Barnes-Jewish Hospital at Washington University Medical Center - located in St. Louis, MO - focused on taking a strong team-based approach, specifically physician collaboration, and providing prompt data feedback to help decrease their door-to-balloon times.

Introduction to the Problem

ACC/AHA guidelines list the following goals for Acute MI reperfusion candidates:

Time-to-arrival to thrombolytic as 30 minutes or less

Time-to-arrival to balloon inflation as 90 minutes or less.

BJH/BJC established targets to provide reperfusion therapy within the established timeframes:

85% of thrombolytics

88% of primary percutaneous coronary interventions (PCI).

Pre-process improvement % in time for BJH:

0% of thrombolytics

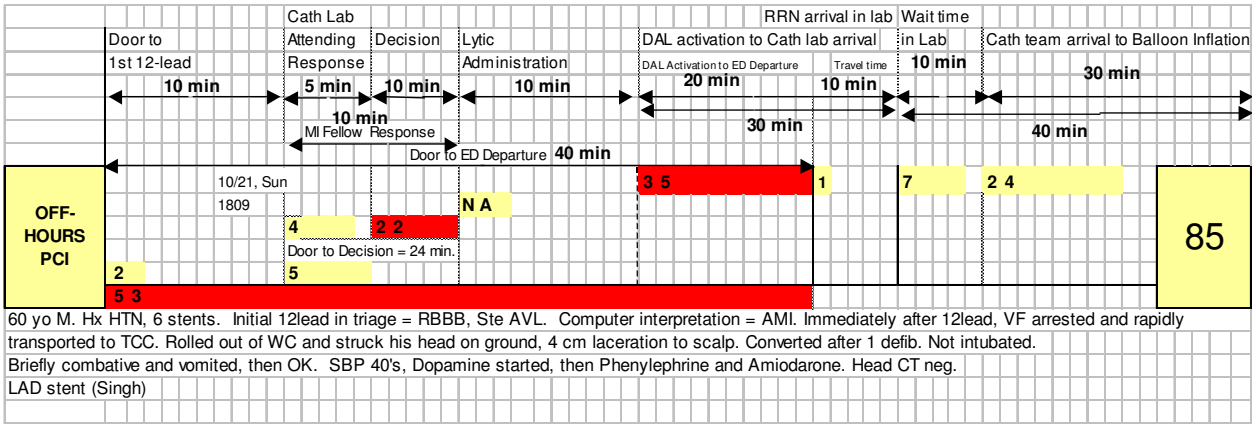
52% of PCI's

Acute MI Reperfusion team sought to overcome a great deal of historical precedence within a large, academic medical system to reach the goal of timely reperfusion. Sustainability of the an improved process would heavily depend on physician collaboration.

The team at Barnes-Jewish Hospital felt that the sustainability of an improved process depended on physician collaboration and decided to focus on three things. First, they provided immediate feedback to the physicians so that they could evaluate their own effectiveness. This not only increased sensitivity to time goals but also fostered a somewhat healthy competition among the physicians to achieve the quickest D2B time. Next, they ensured open communication between the cardiology and emergency medicine departments. Both departments felt this step substantively changed their approach from a 'silo mentality' to one of team collaboration. Finally, the hospital asked that all physicians focus on the timing of their medical decisions**.**

Below is an example of a timeline that is used to help provide the physicians with immediate feedback.

EXAMPLE OF TIMELINE USED TO PROVIDE IMMEDIATE FEEDBACK TO PHYSICIANS



Under their system, the sole responsibility of ordering the administration of thrombolytics or activating the team for an emergency cardiac catheterization falls to the ED attending physician. The interventionalist on call is paged and prompted to call the ED attending to further discuss the case. This allows for clear and direct physician-to-physician communication between the two without delaying the process. The ED physician can cancel the activation if at any time further patient data shows a contraindication for a cardiac catheterization.

Time to Decision

Third-party case reviews by Emergency Medicine and Cardiology were performed on all ED STEMI cases to determine appropriateness of treatment. Opinions regarding the pursuit of thrombolytics versus emergency cath versus no initial reperfusion therapy was solicited.

Process gave both departments insight into each other's decision making process.

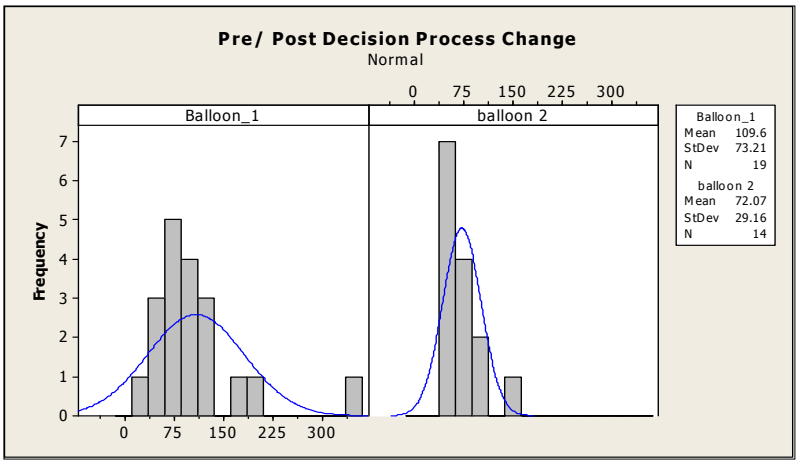
Established quarterly ED attending physician and interventionalist meetings to facilitate discussion of complex cases and remain informed and engaged in the process.

An extensive communication plan to all ED physician and staff, cardiologists and CPC staff implemented by team members and leadership.

ED attending only needs to make one phone call to activate the CPC team by calling the ED communication center. Communication center notifies the Doctor's Access Line (DAL) that has an established process in place to activate the CPC team and provide documentation of callbacks. Upon interventionalist's callback, the DAL would transfer that call to the ED for direct physician-to-physician communication

Following this new process of focusing on physician collaboration and providing prompt data feedback, helped the team at Barnes-Jewish Hospital to decrease their average door-to-balloon time from 109.6 minutes to 72.1 minutes.

Histogram comparing Door to Balloon inflation times pre and post decision change.



Time Interval Median Minutes	Pre: 2005	Post: 2007 Jan to July	Goal
Arrival-to-Thrombolytic (Door to Drug)	46 minutes 0% in time	22 minutes 100% in time	30 minutes or less 85% in time
Arrival-to-Balloon Inflation (Door to Dilatation)	161 minutes 52% in time	68 minutes 90% in time	90 minutes or less 88% in time
Physician Case Review Agreement	50% of cases	80% of cases	80% of cases

Thank you to Nelda Martin, APRN, BC, CCNS and to the team at Barnes-Jewish Hospital for sharing their success story and providing great data. For more information on how to successfully lower door-to-balloon time, please visit www.d2balliance.org.