AMBULATORY SHIFT OF CARDIOVASCULAR PROCEDURES

What are considerations for cardiovascular procedures to move into the ambulatory setting? What factors will accelerate or slow this shift?

Overview

With the addition of cardiac diagnostics and interventions to CMS's ambulatory surgery center (ASC) reimbursement list in recent years, cardiovascular programs now have the opportunity to deliver CV procedures across multiple sites on the care continuum, such as an ASC or office-based lab (OBL). Over the last decade, many cardiovascular procedures have shifted to outpatient. However, this shift has primarily been a change of status rather than a shift in the actual site of care, with the procedures and services remaining in the hospital setting. As payer support, technological advances and care redesign enable care to be delivered in lower-acuity and lower-cost settings, the opportunity to shift procedures to the ambulatory setting is now top of mind. Procedures under consideration fall in multiple subservice lines such as electrophysiology (EP), interventional cardiology and vascular services.

This shift, however, is highly market dependent. A complex combination of forces, including federal and local regulations, workforce, patient population, and the current market landscape, must be assessed to understand if this shift aligns with and supports the broader goals of an organization's cardiovascular program.

Landscape: CV Procedure Projections

CV Procedures Often Performed in HOPD With Low Volumes in ASCs and Offices Currently

The aging population, along with increased comorbidity, continues to drive an increase in CV volumes. IP discharges are expected to remain flat over the next 10 years (+1%) with OP volumes projected to grow 17% in the next decade. As volumes for hospital-based OP procedures continue to grow, hospitals may struggle to manage the demand due to space constraints, presenting a need to explore alternative strategies. Table 1 lists select CV procedures that show low to moderate potential for moving a portion of low-acuity, low-risk cases out of the hospital setting into an ambulatory surgery center or office-based lab.

TABLE 1. SELECT CV PROCEDURES BY LOCATION, COMMERCIAL PERCENTAGE AND FORECAST

PROCEDURES	INPATIENT	HOPD	ASC	OFFICE	% COMMERCIAL	5-YEAR IP+OP FORECAST	AMBULATORY SHIFT POTENTIAL
Diagnostic Catheterization	22%	74%	0%	2%	36%	–19%	Low
Endovascular—Peripheral	10%	46%	1%	43%	22%	7%	Low

health care intelligence

TABLE 1. SELECT CV PROCEDURES BY LOCATION, COMMERCIAL PERCENTAGE AND FORECAST (Cont'd)

PROCEDURES	INPATIENT	HOPD	ASC	OFFICE	% COMMERCIAL	5-YEAR IP+OP FORECAST	AMBULATORY SHIFT POTENTIAL
Intracardiac Catheter Ablation	12%	87%	0%	0%	44%	18%	Low
Implantable Loop Recorders	3%	88%	7%	1%	33%	21%	Moderate
Pacemakers and Implantable Defibrillators	26%	70%	4%	0%	22%	7%	Low
Percutaneous Coronary Intervention	45%	53%	0%	1%	39%	–4%	Low

HOPD = hospital outpatient department. **Sources**: Impact of Change®, 2020; HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP) 2016. Agency for Healthcare Research and Quality, Rockville, MD; Proprietary Sg2 All-Payor Claims Data Set, 2018; The following 2018 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2020; Sg2 Analysis, 2020.

Interventional Cardiology: Diagnostic catheterizations (combined IP and OP volumes) are forecasted to decline over the next 5 years due to noninvasive imaging (such as CCTA and FFR-CT), along with better medical management and risk stratification. In 2019, CMS approved reimbursement in the ASC for diagnostic catheter procedures. However, at the national level, these procedures are mainly performed in the HOPD. Percutaneous coronary intervention (PCI) procedures are also largely performed in the HOPD, although nearly half of PCIs are IP due to acute myocardial infarctions and other increasingly complex patients who require a longer hospital stay. Select PCI codes were added to CMS's ASC reimbursement list in 2020. Both procedures require dedicated space (a cath lab) along with specially trained staff, which are key factors limiting their shift to ambulatory spaces.

Vascular: Endovascular peripheral procedures are anticipated to have a combined inpatient and outpatient growth of 7% over the next 5 years. Increased awareness and an aging population, along with increased prevalence of obesity and diabetes, all contribute to this increase. Low-complexity endovascular peripheral procedures are mainly performed as OP procedures already and increasingly performed in office-based labs.

Electrophysiology: Simple pacemaker implants were added to the CMS ASC reimbursement list in 2016. Nearly 70% of pacemaker and implantable defibrillator procedures are performed in the HOPD while 26% of these procedures continue to remain as inpatient status due to medically complex patients, emergent, and/or complicated high-acuity, resource intensive procedures. Implantable loop recorders are another EP procedure primarily performed in the HOPD that has seen movement to ambulatory spaces. Intracardiac catheter ablations, with strong projected growth over the next 5 years, are currently not approved by CMS for ASC reimbursement. The large capital investment for 3D imaging and electrical mapping, the need for advanced services (ie, surgical backup) in the event of a procedural complication, and the lack of Medicare reimbursement in the ASC mean that these procedures will likely remain in the HOPD.

