In today’s highly competitive health care market with cardiovascular services comprising as much as 40% of acute care revenues, it makes sense to take a critical look at that service line to see where it stands and where it is going.

All acute care hospitals provide some level of cardiac services, ranging from non-invasive diagnostics to full invasive and surgical cardiac care. Yet very few program administrators take the time to thoroughly assess how their programs stack up.

Successful cardiovascular programs demand ongoing attention to the effectiveness of all the factors that influence results. These include organizational structure, data systems and information management, quality assessment and performance improvement, operational efficiencies, personnel utilization and management, finance (cost and revenue), and program marketing.

The CV services administrator must appreciate and understand where the business comes from and where it goes. Other issues are equally important. What does it cost to run the business and who can run it? What will it take to grow the business and in what direction should it grow?

The best way to address these questions is to periodically perform an internal program self-assessment.

Begin with a review of the organizational structure for all services related to the provision of cardiovascular care. In a service line model this is easy, as all cardiovascular service areas report either directly or indirectly to a CV administrator or director.

Data management is critical to a successful CV program so that volumes, costs, revenues and outcomes can be reviewed and acted upon.

(Continued on page 13)
This allows for information regarding each individual service to be reviewed not only in the context of the individual service, but also within the scope of the overall cardiovascular program. Surprisingly, very few hospitals take a true service line approach, in which all information related to the service line flows to a central point for review and decisions.

**Service silos can be barriers to success**

If the present structure does not allow for service issues, volumes, costs and patient outcome data from individual departments to be reviewed by a CV Administrator in context with the other cardiac services provided, the hospital essentially is providing multiple cardiac services in isolation from every other cardiac service. These service silos make it difficult to distinguish what issues are having an impact on the institution’s services, where the real problems are coming from, what the program’s strengths are, and what inter-relationships exist between services.

Many cardiovascular services overlap. Take, for example, a patient with an abnormal treadmill stress test who is referred for a cardiac catheterization. In turn, a patient with abnormal cardiac catheterization is referred for coronary artery bypass graft (CABG) surgery. Upon discharge, a patient who has had CABG surgery is referred to cardiac rehabilitation. Thus, it is critical to be able to monitor cardiac services as a whole as well as individually.

**Data systems and information management**

Take a close look at how your hospital currently collects data, manages data and reports results for CV services. Data management is critical to a successful CV services program so that overall volumes, costs, revenues and outcomes can be reviewed and acted upon.

Data collection and management can be performed in many ways, ranging from the use of manual data extraction and compilation processes to integrated automated data management systems that incorporate financial and clinical data. Although the use of a computerized data management system will be more efficient, it can also be expensive. The level of sophistication of the data management system is not as important as the types of data collected and reported and how they are used to review overall program operations and outcomes.

Software to collect American College of Cardiology (ACC) and Society of Thoracic Surgeon (STS) data is of great value in terms of the data elements collected and how that data can be used internally to review patient outcomes and individual physician practices.

Data from all areas of the cardiac service line should be reviewed in an integrated fashion. A committee should be established to review the service line data, make recommendations, and initiate actions for change. This committee is usually a part of the hospital’s quality improvement/process improvement program and should be multidisciplinary.

**Quality assessment, performance improvement**

Quality assessment (QA) and performance improvement (PI) in the cardiovascular program is closely related to and interdependent with data and information management. Appropriately evaluation of the CV program requires an administrator to know what indicators regarding volumes, finance, and patient care outcomes are being monitored once the data is collected. The administrator must then ask a series of follow-up questions:

- How is the information analyzed and, most importantly, how is the information used to promote change?
- Is there an established process in the CV program to give performance feedback to the staff and physicians?
- When problems are identified, what is the methodology for root-cause analysis?
- How is a plan for change implemented?
- Once change has been implemented, how is reevaluation completed?

In summary, it is imperative to identify key indicators, monitor them closely and act quickly on areas of concern.

An administrator can also skillfully apply trending techniques to the data when a negative pattern is identified, which can be very helpful in motivating staff and physicians to take proactive measures to solve problems. Physician “report cards” that identify individual physician practice patterns such as length of stay, cost per case and clinical outcomes are also useful. A medical advisory committee is a valuable way to identify and manage physician performance issues.

Although personnel performing each service may monitor indicators for QA/PI, the data from all service areas should be integrated to reflect overall program performance and identify opportunities for interdepartmental process improvement. Be sure to make use of national data benchmarks from organizations such as ACC, STS and NRMI (National Registry of Myocardial Infarctions) to compare your program data with outside performance references.

(Continued on page 14)
(Continued from page 13)

Don’t overlook the importance of assessing participant satisfaction (patient, physician and staff) in your CV program. Periodic surveys of these groups provide valuable information regarding the strengths and weaknesses of the CV program from each participant’s perspective. Patient concerns may focus on the ease of access, quality of care and personal service. The physician may be more concerned with how quickly and easily patients can be scheduled, accommodation of the physician’s schedule for CVOR or cardiac catheterization lab time and availability of the latest equipment and technology. The clinical staff may be concerned about salary and benefits, staff-to-patient ratios and work schedule flexibility.

Operational efficiencies

Programs must be reviewed periodically for core program factors. Consider your responses to the following basic considerations:

• How easy is it to schedule a test or procedure?
• What is the backlog or waiting time to get a patient on the schedule for a test/procedure?
• How difficult or easy is it for patients to get to the facility, park their cars and get into the testing area?
• What is the patient flow between CV areas? What is the proximity of services to each other? What can be done in service areas to improve work flow for the staff?
• Are there opportunities to remodel or relocate services to complement the program and provide for physical plant changes and other space needs?
• Can scheduling be centralized to simplify the process for patients and physician offices?
• Can registration be decentralized to allow patients to proceed directly to the testing area without having to first visit a registration area?
• Are there communications systems in place to provide consistent and timely delivery of needed patient information from one service area to another?
• What are the operating hours of each CV service and do they meet the needs of the patients? Do they meet the needs of the physicians?
• Review these operational issues to determine if the program is meeting present needs and to anticipate any operational changes to meet future needs. Successful CV program services are easily accessible (for both patients and physicians), and are well-organized, consistent and timely.

