Taking Action on Door-to-Balloon

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Background: The Heart Hospital Baylor Plano participates in multiple registries that report door-to-balloon (D2B) metrics for our ST-elevation myocardial infarction (STEMI) population. With definition variances across registries, disparate outcomes were reported across departments, leading to dissimilar processes for measuring improvement. This project sought to reconcile processes to achieve efficiency.

Methods:

Multidisciplinary team analyzed inclusion/exclusion criteria for Centers for Medicare & Medicaid Services (CMS) Acute Myocardial Infarction Core Measures Set, ACTION Registry®-GWTG™, and CathPCI Registry® in order to identify standard for team data collection and reporting. ACTION Registry-GWTG selected based upon widest inclusion of STEMI patients identified in our ED with immediate referral for invasive angiography.

Between 2012Q3 and 2013Q2, The Heart Hospital Baylor Plano sought to improve ACTION Registry-GWTG Metric 16, Median Time in Minutes to Primary PCI for STEMI Patients, by 10% through standardization of processes for patient care, data collection and outcomes reporting.

STEMI Protocol designed and implemented following house-wide education campaign. Team members designated to review cases within 24 hours and ensure shared access data collection tool updated. Processes implemented to communicate outcomes to internal and external team members.

Results: Between 2012Q3 to 2013Q2, ACTION Registry-GWTG Outcomes Reports revealed median D2B time decreased from 60 minutes to 53 minutes, an 11.7% improvement, surpassing goal of 10%.
D2B times consistently better than 50\textsuperscript{th} percentile ACTION Registry-GWTG benchmark with steady advancement towards 90\textsuperscript{th} percentile ACTION Registry-GWTG benchmark.

**Conclusion:** Varying definitions for similar metrics within a healthcare facility can lead to numerous methods for data collection and result in various data end points. Multidisciplinary collaboration to ensure understanding of data sets and defined definitions ultimately leads to concise data and enhances data reliability and integrity. The Heart Hospital Baylor Plano’s collaboration efforts resulted in timelier perfusion of heart muscle with decreased D2B times.

**Caveat:** Daily staffing resources necessary to ensure concurrent data collection and reporting.

**Next steps:** To further advance toward 90\textsuperscript{th} percentile, additional revisions to STEMI process required. Thus, “Code STEMI” process implemented in 2013Q4.