Implementing a Service Line
Management Model for Cardiothoracic
Surgery and Cardiology

Why Should a Hospital
Develop a Cardiac Service
Line Management Model?
The cardiac service line man-
agement model integrates the
operations, marketing, and fi-
nancial functions within a single
reporting structure to assure or-
ganizational focus, accountability,
market responsiveness, and ex-
pedited decision making. Creating a
service line allows the organiza-
tion to work outside the traditional
boundaries to rapidly set the direc-
tion, install new standards and
processes, and closely monitor
progress against stated goals.

The Impact of the
Cardiovascular Product Line
Cardiovascular services rank
consistently as the most strat-
egically and financially important
product line for U.S. hospitals,
both large and small. Typically,
20-40% of a hospital’s revenue
is derived from cardiovascular
services. National market demand
for cardiac procedures shows con-
tinued growth of 5-10%, driven by
expanded technology and the
needs of the aging population.
Cardiovascular disease is the
leading cause of death in the
United States.

The Benefits of a Cardiac
Service Line Management
Model are Many
By focusing on one specific
product line the cardiac service
line manager can concentrate on
the delivery of care over the
entire health care continuum.
The attributes that are identifi-
able from a cardiac service line
management model include:

- Manageable span of control
- Liaison to cardiologists,
cardiothoracic surgeons, and
ancillary support
- Enhanced daily operations
- Delivery of a high-quality service
- Identifiable market strategies
- Competition assessment
- Accountability for costly
cardiovascular services
- Financial analysis by DRG
and APC
- Contribution to the hospital’s
long-range planning
- Outcomes measurement
- Identifying services that are
duplicated
- Improved productivity
- Reduction in turnaround time
and employee downtime
- Fiscal resource for payer
negotiations
- Implementation of dedicated
service within the organization

Hospitals should migrate away
from the traditional centralized
management structure. The multi-
level centralized management
approaches are not optimal in today's environ-
ment. By decentralizing the manage-
ment structure we become more
flexible, innovative, and can rapidly
adapt to the ever-changing health
care market. To effectively compete
hospitals need to focus on strategic
product lines, monitor and contain
costs, increase volume and market
share, differentiate themselves
from the competition, and stra-
tegically plan to meet the long-term
needs of their markets.

It is more common for large,
teaching, tertiary hospitals and
institutions to utilize the service line
management model. However, com-
community hospitals opening ambula-
tory surgery, cancer and heart
centers, for the most part, retain the traditional centralized management model. Many different types of competitors are compressing the hospital's market share. Moving to a more effective, efficient, and focused management style may be critical to insure future viability.

**Developing Profit Centers for the Cardiac Product Line**

To better manage and quantify the service line approach, hospitals need to decentralize the services that support DRGs and APCs into profit centers. The reorganization process should evaluate how functional departments such as nursing, laboratory, pharmacy, and social work can be matrixed into profit centers. This decentralizing and segregation of services provides the infrastructure required for the service line management model. This framework will provide the cardiac service line manager with an administratively manageable profit center that will be in sync with the environment, competition, and operational issues that directly affect the accomplishments and success of product-line services.

**The Cardiac Service Line Manager Role**

The cardiac service line manager is responsible for the management, marketing, financial, and operational performance of the cardiac product line. The cardiac service line manager should be a member of the administrative team and should have buy-in from the team to implement service wide changes across departmental lines. This will improve internal and external communication regarding service line initiatives.

The cardiac service line manager must understand the overall hospital operations, relationships, financial and business principles, and quality improvement process. Clinical experience is helpful but not necessary for the cardiac service line manager when they have a strong clinical team reporting to them on the organizational chart.

The cardiac service line manager should have an organizational model that reports directly to hospital administrators (e.g., Chief Operating Officer, Chief Nursing Officer, or Vice President of Patient Care Services) as well as many cross-reporting relationships with clinical counterparts. When structuring the cardiac service line, it is necessary to stratify the business and define your customers with a focus on the entire process not the individual functions.

The cardiac service line manager must develop strong collaborative relationships with physician and clinical providers. They must have the ability to interface in concert with the Chief of Surgery, Medical Director for Cardiology, Cardiothoracic Surgery, Cardiac Anesthesia, Vascular Surgery, Radiology, Emergency Room Physicians, Internal Medicine, Family Practice, Clinical Directors and Hospital Administrators. The service line manager, physicians, and hospital management team collaborate on capital equipment acquisitions, program changes and developments, and marketing strategies.

**Business Planning for a Cardiac Product Line**

The marketing, financial, and operational plans for the cardiac product line should be a subset of the overall hospital business plan because of its financial and operational impact on the organization. The cardiac business plan and clinical outcomes should be tracked and monitored by the associated DRGs and APCs. This system clearly defines both the patients and providers who function within the cardiac product line.

