Validating Hospital Programs: Chest Pain Coordinator Return on Investment

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Abington Memorial Hospital

- Flagship hospital in the system; Non Profit, community teaching hospital with 667 beds
- Referral Center for network hospital (125 beds)
- 1,100 physicians (most private practices) and 5,700 employees
- Serve residents of Bucks, Montgomery and Philadelphia counties
- Residency programs in family medicine, internal medicine, obstetrics and gynecology, surgery and dentistry and fellowship in Geriatric Medicine
- Primary clinical teaching campus for Drexel University College of Medicine
- Special recognition as KAPE Excellence Award, Magnet Designation; 5 Joint Commission disease specific certifications and Blue Distinction + for Cardiac Care

Emergency Trauma Center at AMH

Level II Trauma Center with Third busiest ED in Pennsylvania

Rooms
- 63 Acute Care Rooms
- 16 minor acute rooms
- Fast track
- 2 trauma resuscitation bays

Staff
- 25 board certified Emergency Medicine Physicians
- 23 physician assistants
- 145 RNs
- 61 clinical associates
- 8 paramedics
- 70 administrative associates
- 2 log technicians

Volumes
- ETC Census
  - FY 13 = 103,642
  - FY14 = 98,951
- Ambulance
  - FY 13 = 16,637
  - FY14 = 16,987
Aultman Hospital Profile

- Located in Stark Co. Canton, OH
- Stark County’s largest hospital and employer
  - over 5,000 employees throughout multiple campuses
  - over 800 licensed beds
- 85,000+ annual ED visits
- Teaching facility for NEOMED

Chest Pain Center Profile

- 24/7 six bed observation unit staffed with CCU RN’s
- 56 bed CCU
- Cardiac Cath Lab
  - 3000 Caths & 1500 PCI’s annually
  - 200+ Primary PCI’s
- New Cardiac Fellowship
- 7 STEMI referral hospitals from 5 county area
Objectives

• Showcase fiscal rationalization for a Chest Pain program with a dedicated coordinator position.

Objectives

• Understand rationale for focusing on Chest Pain Processes
• Choosing to Seek Chest Pain Accreditation
• Understanding rationale to hire a dedicated coordinator Position
• Measuring success factors
Evolving Focus of High Risk ACS Patients

- Public reporting focused on STEMI patients and the “Door to Balloon” (D2B) times less than 90 minutes.
  - Teams were created to improve these processes
    - Integration with ETC, EMS, Cath, Nursing and process improvement
  - Monthly meetings
  - Registry reporting
  - Organizational guidelines were beginning to report moving outcome potentials for earliest onset of ischemic symptoms to balloon and added the measure of first medical contact to balloon.
- AMI readmission rates became publically reported
  - AMI teams were developed to address the NSTEMI and STEMI care pathways.

Involvement of AHA’s Mission: Lifeline

- Mission: Lifeline further addressed the STEMI population
  - Further developing first medical contact to balloon in less than 90 minutes
  - Transmission of EKGs to hospitals by EMS
  - Education of paramedics for EKG recognition
  - Medical Director involvement in the education and protocols for EMS
  - Bypass protocols were being discussed for statewide adoption
  - Utilized Action Registry to benchmarking tool
  - Community education efforts for ACS and early recognition

- Society for Chest Pain Centers, now known as, Society of Cardiovascular Patient Care
Growing Recognition of Society of Cardiovascular Patient Care

- Chest Pain Accredited facilities were gaining recognition locally, within the State and Nationally.
- Focus was on the continuum of care of the acute coronary syndrome patients.
- Organization began to look more broadly than the high risk population of STEMI and AMI.
- What does chest pain or ACS really encompass?

Distilling Sub-service Line Contributions

*All-Payer National Hospital Volumes, 2013*

**Percentage of Inpatient CV Volumes**
- Medical Cardiology: 64%
- Vascular Services: 14%
- Cardiac Cath: 11%
- Cardiac Surgery: 6%
- Cardiac EP: 5%

**Percentage of Outpatient CV Volumes**
- Medical Cardiology: 81%
- Vascular Services: 12%
- Cardiac Cath: 6%
- Cardiac EP: 2%

Source: Cardiovascular Roundtable research and analysis.
Why Chest Pain Center Accreditation

- Creates “synergy” by defining strategic priority and multidisciplinary team involvement
- Patient Outcomes – Pursuit of Excellence – “Halo effect”
  - Cardiac focus for public reporting (STEMI and everything else).
  - Know we do a good job but how do we demonstrate it
  - Accountability of current standards of are for the patients and the community
- Education for Patient and Community
- Review and Develop standardized, evidence-based, patient processes
- Financial
  - Avoidance of value-based purchasing penalties (readmissions, LOS, DIPs, observations).
- Relationships with EMS
- State wide designations of Chest Pain Centers like trauma were being proposed
- Competition (being accredited is a differentiator)

