Improving the Treatment of STEMI

Scope of the Problem: STEMI remains an all too common and deadly event. Early recognition and early reperfusion are fundamental to effective treatment. Primary PCI is preferred if it can be delivered in a timely fashion. Thrombolysis is a good alternative, especially if combined with an option for early mechanical revascularization.

Goal: To optimize the door to balloon time for Primary PCI. To create a local system of care that optimizes the choice of Primary PCI versus thrombolysis and provides the option for early mechanical revascularization. To stay current with the use of adjunctive therapy as new data from trials is made available.

Strategies:
1. Implement the strategies shown to reduce door to balloon times including ER activation of the catheterization laboratory, one call to active the catheterization laboratory, a system to insure the catheterization laboratory is ready to accept a patient within 20-30 minutes, a system to provide prompt feedback of the entire process of care, a team-based approach to improving the quality of care, commitment from senior leadership to this quality improvement effort.
2. Train EMS to obtain and to interpret or fax pre-hospital EKGs and developing rules for when a local hospital should be bypassed such that Primary PCI can be provided in a timely manner.
3. Benchmarking through site-specific reports of local efforts to improve door-to-balloon times, train EMS, and develop algorithms with referring hospitals to optimize treatment decisions.
4. Measure and report on door to balloon times.
5. Present and discuss relevant trial data.

Activities:
1. MMC has presented its efforts at minimizing door to balloon time.
2. CMC has presented its efforts at working with EMS to obtain pre-hospital EKGs.
3. The coding of the treatment of STEMI has been examined as has the completeness of data on door to balloon times. The latter data is often collected and kept in institution-specific Primary PCI databases.
4. Sites have been surveyed to determine whether they have implemented the 7 strategies advocated by the D2B Alliance.

Progress:
1. Errors in the coding of STEMI have been corrected.
2. Institutions have been contacted and are providing 2007-2008 door to balloon times.
3. The results of the survey will be presented and discussed at the 10/3/2008 meeting.
4. Planning is underway to make the focus of the 2/6/2009 meeting improving the treatment of STEMI with formal presentations of ongoing efforts by each site and focused discussions on the care of patients not in the immediate vicinity of the PCI site and adjunctive therapy.