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The Rationale for a Chest Pain Center Approach

By Carol Wesley

The concept of the chest pain center (CPC) has grown since its inception in the 1990s. This concept is no longer just another marketing effort to draw patients into the emergency department, but rather a new way to organize and manage care for a large and growing patient population. A more modern CPC approach may start as a simple strategy: initially to incorporate clinical and operational considerations for efficiencies in the emergency department, and then further advanced into a multidisciplinary and comprehensive program. Corazon believes a patient-centered approach and a broad range of services within the cardiovascular service line (incorporating preventative services as well) is the optimal way to implement a top-performing chest pain center.

An evidenced-based program includes key elements such as a robust education plan for staff and patients, a strong leadership and governance structure, and a focus on clinical quality outcomes. The CPC program should not be solely confined to within the walls of the facility, but also include efforts to involve pre-hospital systems of care, such as emergency medical services (EMS), primary care, and even the community. With a multidimensional CPC program model, an organization can earn a local or regional reputation as THE place in the community for emergency cardiac care.

Why Implement a CPC Program?

Chest pain accounts for more than 7 million visits to the emergency department (ED) each year and is the second most common presenting symptom, with an estimated cost of $5 billion.1 A successful CPC program model will not only incorporate cost-effective and evidence-based approaches for treatments and initiatives to rapidly identify and risk stratify all types of chest pain, but will also have goals to decrease time-to-treatment of acute myocardial infarctions (AMI) and reduce unnecessary admissions.

Hospital beds and inpatient resources are expensive. Programs should evaluate low to moderate risk patients in a chest pain center setting, appropriately diagnosing and possibly treating them in that same setting, which will help to lessen avoidable admissions. By adopting clinical strategies into routine functions for diagnosing and treating all types of chest pain, evidenced-based protocols are integrated throughout the facility to ensure proper patient placement and consistent decision-making for care delivery.[2]

Clinical Reasons

Rapid diagnostic and treatment protocols for specific disease processes is not a new concept, existing for years in trauma centers.[3] Chest pain can be complicated to manage and requires development of evidenced-based protocols and strategies, along with the adoption of risk-stratification tools to determine if an inpatient stay is warranted.

Chest pain triage and risk stratification is a standard of care for chest pain patients, and the development of standardized protocols should address all levels of chest pain and cardiac ischemia as a collaboration between ED providers and cardiologists.

The use of an evidence-based risk stratification tool allows for more efficient identification of acute coronary syndrome (ACS) patients, with the overall result of an enhanced focus on care of acute cardiac patients and reductions in treatment delays. Research has shown that as evidenced-based standards and protocols are implemented, there is an improved compliance with professional guidelines that result in value-added improvements in outcomes.[1]

Corazon recommends that any CPC strategy first address the development of a system of care, which not only improves the patient experience, but also reduces time to detection and treatment. The CPC program can be linked with an early symptom awareness program for the community that can be integrated with pre-hospital systems as well.

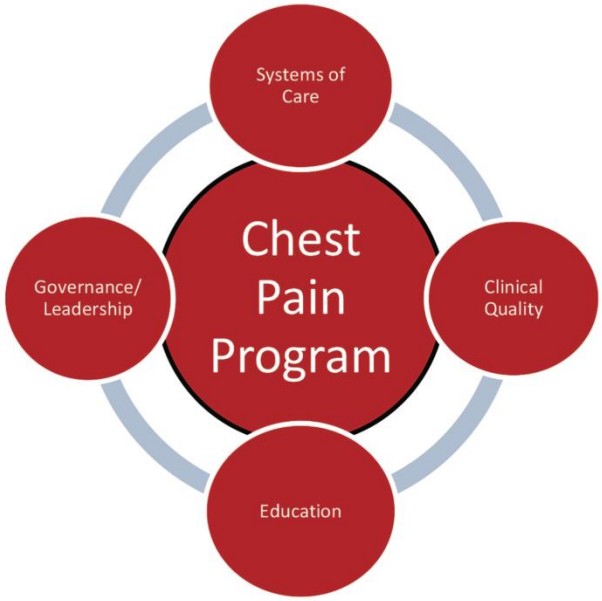
A strong focus on systems of care will safeguard optimum quality treatment and management of the ACS patient's pre-hospital phase as well. Enhanced care coordination among all providers including emergency responders, the hospital's ED, inpatient units, primary care, and cardiac rehabilitation will improve outcomes and become a satisfier for patients who can receive all phases of care in one setting.

Financial Reasons

Hospitals have seen increased financial constraints over the last several years, creating a need to increase the focus on cost reduction efforts. Shortening length of stay (LOS), reducing hospitalizations, and eliminating unnecessary treatments/procedures are chief among these efforts, and can all be addressed with a chest pain center. Evidenced-based chest pain protocols not only lead to more standardized care, but to clinical excellence and cost efficiency.

Another strategy to consider is expanding the CPC program to eventually include heart failure care, with the similar goal of decreasing re-admissions and LOS. The development of a CPC program can reduce expenses,

with decreased average LOS, and the cost per discharge will also lessen. Enhancing clinical care is attractive to patients, physicians, and payors alike; therefore, hospitals that dedicate resources to CPC development are optimally positioned for both clinical and financial gains.



Positioning for Success

A successful CPC program is a cooperative, multidisciplinary endeavor between several departments. Corazon typically recommends a physician champion and/or medical director as an essential component to help lead the program, provide clinical oversight, assist with program and protocol development, and monitor compliance and outcomes. Ideally, there should be co-ownership between cardiology and the ED, with hospital medicine representation involved as needed.

Program success is measured by several factors:

- **Protocols:** An evidenced-based protocol-driven approach to the ACS continuum has been proven effective in providing quick and accurate diagnosis, and rapid treatment. In fact, protocols are the foundation of a successful CPC program, as Corazon client experience has proven. Protocol-driven care improves time to treatment and patient outcomes, and also adds efficiency to patient flow.

- **Process Improvement:** As the program is developed and protocols are implemented, a process to monitor compliance with protocol use and clinical outcomes must be developed. Process improvement (PI) measures should be aimed at improving practice through evaluations of protocol effectiveness and adherence with current practices. PI processes provide an opportunity to facilitate multidisciplinary communication and break down barriers in order to improve the continuum of care for the ACS patient.

- **Accreditation:** Completing an accreditation survey will provide the organization with an unbiased validation of consistent, high-quality processes and evidence-based care. Earning CPC accreditation is a strategy by which an organization can assess its operations, identify inefficiencies and throughput issues, and then create a path forward to improvement. Accreditation shows organizational commitment to quality for patients, providers, and the community, along with the support of relationships with local EMS providers. Embarking on the accreditation process further indicates a focus on continual quality enhancement, and adherence to evidenced-based care and best-practice guidelines. Long-term benefits can be seen from ongoing performance improvement measures that promote effective teamwork and a more collaborative multidisciplinary patient care team.

Summary

A formalized CPC program will create processes that implement patient-centered care, clinical best practices, and evidence-based medicine for the condition of chest pain and beyond. A CPC program can provide many benefits for the facility including enhancing cardiac patient care, expedited triage and disposition, and decreased costs. This model ensures cohesive, multidisciplinary delivery of care for patients that could end up on a wide and varied care paths, depending on the underlying cause of the chest pain and eventual treatment course.

A CPC program not only benefits patients, but also the community, and on multiple levels. Patients tend to participate in their own treatment and subsequent preventative care at a higher commitment level. Including education events in the community often leads directly to better cardiac prevention. Through a CPC approach, the streamlining of cardiac care and the concentrated focus on the systems of care — pre-hospital through post discharge — benefits all involved.

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