

What's In and What's Out for 2017? Rightsizing Cardiovascular Service Offerings

By Ross Swanson

Healthcare in 2017 is certainly approaching with rapid change! How hospitals or health systems choose to position themselves can impact their futures, especially within core service lines like cardiovascular. With the heightened scrutiny related to appropriate and affordable care, plus the demands on healthcare providers to become more efficient with fewer resources, they must take steps to better position themselves for the effects of these changes. Providers must also keep in mind The Institute of Medicine definition for appropriate and affordable care - "Deliver the right care at the right time by the right provider in the right setting." Taking this into consideration, it is not necessary or even appropriate for every hospital to provide every cardiac service; but to find those services for which they excel and forge the formation of partnerships that will strengthen and foster community access to great care.

Defining Cardiovascular (CV) Levels of Service

Consolidation (or "re-distribution") of services is considered the most efficient and logical journey for most hospital systems in the United States to withstand continued challenges of lower reimbursement. As hospital systems evolve into a single more efficient whole – there should be more consideration as to the tier of cardiac services each hospital is best equipped to manage for patient care and outcomes; not all hospitals need to be a full service cardiac center to give its community safe and excellent care. Having the proper foresight to understand and recognize what level of care that can be delivered operationally and successfully could represent the performance capabilities for the institution.

Deciding what a facility or system can provide in relation to CV services is perhaps the most strategic decision to be made in terms of growing or perhaps sustaining the cardiac service line. Corazon uses a "tier-system" when describing which services a facility offers and the same system also has great applicability in discussions to determine which service(s) to offer. Often during these discussions, disruptive technologies or industry trends associated with each tier can reveal the opportunities or threats to better prioritize CV service offerings.

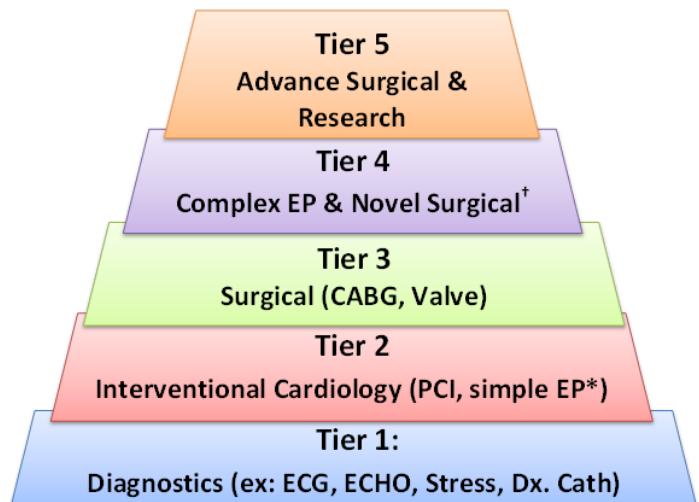


Figure 1. Tiers of Cardiac Care

*Simple Electrophysiology (EP) includes basic pacemaker implantation, perhaps cardiac EP mapping capability.

[†]Complex EP & Novel Surgical includes EP ablations, transcatheter aortic valve replacements (TAVR), MitraClip®, ventricular assist device (VAD) therapies, etc.

Corazon's Cardiovascular Service Offering Tiers (Figure 1):

Tier 1: Diagnostic Heart Services offers non-invasive imaging to evaluate the function of the heart and coronary artery health. These facilities often refer positive findings to Interventional Centers.

Tier 2: Interventional Cardiology Services offers both diagnostic cath and interventional coronary care.

Tier 3: Surgical offers Diagnostic and Interventional cardiac cath, as well as Cardiac Surgery (CABG, Valve, Vascular and Thoracic Surgery) options.

Tier 4: Electrophysiology plus Tier 3 services. This offers arrhythmia evaluation and treatment including mapping, ablations, and complex (Bi-V) pacer insertions. Often these programs offer services like TAVR, MitraClip®, or other novel approaches.

Tier 5: Offers all levels of cardiac service including advanced cardiac surgery and research-leading advances in cardiac care. These quaternary centers also provide high-end cardio-diagnostic like cardiac-MRI and 3-Dimensional Echocardiography, as well as molecular-based therapies and complex device implantation.

