The Evolving Role of Chest Pain Center Accreditation

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Chest Pain Center (CPC) accreditation has been integral to cardiovascular patient management since its inception in the 1990's. The discussion around CPC accreditation has evolved in recent years and now goes well beyond the walls of the hospital. This shift has allowed for more preventative care and management, beginning with primary care physicians. Healthcare's continued focus on preventative medicine, combined with the shift of an abundant number of procedures to an outpatient setting of care, has created an environment where CPCs can be a driving force for the productivity and profitability of a cardiovascular service line. Approximately one in five patients presenting with chest pain requires immediate intervention (with variations based on overall program volume, level of services at the facility, population density, and other factors). What happens with the remaining four patients is just as important as what happens with the one patient requiring some form of intervention.

Evidence-based CPC protocols support the appropriate triage, diagnosis, and treatment of patients requiring intervention. This, in turn, helps enable the appropriate utilization of resources (such as hospital beds) to be allocated to those who need them most, such as acute or more moderate-risk patients experiencing active cardiac symptoms. Low-risk chest pain patients, alternatively, can be evaluated via "best practice" treatment protocols. These patients can benefit from shared decision-making and the streamlining of their treatment options, thus creating greater patient satisfaction.

There are meaningful reasons to pursue an outside review of your CPC. The review assists with maintaining best practices, provides an outside resource to monitor changes in the industry, and evaluates performance on a regular basis to identify areas for improvement. All three initiatives are consistent with the regular actions of top-performing programs. Pursuing CPC accreditation also affords facilities the opportunity to reflect on and dig into their pre-hospital provider relationships, as well as assess community education needs, including raising awareness of cardiovascular risks and emphasizing the benefits of seeking immediate treatment. Reviewing front-door triage protocols, and immediate diagnosis and treatment plans for patients having a cardiac event, allows for more timely clinical diagnosis and treatment.

Like most initiatives, the development of a CPC should be integrated into an overall strategic plan for cardiovascular services. Key considerations include the treatment modalities available for cardiac patients and particular settings of care (ie, the availability of a relationship with an ambulatory surgical center [ASC]/urgent care center performing cardiac or vascular procedures). Other strategic plan-related factors include program-specific quality goals and opportunities, physician and staff resources, and equipment. Each initiative plays an important role in supporting the overall growth of the program and its ability to provide high-quality care to every patient. The requirements to achieve CPC accreditation change based on the type of care provided at a hospital.

Scaling a CPC Program

No or limited cath lab

If a cath lab is not available onsite, or if the facility can only perform diagnostic cases, the emphasis should be focused on patient triage and risk stratification. Door-in-to-door-out times are critical for patients being evaluated at a non-interventional center before transfer for treatment. Monitoring door-in-to-door-out times is less common in urban

