Acute Myocardial Infarction Process Improvement
Mount Carmel
2001 Acclaim Award Recipient

In 1998, Mount Carmel decided to select Acute Myocardial Infarcation (AMI) as a quality improvement initiative in order to decrease mortality and establish a uniform standard of care. A team consisting of a cardiologists, project managers, data analysts, outcomes experts, and patient care representatives was formed to implement the AMI project. Initial chart review identified several areas to address including a lack of standardized treatment, misdiagnoses, and inaccurate coding. In order to reduce variation in care, all three acute care facilities worked together, using CQI techniques, to develop a protocol for diagnosing and treating AMI that included a uniform set of standing orders for tests and referrals.

After the protocol was established, the team developed a one-page scannable data collection tool that features the American College of Cardiology (ACC) criteria for diagnosing AMI, key comorbidities, and gold standard treatment options. The form is initiated upon patient admission to the ER and serves several functions: miniature carepath, physician checklist of patient care, concurrent data collection, ongoing feedback, valid clinical data from physician and staff which can be connected to other data within the system. The program has resulted in a 21% decrease in AMI mortality and an increase in the quality of care provided.

Goal

Decrease in-hospital mortality for Acute MI patients and standardize the process of care across the health system using evidence based medicine

Intervention

Acute MI Data Collection Form, Standardized CCU orders, and Weight Based Heparin orders system wide, automatic referrals to appropriate departments for patient risk management.

Highlights

- Formed a System Care Management department, consisting of a full time senior physician leader, part-time physician leaders for each of the three acute care facilities, to establish and meet clinical outcomes goals. The physician leaders are part of the organization's Senior Leadership team and report directly to the CEO.
- Formed an Outcomes Management Resource department to provide project management, data retrieval, and statistical analysis.
- All physicians, System Care Management staff, the CEO, and other administrative leaders participated in a week long formal course in team facilitation, quality process improvement methods and statistical process control. The program is offered on an on-going basis to employees.
- Physician facilitators for the quality projects must be approved by the medical staff and committed to 10 hours per week.
- The project manager, physician facilitator, database manager, and data analyst meet weekly to analyze the data and discuss potential new areas of analysis.
- Data is shared at bi-monthly cardiology meeting
- Report cards displaying individual physician performance related to use of Aspirin and Beta Blockers for eligible patients were distributed to physicians and departments.

Results

- 29% reduction in in-hospital mortality from baseline (p-value:.06)

- 17% increase in aspirin use within 24 hours (p-value: .001)
- 30% increase in Beta Blocker use (p-value: .001)
- 32% increase in Ace Inhibitor use (p-value: .004)
- 103% increase in lipids drawn (p-value: .001)
- 51% increase in lipids treated (p-value: .001)

Mount Carmel, located in the Central Ohio region, is an integrated delivery system that includes three hospitals and five outpatient health centers; a community outreach program for the poor and under-served; a college of nursing; and a Medicare HMO. Mount Carmel has almost 7,000 employees and a medical staff of more than 1,500 physicians. As a mission-driven organization, Mount Carmel provided more than $52 million in total uncompensated community benefits in the past year.