Cath = catheterization; CCTA = coronary CT angiography; FFR-CT = fractional flow reserve CT.

Changes in Site of Care Delivery

Shift to Outpatient vs Shift to Ambulatory Sites

The shift of CV procedures to outpatient status over the last decade often resulted in a decrease in reimbursement while staffing, equipment, device cost and space (ie, cath lab, EP lab) continue to be a challenge. The shift out of the hospital comes with a much more complex calculus. Along with a change in reimbursement is a new set of considerations: staffing, supply chain and facility management.

The pandemic has pushed organizations to think about delivering care, especially procedures, in alternative care sites to limit potential sources of infection, maintain bed availability for patients requiring an ICU stay (such as those on ventilators), and focus resources on higher-acuity and medically complex patients. These factors have led CV service line leaders to enhance their ambulatory strategies by delivering care at alternative sites across the continuum. Organizations that use this as an opportunity to coordinate care and manage costs while ensuring high quality are well positioned to adapt and capitalize on changing market dynamics.

The shift of procedures off campus may be slowed by patient acuity, physician comfort, workflow challenges, Certificate of Need (CON) restrictions, physician alignment models and reimbursement considerations. According to CMS, 28 HCPCS/CPT codes account for 75% of the ASC surgical volume of services provided to Medicare beneficiaries in 2018. Many of these are for gastrointestinal, pain and eye procedures. CMS has only recently added cardiac catheterization procedures to the ASC-approved list, while low-complexity vascular procedures have already shifted into the office. Many cardiac procedures are performed in the hospital setting and are likely to remain there in the near-term.

Physicians are increasingly comfortable performing vascular cases in the ambulatory setting and acknowledge its benefits to patients and payers. The ability to improve access is also a value-add for many patients. While this trend is seen on a national scale, local dynamics like patient preference, reimbursement and physician preference will determine the pace at which vascular care shifts.

Semantics Matter: Office-Based Lab vs Ambulatory Surgery Center vs Hybrid Lab

The shift to the ambulatory settings continues to expand following CMS reimbursement changes. This has led to an increase in the number of OBLs that provide peripheral vascular procedures that focus on patient experience and a streamlined approach for physicians in a low-cost setting. Note that CMS has been inconsistent in its reimbursement changes, resulting in some OBLs converting to ASCs. Reasons to transition are primarily driven by a local case mix that benefits from ASC reimbursement. That said, this change is tempered by costs associated with converting to an ASC, the timeline for conversion and regulatory credentialing.

Many organizations have created a combination approach with a facility operating as an OBL or an ASC, depending on the type of procedures scheduled, the resources and staffing needed, and the optimal reimbursement for that specific day of cases. These hybrid models can benefit by functioning as an OBL for a portion of the week and as an ASC for the rest of the week to achieve commensurate reimbursement. The flexibility of a hybrid facility allows clinicians to schedule the right patient with the right resources for the right type of facility designation. A hybrid model creates the ability to adapt the staffing levels to the level of procedure complexity.

Market Level Considerations

The pace of the ambulatory procedure shift will vary based on an organization's strategic goals. Multiple factors will either expedite or slow the rate of this shift, as shown in Figure 1.

FIGURE 1. CV FUTURE STATE: WHAT FACTORS WILL SLOW OR SPEED UP THE SHIFT OF CV PROCEDURES IP TO OP

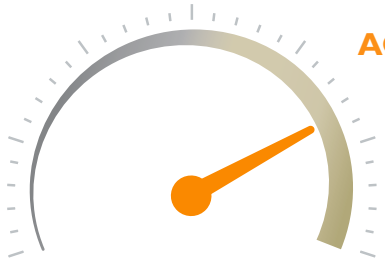
BRAKES

For All Procedures

- Physician engagement
- Caregiver practice patterns
- Lack of payment incentive
- Low hospital lab utilization
- Increased complexity and comorbidity of patients
- CON restrictions

Procedure-Specific

- Appropriate use criteria and new noninvasive technologies
- Drive towards office-based procedures



ACCELERATORS

For All Procedures

- Physician preference for more efficient spaces
- CMS and payer push for lower cost of care sites
- Consumer preference for both cost and comfort
- High hospital lab utilization
- Dynamic landscape for different forms of ASC ownership

Procedure-Specific

- PCI now added to CMS reimbursement list (allows for diagnostic caths to be converted)
- Physician preference for easier access to patients

Accelerating the Ambulatory Shift

Organizations may seek to move some lower-acuity procedures to ASCs to free up procedural and bed space from their hospital outpatient departments. ASCs also offer the potential to reduce waste and increase efficiency through a more focused procedural offering. Patient experience and lower out-of-pocket expenses, which ASCs can deliver, may accelerate an ambulatory shift in a highly competitive market. Physicians may also support the shift of procedures for scheduling convenience, the location of the ASC and the potential capture of additional revenue (if they are independent or owners of an ASC).