Benefits of a Multidisciplinary Team

- Acute Coronary Syndrome encompasses the largest disease state in most organizations
- Development and implementation of care processes maps would drive opportunities for improvement
- Need a Physician Champion and need a dedicated chest pain coordinator – because who will lead this multidisciplinary team and keep us on track?
- Develop integration of what was traditionally siloes of departments.
  - EMS & Dispatch
  - ED
  - Cath lab
  - Nursing
  - Transition teams
  - Laboratory
  - Case managers
  - Data coordinators
  - Administration
  - Regulatory
  - Cardiology
  - Center for Quality and Safety
  - Hospitalists
  - Internists
  - Utilization review
  - Data Coordinators
Chest Pain Coordinator

- Coordinates and oversees the structure of the chest pain team and the various work groups
- Expert required for the Society’s standards and gap analysis for the organization
- Community educator
- Review of metrics
- Nurse / Nurse practitioner desired based on skill set
  - Initially costly but can support care practices and education
  - Considered Paramedic

Chest Pain Committee Charter

- A committee charter is developed to keep the team focused:
  - Purpose
  - Goal
  - Metrics
  - Success Measures
  - Key Components
  - Milestones
  - Out of Scope
  - Resources
  - Milestones achieved
  - Issues and barriers
Purpose of Chest Pain Council

• The hospital is committed to the development and maintenance of a continuous quality improvement program dedicated to providing the highest standard of care for the Acute Coronary Syndrome (ACS) patient. The chest pain committee (CPC) is composed of the multidisciplinary group of healthcare professionals focused on the care delivered to the ACS patient across the continuum with the most recent ACC/AHA, Mission: Lifeline evidence based guidelines.

• The CPC provides oversight and serves as the reporting committee for ACS related work efforts including the PCI Improvement Team, AMI Improvement team and Lansdale hospital PCI referring facility.

Goals of Chest Pain Council

Ensure that Processes supporting evidence based to ensure best practices are evident throughout the facility and across the continuum of care of the ACS patient. Eight actions:

1. Achieve and maintain Chest Pain Certification from the Society of Cardiovascular Patient Care

2. Achieve American Heart Association Mission: Lifeline Certification

3. Develop standardized clinical care processes to facilitate appropriate recognition and risk stratification for patient presenting to hospitals with ACS using a systematic approach based on current evidence-based protocols
Goals of Chest Pain Council

4. Promote use of risk stratification tool for ACS patients to support decision making regarding safe discharge from ED, observation or admission.

5. Identify forums to bring together representatives from Cardiology, Emergency Medicine and EMS to improve communication and education to the Community.


7. Outcomes of data presented at PCI, AMI, CPC meeting as well as the Board Members

8. Ensure ongoing evaluation and process improvement of patient care as it relates to ACS

Metrics

• CPC metrics are established by certifying bodies
• Quarterly metrics from NCDR ACTION_GWTG registry for ACS patients
• FMC to Intervention < 90 minutes for 85% each quarter
• AMI core measures in top 10% each quarter
• Increase compliance of use of order sets by 10% annually from baseline.
Success Measures

- Meet ACTION National benchmarks each quarter
- AMI and PCI core measures in top 10% each quarter
- Door to ECG times with physician signing, timing, dating, & interp. Within 10 min. on patients presenting with chest pain
- Troponin turnaround times with goal of order to result <60 min.
- Increase ECGs transmitted in the field
- Increase cardiac rehab referrals
- Improve compliance to chest pain order sets from 0% to 50% by 6/30/15.

Key components of Success

- Framework for chest pain council
- Standardized assessment of patients presenting with chest pain; standardized order sets
- Review ACS cases, communication and education
- Oversight of metrics
Milestones

2. Development of flowcharts beginning with 911 call to the assessment of pts. In the ED and follow through to discharge.
3. Change in process from 8 hour troponin schedule to 4 hours.
5. Education of staff to protocols and updates on the ACS patient.
6. Development of community education on Early Heart Attack Care (EHAC) and ACS.

Out of Scope

Patients with sudden cardiac arrest (SCA) not related to ACS presentation (i.e. hypothermia patients, PES, Vtach, Vfib)
Resources

- Dedicated Chest Pain Coordinator
- Time of Team Members
- Yearly funding form Apex Innovation for ACS education
- Fees for ACTION Registry-GWTG and Data Coordinator and Mission Lifeline: registries
- Certification and fees

Issues and Barriers

- Commitment of the committee members for accountability and follow up
- Time constraints for committee members
- System barriers between ED and in-house procedures
- Placement and management of observation patients
- Metrics that are not being improved.
Review

• A focused ACS program is essential to hospital volume and revenue
• A coordinated, high priority approach is the only way to address barriers to success
• Metrics are critical in ensuring success
• Dedicated chest pain coordinator keeps the team focused and on track
  • Would not have been able to achieve without this individual