Advantages of Outsourced Clinical Engineering Model Outweigh In-House Model

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THE MISSION OF HEALTHCARE TECHNOLOGY has always been to support the delivery of healthcare by insuring the availability of safe and effective medical technology in a cooperative effort with other members of the healthcare team. In the past, the role of clinical engineering (CE), as part of the healthcare technology field, was largely thought of as a “maintenance” function with primary responsibilities including inspection, preventive maintenance and repairs on all medical equipment.

However, with today’s trend toward personalized healthcare through integration of medical technologies, the role of CE is poised for change. Once seen as a hospital’s traditional cost center, clinical engineering can become a strategic enabler in the transition to personalized healthcare.

So the question becomes…

“Can your clinical engineering team handle the transition?”

That depends on a few key questions:

1. Does CE provide you with key informatics for asset utilization, optimization and capital planning?
2. Will you invest in the necessary tools, training and skilled labor to ensure success?
3. Do you have access to national data and trends for benchmarking your performance?
4. Is reliance on your in-house team and subcontractors a truly cost-effective model?
5. Is focusing on CE distracting your team from its core competencies?
6. Do you believe your CE team is world-class when it comes to quality and compliance?

If any of these questions raise doubt about your internal capabilities or organizational focus, you should consider outsourcing your CE functions as we did at Virtua. Shifting CE functions from an in-house model to an outsourced service model accelerates this transition, ultimately consolidating all tasks under one vendor. The benefit of such a shift reduces costs associated with clinical engineering while improving capital planning and standardizing inventory management. More importantly, what may seem simply an asset management solution can lay the foundation for a comprehensive strategy that can help healthcare organizations address current and future healthcare issues.
WINDS OF CHANGE

Service strategies have traditionally been oriented simply toward the maintenance of equipment. Today’s more challenging environment requires that it also focus on processes and technology that have more far-reaching implications across the enterprise. In the current system, CE must encompass much more than just the basics such as inventory management and preventive maintenance. It must also function as a method for managing a more complicated compliance environment while taking a more targeted and data-driven approach to true asset lifecycle management principles that ensure limited capital dollars are spent most effectively. The primary disadvantage of an in-house service model is the sheer scope of modern CE responsibilities.

Organizations deeply rooted in an in-house CE department may not have the internal resources to successfully implement a detailed, comprehensive CE program that can execute effective, results-oriented capital planning, asset management, compliance, and quality service.

To expect that an in-house department possesses the scope of skills necessary for success is often unrealistic. Staffing, training, and educating in-house technicians to handle the variety and sophistication of available healthcare devices can be cost prohibitive and inefficient. An outsourced model provides greater training opportunities for technicians to become experts on an array of clinical and diagnostic devices, ensuring that those utilizing an outsourced model can access experts on any type of equipment or device easily and quickly. Ultimately, the goal is a more cost-effective CE model with improved efficiency.

Key considerations for healthcare executives launching an outsourced CE model include how such a program can improve capital planning, operating costs, compliance, and quality. Let’s explore the key factors of each of these.

CAPITAL PLANNING

To remain viable, any organization must effectively manage its assets, and an accurate inventory is an essential component of any effective asset management program. Hospitals typically set purchasing priorities by comparing current inventory against department requests. Unfortunately, if asset inventories are inaccurate – and for many hospitals they are – precise capital planning can be virtually impossible.

Many CE models enable healthcare organizations to track their full inventory in real-time. Such programs use a Web-based inventory system to collect quantifiable data on equipment age and condition, number of service calls and uptime percentages. However, only by leveraging the breadth of knowledge from an outsourced provider with hundreds of other accounts can you get access to critical information such as; benchmarks of device reliability and stability, comparisons of device volumes required by same-size peer hospitals, and comparisons regarding equipment approaching end of life. The result of more robust data sets is more successful capital planning and greater efficiencies in managing the changing needs of the hospital.
**REDUCED OPERATING COSTS**

Instituting an outsourced service model can decrease the costs of managing clinical assets, while improving operations. Key to this potential windfall is finding hidden costs, saving through standardization, and using a strategic approach to servicing assets.

Often the result of an in-house CE model is a myriad of contracts to support equipment from various vendors. From an administrative viewpoint, the sheer number of resources required for tracking and servicing equipment is difficult to manage.

**COMPLIANCE**

Regulatory compliance is essential to patient safety and equipment service. It requires significant resources to keep up with changing and more difficult standards and prepare for audits. An outsourced service model takes the pain away from the healthcare providers having to effectively track all clinical assets and repairs, shifts that burden to the service provider and greatly simplifies the compliance process for the facility. An outsourced service provider faces a multitude of audits every year and can help sites prepare more effectively for inspections and pinpoint trends in enforcement, which is more than an in-house model could ever do.

**QUALITY**

As medical devices grow more sophisticated, skilled service personnel become more critical. Technicians who are current on training and available around the clock are vital to making sure equipment is maintained with precision, diagnosed with speed, and repaired correctly.

Outsourcing can provide immediate access to service for even the most sophisticated devices from one source. Technicians have device-specific training, are equipped with the latest service manuals, test fixtures and diagnostic tools, and have access to training for today’s most advanced technology.

In-house models can do a good job of training service technicians up to a certain point, but the remote capabilities, advanced training, and access to a hierarchy of increasingly skilled experts are things that an in-house program cannot compete with. Additionally, in the future, medical equipment and information systems will become more closely linked, with data flowing between them in both directions. This increasingly complex environment will be taxing on an in-house CE program in terms of training and execution. Carefully planned outsourcing is one important element of a strategic plan to set your organization up for success now and in the future. Specifically, outsourcing clinical engineering to a reliable third party that can provide all aforementioned advantages helps to create a more efficient and cost-effective model for managing your own resources.

By leveraging the CE provider’s expertise and support, hospitals benefit from greater predictability, control and cost savings. Large CE providers have the resources to support specialists for high-end modalities across their customer base, whereas an individual hospital or health system typically cannot. Reduced material costs resulting from economies of scale and lower negotiated prices, and the ability to keep up with newer technology can help healthcare organizations gain an edge on their competition.
KEYS TO SUCCESS

Perhaps the most important factor for healthcare administrators contemplating the move from a deeply rooted in-house model to an outsourced model is people. Outsourced service has been proven time and again, but without the right people any program is doomed to fail. Good values, teamwork, respect and integrity are keys to success. Looking at the education, competency level, and the technologies available to the CE staff can ensure a continuous and active dialogue between client and service provider. Weaving the expertise of an outsourced vendor into the fabric of your organization not only creates a positive environment, it establishes one that operates efficiently and seamlessly.

With quality patient care and satisfaction as the foundation, healthcare organizations must decide how to best utilize their resources. To remain true to their mission, executives must choose to allocate resources that help strengthen this principle. Although clinical engineering is a non-revenue-producing department, outsourcing can transform it to become a source of dollars and informatics for capital investments. This strategy will enable hospitals and healthcare systems to remain highly competitive and focus resources on its core competency – consistently delivering high-quality, safe patient care.