Slowing the Ambulatory Shift

Many CV procedures require the use of capital-intensive resources such as cardiac imaging, dedicated procedure rooms and expensive equipment. The high capital equipment costs and lower reimbursement for off-campus procedures will likely limit the number of ASCs that are able to and willing to invest in the equipment that enables them to perform CV procedures.

Physician alignment is vital for success. Over 75% of all cardiologists nationally are employed by hospitals or tightly aligned. An employed workforce means there is less of a financial gain for physicians to move off campus, particularly when coupled with the decreased availability of clinical resources in the event of procedural complications. Simple vascular procedures can be performed in an ASC, but they can also be performed in office-based labs that are not subject to expensive credentialing. On occasion, reimbursement is actually higher in these settings relative to ASCs. Electrophysiology procedures, such as device implants, can be performed in ASCs but require dedicated equipment and a procedure room.

Sg2 PERSPECTIVE: AMBULATORY READINESS CONSIDERATIONS

An ambulatory CV service line strategy involves attention to regulatory, strategic, financial and clinical considerations. The following are key considerations and analyses to determine if this is the right next move. Understanding each of these considerations, both individually and as a whole, is critical for creating an actionable, achievable and sustainable long-term strategic plan.

REGULATORY

CON, Credentialing and Legal Considerations—Will you need to go through the CON process to build/remodel an ambulatory site? Will you need CON approval for cath labs without on-site surgical backup? What are state/local requirements for office-based labs? What is the legal and financial relationship you will have with physicians at the ambulatory site?

- For organizations with CON regulations, starting with the OBL model that can transition to an ASC may be the best way to start.

CLINICAL

Physician Comfort—What percentage of patients do physicians feel comfortable working in an ambulatory space? What are the patient demographics in your market? Age? Disease burden? How will you manage and mitigate patient risk or respond to complications?

- Establish risk assessment and patient selection protocols.

Workforce—Can you devote dedicated staff (such as cath lab technicians) to an ambulatory space? Would they need to be shared with the hospital? Is there enough workforce in your area to support an additional site of care?

- Invest in the needed skilled staff to ensure a high-quality offering and physician satisfaction.

Clinical Innovation and Technology—How are you leveraging technology to decrease risk, complications and/or length of stay? For example, what percentage of cardiac catheter procedures use radial access and/or are same-day discharge?

- Measure the impact of new techniques and technologies on margins and quality. Participate in clinical research and registries.

STRATEGIC

Physician Alignment—Are your employed/aligned physicians motivated to move off campus? Are there large independent groups of cardiologists in your market? Will a new ambulatory site create any tension with employed vs nonemployed physicians?

- Create alignment opportunities for employed, aligned and independent physicians in the market.

Hospital Lab Capacity/Efficiency—Are your labs over- or under-utilized? How will a new lab in the market affect your hospital capacity and workflow?

- Perform a cath lab/EP lab utilization assessment to determine capacity needs.

Consumerism—Are patients being steered by payers in the market? Will patients have to travel to multiple sites if they need diagnostics, imaging and/or other clinical specialties? Is access to services a pain point for patients?

- Understand the needs of your patients to meet market demand.

FINANCIAL

Volume—What are the current volumes for your procedures and what percent would likely move out of the hospital based on patient risk, physician comfort and consumer choice? Would you be able to backfill any lost volume? Would your hospital free up resources for more complex procedures if you decanted volume? Can you capture those more complex procedures?

- Engage your physicians early in the process to do a detailed case assessment of the previous year's cases to estimate the percentage of cases that could have shifted to ambulatory.

Reimbursement/Financials—Will you need both Medicare and commercial patients to achieve a positive contribution margin? What is the impact of losing potential ancillary procedures that cannot or are not being performed in the ambulatory space? Are payers steering patients to the lowest cost site of care? Are they steering based on quality metrics? Are you dependent on commercial payers or one procedure? If reimbursement were to change would you be able to adapt?

- Create a pro forma that accounts for multiple scenarios.

Construction and Plant Considerations—Are you building new or remodeling an existing site? How close is the proposed site to the hospital? (Often, freestanding cath labs are attached to the hospital or are across the parking lot.) Due to the larger footprint required of cath labs, are you able to convert 2 procedure rooms to accommodate equipment?

- Perform a comprehensive inpatient and outpatient market analysis to understand space and location criteria that will lead to success.

Supply Chain—How is your supply chain being managed among your ambulatory sites of care? How are device costs accounted for?

- Factor in additional supplies and space to ensure you have what is necessary.

Sg2 RESOURCES

- Report: *Ambulatory Strategy—Recognizing the New Reality*
- Report: *Cardiovascular Service Line Outlook 2020*
- Report: *Procedure Sites of the Future—Transitions and Growth Across HOPDs, ASCs*
- You Asked: Cardiac Catheterization Lab Utilization

Sources: Medicare Payment Advisory Commission (MedPAC). Report to the Congress: Medicare Payment Policy. March 2020; Cross DS et al. Office-based lab models: getting started. *Endovascular Today*. March 2017; Edmiston J and Horton W. Maximizing reimbursements and compliance. ASC Focus. April 2018.