Beyond the tiers, the other complex decision is the transition of the traditional service line management structure which has been focused on the acute care episode regardless of which tier of services are being offered. The concept of managing care throughout the full continuum has been discussed at length for decades with often too little execution in actual care management redesign. However, there are new payment models (i.e., bundled payment methodologies) on the horizon; healthcare leaders MUST act to fully manage/monitor care from the pre-hospital phase through the rehab or convalescent phases of care. One would think that this task would be easier in CV services compared to other clinical service lines given the plethora of cardiac rehabilitation programs, 'franchised' CV wellness centers, and CV-based disease management clinics. Nonetheless, even in CV, these programs have existed in silos and far too often are not well-coordinated or integrated back into the CV service line.

Preparing for CV Service Line-Based Changes

The more recent Presidential election years have created a great sense of anxiety in the healthcare industry. And this latest election is no different in casting even greater insecurity across healthcare providers. More specifically, the controversy related to the Affordable Care Act introduction has persisted throughout the last four years and now the impending reforms with President-Elect Donald Trump also heighten fears. **One thing is for certain, paying for care based on value and minimizing the complexity of how healthcare services are paid should continue to drive forward.** These core principles were gaining momentum through other channels such as CMS long before any presidential platform addressed them.

But what does this mean specifically to the cardiovascular industry?

Clinical advances will continue to move to least invasive means possible regardless of CV subspecialty. The paradigm shift away from standard surgical approaches is driven by both patient expectations coupled with positive clinical results. Cardiovascular has been well-positioned to provide less invasive services given the 1) advancements in cardio-diagnostics, 2) advancements in catheter-based treatments with both the approach and the technology, and 3) research indicating the effectiveness of service offerings like percutaneous coronary intervention (PCI) with surgery off-site [discussed more under misconceptions later]. Whether providers are engaged in assessment and/or planning for the CV offerings, creating service platforms that allow flexibility for less invasive approaches is crucial for a successful future.

There are also noted incentives to increase the move from providing CV services on an inpatient basis to an outpatient model. Similar to the clinical advances above, there is a phenomenon that this outpatient shift is both payor and patient/consumer driven. In fact, the Recovery

Audit Contractor (RAC) program which looked at appropriate patient billings began with intense scrutiny on inpatient versus outpatient status indicators for those people that received angioplasty.

Our Corazon database indicates that PCI continues to shift more as an outpatient procedure; and, in fact, we have experience in some markets that indicates that the outpatient portion is equal to half of the total number of PCI cases. This trend is going to continue across all CV service types and so there must be ongoing preparation to ensure case efficiencies increase as patients are kept "in-house" for shorter periods of time. With 42% of Medicare patients entering post-acute care, finding avenues that will challenge the industry to work more lean with higher quality is of concern¹.

Another factor to consider when preparing for the near future is related to global payment methodologies. The Affordable Care Act has defined bundles as a continuum care approach for managing the patient journey. Cost, quality, and value is driving the CMS decision to look at bundle payments for both PCI and AMI. The episode payment model (EPM) for AMI has already been proposed and could likely see traction as early as July 1, 2017. It should be noted again that the movement toward bundled payment has been discussed long before the Affordable Care Act came into being as healthcare billing and payment remain fraught with unnecessary complexity when compared to other industries.

The industry must shift to a model in which payors can track a single episode of care (through the full continuum) with one payment method. Cardiovascular services may provide some interesting lessons compared to other services that have already been under a bundled-payment model like orthopedics and Joint Replacements, since a majority of CV cases are not elective and in fact, are often provided under urgent circumstances.

Finally, facilities will need to heed the tier of services offered when taking all of the aforementioned factors into account as the volume and complexity of care (which is directly tied to the tier system) will ultimately drive success or failure in the CV service line. In short, facilities cannot be the "Master of All" subspecialties within CV. Too many service offerings will dilute the expertise achieved through direct provider experience as volume of appropriate procedures in many markets is already being constrained. To underscore, in Becker's Hospital News, Cleveland Clinic CEO, Toby Cosgrove, gave a warning to all U.S. Hospitals that, "preventing the rate of hospital closures from rising will require hospitals to focus on improving efficiency and continuing to seek opportunities to consolidate." He also added that "consolidation would lend hospitals more purchasing power and reduce the

¹ Tien, W. (May 2016). An all-payer view of hospital discharge to post acute care, 2013. Healthcare Cost and Utilization Project (HCUP). Statistical Brief #205

duplication of services without raising costs.”² The power of consolidating, also known as redistribution in CV services, is becoming a more common practice as the complexity and even the profits associated with CV procedures becomes more uncertain.

