The efficient management and maintenance of physical assets – from computers and CT scanners to hospital facilities and generators – has long been a principal challenge for healthcare decision makers. From administrators, doctors and executive leaders to facilities management and operations staff, healthcare professionals of all stripes have wrestled with the complexities of an industry that is becoming increasingly reliant on highly specialized machines to provide the diagnostics and treatment required to optimize patient care.

A “life-cycle management” approach to maintaining, servicing and (when necessary) replacing physical assets can have an enormous impact on a healthcare facility/organization. That impact ripples both upstream and downstream, influencing everything from design and construction to operations, maintenance and repair – and even personnel productivity.

What follows is an overview of some of the biggest challenges associated with implementation and optimization of an effective maintenance management program, the risks associated with lack of an effective and efficient maintenance-management program, solutions to address those challenges and risks, and a detailed look at the best practices and business results from the implementation of a successful enterprise asset-management (EAM) software strategy to support an overall maintenance-management program.

Challenges of maintenance management

Perhaps no single example better illustrates the unique challenges faced by the healthcare industry than the directive issued in December 2011 by the Centers for Medicare & Medicaid Services, the federal agency responsible for administering Medicare and other state and federal insurance programs. CMS set forth regulations that the manufacturers’ recommended technique for maintaining equipment must be followed at all times. While some exceptions may be made regarding frequency of maintenance, inspection and testing activities, those adjustments can only be realized following an assessment by qualified personnel and will only be approved after new equipment has accrued sufficient maintenance history.

Compliance with such a sweeping and inflexible mandate presents an enormous challenge for every hospital and healthcare facility – even some that may already have maintenance-management programs and systems in place. Healthcare operations that lack systems with the necessary flexibility to adapt have been particularly hard hit by this mandate. Because non-compliance can have significant operational and financial ramifications, compromise is not an option.

In addition to regulatory requirements, healthcare professionals have a host of other maintenance challenges to overcome, including:

• Standardization of processes, procedures, data, etc.;
• Visibility of maintenance costs and information;
• Inefficiency due to information in disparate systems or standardized processes;
• Inflexibility of maintenance program to respond to unexpected challenges in a timely manner;
• Fulfilling required specialty trades – plumbing, electricians, HVAC, etc. – to successfully execute a project while staying on budget;
• Funding deficits related to the cost of properly maintaining or replacing assets;
• Declining budgets for support positions (administration and maintenance); and
• Leadership conflicts (administrative vs. medical management perspectives).

One of the emerging maintenance-management challenges is the current healthcare industry trend toward consolidation in the...
Implementing/optimizing an EAM system

The value of a successful maintenance-management program supported by an integrated software solution is profound. This combination can be the foundation for healthcare organizations to achieve full visibility to the entire lifecycle of invaluable assets. But what do healthcare organizations need to do – and understand – in order to implement that kind of next-generation system?

Visualize and design: First and foremost, identify operational priorities. The best EAM systems operate with a large amount of flexibility and can be adapted to suit the individual practices and professional goals of an organization. Once the healthcare organization establishes what it needs from the system – from big-picture goals down to the smallest details – the next step is to determine how you actually want it to work. A professional consultant can walk you through that process, helping to define the maintenance program and strategy.

Lay the groundwork: Identifying specific maintenance standards and metrics can be a challenge. But in order to fully utilize the power of an EAM system – with its ability to track those disparate variables – those standards should be clarified ahead of time. It is also important to identify, evaluate and mitigate or resolve any post-implementation risks/liabilities. For example, centralizing all replacement parts can actually create a surprisingly difficult inventory problem. Finally, the requirements for an effective software solution that will support your program, processes and procedures should be identified and carefully noted.

Train and deploy: Educate the team responsible for transforming your maintenance practices and implementing your system. Even the best system is only as good as its users, and helping users achieve technical and operational fluency is a must. Once thorough training is complete, implement your maintenance practices and deploy the system to support said applications.

Stay on track: Deployment is just the beginning. The up-front investment is where most energy is expended, but it is also important to conduct regular follow-ups and periodic formal evaluations to ensure that the new maintenance management program and supporting system are working as intended and delivering the anticipated results. Reinforce the program through ongoing training and support.

Healthcare professionals who follow these recommended practices will benefit from the integrative efficiencies and logistical power of a system that generates an extraordinary level of added value. The best EAM programs balance predictive, preventive and corrective maintenance to minimize or avoid catastrophic breakdowns. They facilitate tracking, monitoring and recording of critical information, as well as planning and scheduling of technicians and materials. New maintenance and management efficiencies can dramatically lower overhead: this unified approach to capital infrastructure management makes scheduling both smart and efficient, facilitating the management and deployment of assets across various departments and facilities. As a result, the best systems are capable of not just corrective and preventive maintenance, but true predictive maintenance.

Ultimately, healthcare organizations can leverage these powerful new tools to improve performance, reduce capital and operating costs, extend asset life and derive the greatest value from their capital investments. The result is improved compliance, efficiency and profitability – all while minimizing waste and avoidable expense and limiting costly downtime.

About the authors

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