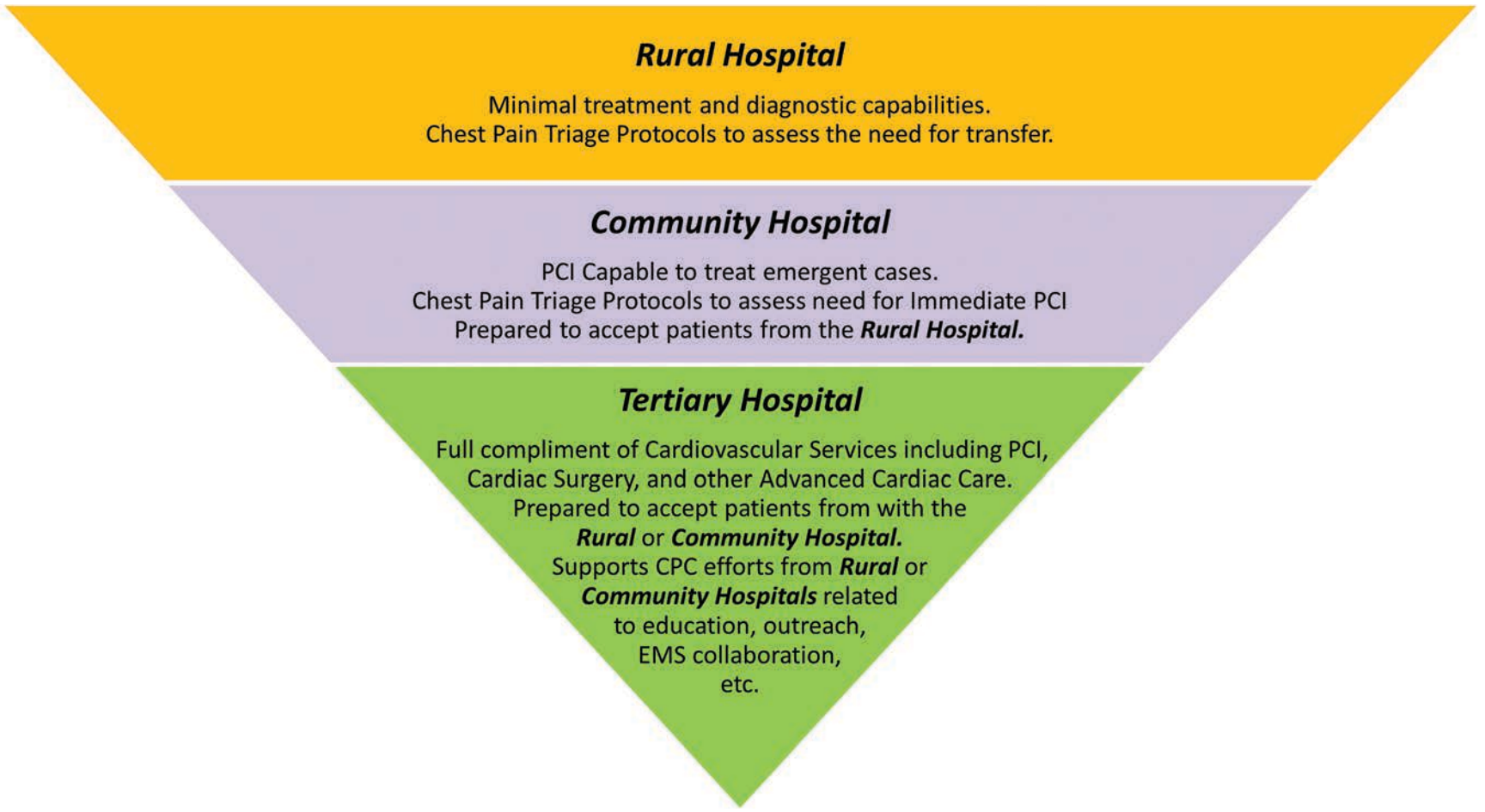

Figure 1. **The requirements to achieve CPC accreditation change based on the type of care provided at a hospital.**

areas where emergency medical services (EMS) can simply reroute to the nearest percutaneous coronary intervention (PCI) program, but this metric can still be actively monitored and have implications for inpatients who experience chest pain. Tools such as root cause analysis can be used to understand the cause(s) of specific timeframes when evaluating these patients to ensure treatment decisions are being made in a timely manner, allowing for optimal outcomes.

Partnering with an interventional center so there is a clear plan for transfer when needed is key to a center's success and affords better patient outcomes. More formal relationships with a tertiary center assist in supporting key decisions for the triage and management of the chest pain patient who may present at a more rural or community-based hospital and is dependent upon on their level of services offered (Figure 1).

It is also integral to ensure that there is adequate communication between the centers, so the triage hospital is made aware of patient outcomes after a transfer.

Establishing relationships with EMS providers and sponsoring education sessions so they can perform important diagnostic tests in the field encourages the reduction of transfer times. Furthermore, conducting education within the local community (such as informing people on when to contact EMS) further enables the usage of diagnostic tests by EMS. Of note, all these events can be co-planned with the facility receiving transfers.

Larger centers with cath lab(s)

At a larger, more tertiary care center with expanded treatment capabilities, the focus shifts to the internal management of patients. CPC accreditation still emphasizes the timely completion of critical steps, but with the goal of moving the patient to the right department within the hospital versus determining a need for transfer to another hospital. Patients can be cohorted based on their treatment needs, and a virtual or physical chest pain center can be established, based on what is available.