Personnel utilization and management

Health care personnel shortages almost everywhere in the nation dictate that special attention be given to reviewing how services are staffed. Is there adequate staff? Is there qualified staff? Is there the right mix of staff for the care that needs to be accomplished?

Examine the services provided and determine the number and types of health care personnel appropriate to provide the service. The scope of care provided by ancillary, technical and professional staff has changed dramatically over the last five to seven years. Some services previously provided by professional RN staff are now carried out by technical personnel. Ancillary staff now perform services previously provided by technical personnel. Revise your mix of personnel in each department to optimize use of staff.

Cross-training staff members also can help maximize use of personnel, so that staff from a less-busy department can help a busy service. This allows for flexibility in critical staffing situations. Be sure to pay sufficient attention to education, training and ongoing competencies of personnel when considering cross-training or when revising or adding to existing responsibilities.

Review staff turnover rates related to specific departments and determine why staff leaves. Departures may be related to the working environment (workload, physical plant, management expectations, work schedules) or strong demand for these people in the job market. With increasing competition for experienced health care providers, staff are being lured to new employment opportunities by higher salaries, bonuses, matching vacations and flexible schedules.

Financial considerations

As with any business endeavor, financial considerations are a priority.

Pay close attention to CV service operational budgets by examining budget variances and their causes. Technological advances related to CV care have been arriving fast and furiously. However, not all technologies are reimbursed or yet proven cost-effective. A tertiary care center often has an opportunity to capitalize on new technologies and draw market share by adding a new technology very quickly after its introduction and winning referrals from facilities that do not yet offer the service.

New, costly technology may prove too expensive for a smaller community-based program to provide without adequate reimbursement. When considering use of new technologies, evaluate all the critical factors related to cost and return on investment, including capital outlay, reimbursement, potential for positive outcomes, expected volume and use, and potential to draw market share. The CV program’s technology committee can
review specific criteria for considering the use of a new technology.

**Vendor contracts**
All vendor agreements should be examined periodically to determine if the conditions of a contract require revisions to reflect changes in practice and use patterns. This same group should provide input and assist in planning for capital purchases or equipment replacements and upgrades.

Essential elements of successful CV service line programs are ongoing review of reimbursement levels, coding and billing procedures. All areas must periodically review regulations and HCFA requirements for changes in reimbursement, new or revised procedure codes and updates to APC codes.

Administrative departments must work closely with physicians to ensure that appropriate documentation supports the coding. Managers must also continually provide additions and deletions to the charge description master for billable items so that charges for new disposable supplies are not lost.

Although many hospital financial systems lack the ability to provide true cost accounting on each case, there are methods to determine average cost per case, cost per procedure and cost per service. Each CV service area should be able to identify and periodically examine those costs to determine any changes and their impact on the operational budget. It is the role of department managers to investigate methodologies to hold steady or decrease their costs per case.

**Program marketing**
CV services can amount to a significant portion of the hospital’s revenues, and therefore it is important to actively market the hospital’s full range of CV services both to consumers and to the physicians who refer or have the potential to refer patients to the program.

Successful CV programs are aware of their market share and actively engage strategies to not only maintain, but also grow that market share. The CV program strategic plan should act as a template for directing marketing activities to both consumers and physicians. Dollars must be allocated to this in either individual department budgets or in an overall CV program budget. The CV director must examine what marketing activities have occurred, their effectiveness and determine where next to direct those marketing dollars.

**Program strategic planning**
Does the CV program have a strategic plan? By using strategic planning processes, hospital providers can make critically important decisions that are market responsive, patient focused and user-friendly for personnel and medical staff.

A strategic plan will outline the CV program’s overall goals and can allow the manager of each cardiac service to determine how it can best contribute to the achievement of the overall goals. Strategic planning should include a review of present services and current operations, proposed services (emerging technologies and services), equipment and staffing needs with input of medical and clinical staff.

Your CV program’s strategic plan should consider areas for consolidation of services and staff as well as opportunities for expansion. Are there programs or services that the hospital cannot bear financially and that do not generate enough volume or referral business to make economic sense? Likewise, strategic planning can determine if program growth into additional areas would be productive.

For example, expansion of an established CV program into preventative/wellness programs, peripheral vascular programs and disease management (such as CHF or Coumadin Clinics) may prove advantageous by addressing the entire continuum or scope of care.

**All stakeholders need to participate**
Make sure your strategic planning committee is composed of key stakeholders from administration, medical staff, clinicians, finance, and process improvement. Set some times for your committee to convene and outline the vision, goals and direction for program revision.

Ensure your strategic planning committee is charged with:
- Reviewing the program’s present situation
- Determining customer needs related to cardiovascular services
- Outlining the program’s vision and goals
- Determining areas for revision/improvement
- Determining areas for consolidation or expansion
- Providing the framework for implementation of change
- Facilitating the implementation of changes
- Providing the means for evaluating program changes.

A program that is not where it needs to be may also give serious consideration to revising the program’s organizational structure to allow for a more integrated approach, making it more of a service line model.

Marsha L. Knapik, RN, MSN, CCRN, is a consultant for Health Care Visions Ltd., Pittsburgh, Penn., 412-364-3770. www.hcvconsult.com