Common Misperceptions When Considering CV Services Offerings – The Case of PCI & OHS

First, there continues to be much scrutiny related to PCI as one considers capabilities in the cath lab and access to emergent, life-saving treatment. In fact, the headlines over the last 6-7 years have been chalked with questions related to PCI appropriateness given the steady increase in elective PCI volumes coupled with the profitability associated with the procedure. The Corazon team is often confronted with several misconceptions related to PCI when it comes to appropriateness, volume / competency requirements, and financial gains even in light of large fixed overhead costs. However, the most common misperception that we still face is that PCI is unsafe when performed at institutions that do not have on-site open heart surgery backup.

The American College of Cardiology (ACC) has demonstrated through its ACC-NCDR® registry that PCI with off-site open heart surgery is safe and effective. Corazon's latest data indicates that up to 33% of all U.S. facilities performing PCI had no on site cardiac surgery and of those, 65% performed less than 200 procedures annually. Of all PCIs performed, 17.44% were STEMI cases. 94% of STEMI patients received immediate PCI within 90 minutes with a median time of 62 minutes. Median door-to-balloon (D2B) from the transferring facility to the receiving facility was 74 minutes, which is a dramatic decrease from the prior 107 minutes. In fact, the NCDR® report also reveals that less than 0.2% of all PCI cases require immediate open heart surgery emergent back-up. Of course the programs that perform PCI with surgery off-site must be developed very well to ensure that patient outcomes are comparable to or exceed those programs that do have surgery in-house. The mortality rate for any PCI facility must be under 1.0% or immediate root-cause analysis should be performed to determine the cause(s).

Certainly, the decision to provide PCI with surgery off-site must be balanced with any local or state regulations that may restrict this service as well as the support of the key CV providers. Furthermore, transitioning facilities towards the performance of PCI with surgery off-site is a strategic decision that must consider all of health system/network affiliations as well as the competitive landscape.

Second, another service with many misconceptions related to its position in anchoring the CV service line is Open Heart Surgery (OHS). Similar to PCI with surgery off-site, the Corazon team witnesses many beliefs that acceptable open heart surgery mortality rates may need to be

adjusted per facility based on volume. CV program administrators and open heart surgeons must underscore the importance of maintaining open heart surgery mortality below the 2.0% threshold for ANY facility offering the service. The availability of mortality data coupled with advanced surgical techniques has bolstered the need for programs to vigilantly monitor outcomes associated with OHS.

Finally, it should be noted that Corazon has direct experience with programs that do provide OHS with stellar clinical outcomes even though their cases may be well below 100 annually. This is due to the fact that these programs employ strict monitoring on a real-time basis to course correct any deficiencies that may be contributing to negative outcomes. Of course this degree of monitoring takes a large devotion of time and other facility resources.

It is surprising that given the number of resources to run an efficient program, the Corazon team also encounters the frequent belief that open heart surgery is contributing significant, positive contribution margins regardless of low case volumes. This myth related to open heart surgery guaranteed profitability could not be farther from the truth!

In fact, Corazon has performed many analyses to determine the “break-even” volume for programs with typical facility demographics related to fixed costs (staffing, equipment). The break-even point is defined as the number of cases that generate enough revenue to fully cover the expenses associated specifically with the OHS service. This may seem like a controversial point to many, but *in programs with typical fixed costs that perform less than 100 cases, it is very difficult if not almost impossible for the Open Heart Surgery (OHS) program alone to make any profit.*

We often find that many programs will review cost-accounting reports that do not have the ability to separate the OHS service revenues/expenses in true isolation. Therefore the ability to analyze costs and many other factors that typically include paying surgeons for call, anesthesia contract subsidies, or perfusion contract rates are not fully realized in these reports. When these other factors are not included in the expense lines in the cost reports, then the amount of contribution margin is artificially inflated as the expenses associated with OHS have not been fully accounted.

It should be noted though that Corazon has experienced a small number programs with relatively low OHS volume (<75 cases) per year that have remained profitable. This was achieved with the surgeons traveling from facility to facility within a given market and their team (intra-operative as well as mid-level providers) travel with them to assist with care delivery. In this situation, the fixed costs to the hospital are minimal as the expenses are being shared across the market compared to fixed costs with a “fully-loaded” program.