**Market Strategy and Plan Development**

The marketing plan should be co-authored by the Vice President of Planning (Marketing Department) and the Cardiac Service Line Manager. Prior to preparing the marketing plan a SWOT (Strength, Weaknesses, Opportunities, Threats) analysis should be performed for the cardiac product line. The primary and secondary markets are evaluated by looking at the competition, demographic information, and State and hospital data on the DRGs and APCs for the hospitals surrounding zip codes. Include in the plan the impact of third party payer's contracts needs on the cardiac volume projections.

The development of the advertising campaign should consider the media costs for TV, radio, print, and presentations. Once the advertising budget is established, in-house programs can support the timeline frame and the type of media used. The cardiac service line manager can compliment the advertising campaign by presenting the benefits of the hospital's cardiac surgery/heart center to the community. The presentations should target the Kiwanis, Rotary Club, Senior Centers, Churches and Community meetings. The benefits from this type of approach can be significant for newly created and existing programs.

**Program Development through Financial Analysis**

A dedicated fiscal coordinator/financial analyst should prepare the financial plan with input from the cardiac service line manager. The financial plan will utilize the volume projections prepared in the marketing plan. The annual financial capital and operating budgets under the service line approach include cardiovascular services (non-invasive), cardiac anesthesia, cath lab (diagnostic and interventional), cath lab recovery, cardiac operating room, perfusion, cardiac intensive care unit (CICU), telemetry (step-down) unit, cardiac care unit (CCU) and cardiac medical/surgical unit patients.
The financial analysis should include:
- Contribution statement analysis by DRG and APC
- Report card by physician / DRG / APC for all components of the product line
- Actual vs. budget analysis for revenue, salary and benefits and other expenses by line item within the profit centers
- Spin off revenue and costs for ancillary areas as a by-product of the cardiac service
- Cost per case drill down reports by function

The cardiac service line manager with fiscal and performance improvement services support need to develop physician report cards. Physician report card information should be kept confidential using an alpha code by physician and released in a manner that facilitates each provider’s ability to benchmark against the peer group. Any outliers within the report cards should be researched for further understanding prior to presentation. The sharing of the physician report cards should be handled cautiously and diplomatically.

Comparison of physicians and provider group differences by report cards if done appropriately can create a healthy competitive environment and improve quality and cost data outcomes.

**Operationalizing a Cardiac Service Model**

The service line / product line approach compliments outcome management. The cardiac service line approach is patient-centered care. The focus is on the patient population with cardiac disease across a broad continuum of care. It provides solutions and results that can give a hospital a competitive advantage.

The process of caring for this complex patient population has to move toward thinking outside the box and not by the traditional functional departmental approach.

Establishing a Heart Steering Committee orchestrated by the cardiac service line manager that has the following listed members:
- Medical Director of Cardiology
- Medical Director of Cardiothoracic Surgery
- Cardiac Anesthesia
- Medical Director of Internal Medicine / Family Practice
- Vice President of Administration (Chief Operating Officer)
- Vice President of Patient Care Services (Chief Nursing Officer)
- Vice President of Planning
- Vice President of Ancillary Services
- Clinical Director for Heart Center

The President (Chief Executive Officer) should be involved with the committee to expedite appropriate organizational changes and implementation.

The Heart Center Steering Committee supports the cardiac service line manager in implementing new strategies and ideas across traditional boundaries. Reporting to the Heart Steering Committee are three sub-groups. Pre & Post surgical, Interoperative and Cath Lab / Cardiovascular Services. The nature of clinical practice is changed from nursing care to a multidisciplinary model that is patient centered and includes all ancillary services and disciplines working together as a team.

The cardiac patient clinical pathways need to be developed from point of entry to post discharge. Following the patient through the continuum of care allows the multidisciplinary team to focus on the entire process of care and establish daily operational activities and indicators. Multidisciplinary teams meet monthly to review data and adjust/change operations as required.

Implementation of a dedicated facility by service / product line has many advantages and can be incorporated into any hospital setting. For existing programs the issues are different then for a start-up cardiac surgery / interventional program in a community hospital.

**Implementation of “One Stop-Post Op”**

A component of a heart center is the option of a “one stop-post op” approach. This option combines CVICU, telemetry, and medical / surgery into one unit. The “one stop-post op Heart Center” for post cardiac surgery and interventional patients has shown the following benefits / advantages:
- Decreased length-of-stay and cost per case
- Cross trained, multi-functional teams
- Improved patient/family satisfaction
- Active family involvement
- Physician / CVICU nurse / employee satisfaction
- Earlier recognition and treatment leading to reduced complications
- Improved communications between cardiologists and cardiothoracic surgeons
- Continuous quality enhancement (COE) in one setting
- Can add/subtract from the room for required functionality
- Improved clinical pathway management and adherence
- Competitive advantage
- Third party payer negotiation point

The cardiac service line creates a framework that supports a comprehensive clinical and business management structure focused on the cardiac patient population. The service line manager can focus on a specific product mix (Cardiovascular Services) for a particular market niche that will out-perform the conventional, centralized model, which attempts a broader mission. The cardiac service line manager can quickly identify issues and opportunities in the clinical, marketing, financial and operational arenas that will give the hospital a competitive advantage. This model promotes excellence and shared leadership that is customer driven. • ICM