Program Evaluation: Assessing the Current STEMI Process from ED to Cath Lab

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Abstract

**Problem/Background:** In the past year at a mid-sized hospital in Eastern Washington, the time to respond to a cardiac emergency requiring cardiac catheterization has increased by an average of five minutes. In a patient suffering from an acute coronary event such as an ST-elevated myocardial infarction (STEMI), time is tissue. Door-to-balloon time is a metric addressed by every chest pain center that offers emergent percutaneous interventions (PCI). The problem is determining the reason for the delay and how to improve or minimize further delay. The process of initiating an ECG, having a physician interpret it, and activating the cath lab response team are all steps that need to be evaluated to identify where the extra five minutes are coming from.

**Methods:** Lean Six Sigma, the CDC Logic Model, and the CDC Program Evaluation model guided this evaluation.

**Intervention:** Using quantitative, qualitative, and observational methods the evaluation assessed the current cardiac team activation process. Staff, providers, and patients were queried about the existing program, identified the barriers, and made recommendations for improvement.

**Results:** Answers from the survey questions demonstrated uniformity among physicians and staff, with most believing that the organization is meeting the goal for cardiac patient safety. Areas of concern were difficulty getting immediate access to EKG readings, false activations, and unclear roles in a cardiac team activation. Recommendations made to the organization as a result of this evaluation resulted in the organization purchasing a device to upload EKGs into the electronic health record faster, and staff roles within the cardiac team activation to be made more explicit.
**Conclusion:** This program evaluation determined changes needed to prevent the organization’s door-to-balloon time from increasing again.