However, the safety factors associated with this potentially fragmented care delivery need to be carefully considered.

² T. Rosin. Becker's Hospital News, (November 22, 2016). Cleveland Clinic CEO's Dr. Toby Cosgrove's warning to all US Hospitals.

For example, all post-procedural OHS care that is performed within this “traveling” care team model will need to be extremely coordinated with the external and internal care staff to ensure that needs can be managed when the external team is not on-site. These programs demonstrate positive outcomes under a care model that has rigid protocols (i.e., care path management).

Regardless of what programs are deciding related to PCI and/or OHS, the patient must be placed first in all decisions related to how, where, and when these services are offered. Facilities that understand that there may never be a strong financial gain associated with any cardiac service must still ensure that access to care is being provided, along with positive outcomes. If the focus of any decisions related to distribution of services begins and ends with the patient in mind, then the healthcare community and the providers should be able to more readily support these frequently tough discussions.

Making CV Service-Based Changes – Finding What Fits Where

In reality, all of the recent discussions that the Corazon team has participated in related to where CV services are offered lend to the CV Hub-and-Spoke models that innovative health systems have been forming over the last two decades. These complex and sometimes unpopular re-distribution of CV services can be guided through a stringent analysis of the facility or health system’s current situation as well as capitalizing on any opportunities in a given market.

This analysis should include an in-depth review of any available market data, as well as the current physician manpower and clinical staff distribution (including their skill sets). The data from this analysis should then be presented in frank, open discussions with all key CV stakeholders so that collaborative decisions can be made on fact-based information rather than anecdotal or politically-influenced talking points. These discussions of the data findings should then be used to provide a ranking methodology for any CV service offering options so that key leaders have already ‘bought-in’ to the plan to redistribute CV offerings before any services are actually redirected.

Finding what “fits” can be a struggle whether it involves a new CV program implementation or downsizing an existing Open Heart Surgery program. It is not easy to make that change. Downsizing an Open Heart Surgery program to a PCI without Open Heart Surgery can make those feel as though the hospital is losing revenue and not doing a service to the community; however, that is not the correct picture. This action can re-vitalize the sustainability of the PCI program, put more attention to detail in PCI program offerings while supporting good financial gains and preserving a great service for the community. Corazon has worked with hospitals to move to a PCI program without OHS support. By sharing supportive data to the viability without on-site open heart surgery, Corazon has been able to assist hospitals with thriving in the changing market.

There are many hospitals with low open heart volumes (less than 50 per year) willing to explore the option of or actually closing their open heart programs and sustain a vigorous diagnostic catheterization and PCI program. Partnering with the right groups is the key to a smooth transition. There are some important partners that need to be solidified for the program: a local tertiary hospital, the EMS Transport Company, and a CV surgeon. Through these ongoing partnerships an alliance is established to maintain 24/7 coverage that ensure patients are seen quickly and efficiently with little interruption in care. Additionally, sustaining a strong relationship with interventional cardiology groups can influence PCI program volumes to remain consistent or rise.

How does a hospital switch gears to change a service? With Corazon, the process is about the hospitals and their patient’s success; we have developed a process to ensure a smooth shift to PCI without OHS on site. Consideration about a program shift goes beyond revisions of policy and procedure, transport of patient, and staffing; it is changing the “face” of the program. Transparency and gaining support from physicians and staff is imperative; familiarity with ACC/AHA PCI Consensus guidelines and any department of health regulatory language a must.

Concluding Remarks

The coming year will likely have some turbulent changes as the bar has been set very high for the ENTIRE healthcare community to ensure patient length-of-stay is reduced, greater accountability in preparing the patient to actively manage their wellness and disease states, and reduce re-admissions, all while forming partnerships to maintain the continuum of care. It behooves hospitals and health systems to begin the course of forming strong and lasting partnerships to optimize great patient outcomes and positive financial returns for all parties. In cardiovascular, best practice will guide the process with ongoing quality initiatives, and this can be found in the national and state registries that set benchmark and action steps for process improvement.

Corazon believes it is imperative that any partnership has well-defined goals and objectives and each takes accountability for their role to remain solvent in this new environment of care. The expectations are high for all partners in the continuum of care to be efficient, provide high quality of care, maintain high patient survey scores and be cost-conscious.



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