CPC accreditation can also be valuable for enhancing procedural programs. A PCI program trying to achieve less than 90-minute door-to-reperfusion (or balloon times) needs to have a very strong process in place for when patients arrive at the hospital. Accreditation provides access to a third-party expert that can provide advice and potential solutions. As an accrediting body, Corazon, Inc., has witnessed many programs raise their own internal benchmark for achieving door-to-reperfusion to <60 minutes, surpassing societal literature, which still follows the 90-minute timeframe. CPCs become adept at analyzing time metrics to identify where there is room for improvement. These programs also have the infrastructure in place to implement necessary changes once identified.

Based on the growth of cardiovascular services in the ambulatory surgical center (ASC), development of an ASC strategy should be a critical initiative for any cardiovascular program. With the variations in ASC regulations from state to state, guidance from an accrediting entity is also vital.

Expanding the Scope

CPCs are positioned for potential changes or at least are positioned to support changes that are already occurring in cardiovascular services. With an emphasis on triage and risk stratification, CPCs can function as a patient navigation resource based on severity and urgency.

Patients who are seen by a cardiologist in follow-up to low-risk CPC monitoring will have options for where to seek care. Depending on the level of services offered, and the state regulations in place, some of these patients may be referred to an ASC for intervention. A strong CPC can be a supporting factor for a hospital to build a relationship with both the referring cardiologists and the ASC. Based on the growth of cardiovascular services in the ASC, development of an ASC strategy should be a critical initiative for any cardiovascular program. With the variations in ASC regulations from state to state, guidance from an accrediting entity is also vital.

Since the peak of the COVID-19 pandemic, there has been an apparent rise in heart failure, causing many hospitals to expand their current capabilities. CPC accreditation can support the advancement of heart failure care, with both programs focused on decreasing readmissions and length of stay.

Patient education is another key component of CPC accreditation, and the focus on continuing education is critical, be it when a patient presents needing immediate cardiac care, or taking it a step further by offering wellness and community education. Efforts in raising community awareness and providing the necessary resources and tools to the patient and community can directly impact overall patient health and outcomes.

All these factors contribute to patient satisfaction, patient-centered care, the financial performance of the hospital, decreased costs, and strategic positioning for the future of cardiovascular care. While few programs have submitted data or published research on their specific changes pre- and post-CPC accreditation, those programs that have done so have shown remarkable results. One program even saw a decrease in mortality of 37%.[1] Others have seen general improvements for acute myocardial infarction patients with respect to major adverse cardiac events and mortality.[2] Despite limited data, the consensus is clear that CPC accreditation has resulted in consistent benefits for all parties involved.

Conclusion

CPC accreditation serves as a cornerstone of a high-quality cardiovascular program. In many regards, CPC accreditation is an opportunity to formalize work that has been completed in a happenstance manner, raising the bar for what was previously in place. There is a laundry list of reasons to consider establishing a CPC at your organization, all pointing toward improvements in patient care and wellbeing. The process of CPC accreditation ensures consistency of care, regular review of protocols that may have already been in place, updates as new clinical practices emerge, outside feedback, regular monitoring of outcomes (and associated action plans), and, most importantly, a renewed focus on patient care. ■

References

1. Douglas PS, Taylor A, Bild D, et al. Outcomes research in cardiovascular imaging: report of a workshop sponsored by the National Heart, Lung, and Blood Institute. *Circ Cardiovasc Imaging*. 2009 Jul;2(4): 339-348. doi: 10.1161/CIRCIMAGING.108.123999
2. Fan F, Li Y, Zhang Y, et al; CCC-ACS Investigators. Chest pain center accreditation is associated with improved in-hospital outcomes of acute myocardial infarction patients in China: findings from the CCC-ACS project. *J Am Heart Assoc*. 2019 Nov 5;8(21):e013384. doi: 10.1161/JAHA.119.013384.

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