of PCI in patients presenting with ST-elevation myocardial infarction (Antman, 2004). Initiation of intervention is dependent on clinical staff communication between the Emergency Department and the Cardiac Cath Lab. The AMI D2B measure is used to assess care processes, decision making and team-based communication related to this important intervention.

Aim/Goal

Increase the use of evidence-based strategies to improve an interdepartmental alliance and coordination of care between the ED and Cath Lab related to STEMI D2B times aiming to ensure ≥75% D2B time ≤ 90 minutes.*(ACC D2B Alliance)*.
Improve collaboration and communication between departments to ensure:

- Prompt data feedback – real time/close to real time review of outliers to identify process failures and need for change
- Protocols/Expected Time Frames for Assessment are known
- One Call Activation of Cath Lab;
- Leadership/Senior management commitment

The Team

- Cardiac Cath Lab Physicians and Nursing
- Emergency Medicine Physicians & Nursing
- Health Care Quality Process Improvement–Director /Data Abstractors

The Interventions

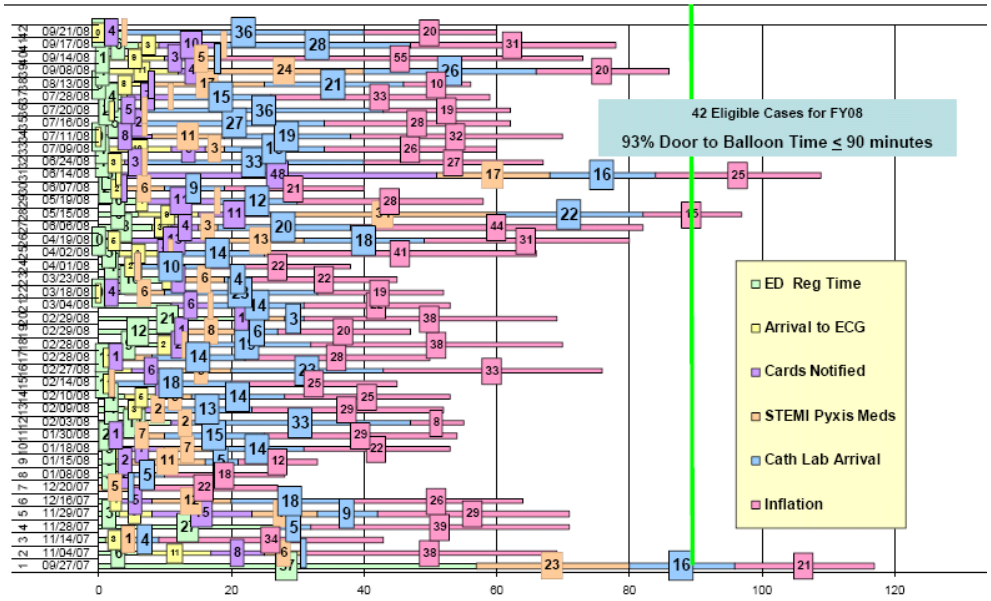
- Real time notification via ED Omnicell to D2B Team based on pull of STEMI Meds.
- Chronologic review and documentation provided to ED/Cath Lab Clinicians within 24-48 hours of event by HCQ, allowing timely feedback to involved clinical staff.
- Monthly Team Meeting review of process segments and outliers. Focus on process/system analysis 'to root'.

Progress to Date

Of the 42 eligible cases for **FY08, 93% had Door to Balloon time ≤ 90 minutes**
Noted process improvements for FY08 include:

- Improving ED Registration time
- More rapid/direct activation of Cath Lab
- Improved Cath Lab arrival from ED

FY08 CMS STEMI D2B Case Reviews



Lessons Learned/Next Steps

- A multipdiciplinary team approach enhances process improvements
- Close monitoring of 6 critical elements of the STEMI D2B process allows for improved real time problems solving.
- **What's next?** Create an inpatient STEMI protocol to insure that same standards are achieved for inpatients presenting with ST Elevation Myocardial Infarction (Pilot process implemented 2/09)

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