Understand the Trade-offs Before Pursuing an Anesthesia Information Management System (AIMS) from Your EHR Vendor

With nearly 60% of hospital revenue generated from the perioperative area, an AIMS has the potential to optimize clinical, financial, and administrative outcomes for hospitals and hospital systems as well as for anesthesiologists and other members of the perioperative care team. When selecting an AIMS, healthcare leaders would do well to address some critical questions regarding interoperability and usability satisfactorily before migrating to a one-size-fits-all healthcare IT solution. Specifically, healthcare leaders must examine the trade-offs between adopting a potentially less mature one-size-fits-all AIMS from a “whole house” vendor or a more mature and useful solution from an EMR-connected AIMS vendor.

“People often assume that there are benefits to integrated healthcare IT systems and while the integration argument is not without merit, an integrated system alone cannot outweigh what we have been able to do with our AIMS. We can’t be asked to go backwards from a clinical perspective and use systems just because they are ‘integrated.’ Our system was built by physicians and the application’s fundamental structure and effectiveness reflects that.”

Kevin Wethington, M.D.
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Vetting the Value of a One-Size-Fits-All Approach for AIMS: Is an Integrated Health Information Technology the Holy Grail?

To date, healthcare organizations have built a complex system of commercial and proprietary applications to meet and, hopefully, to exceed the needs of the anticipated healthcare market. These organizations have been required to overcome integration challenges by creating seamless “handshakes” among and between software applications and, to their credit, have done so without commonly accepted technology infrastructure guidance. Some of the systems and vendors can interoperate easily, and others require “brute force” to achieve information sharing.

While most organizations desire seamless information flow, they often employ different decision criteria to guide their approaches. As a result, some hospital IT departments and vendors alike have sought “fully integrated” systems with a primary focus on an integrated inpatient EHR. This is a step that many hope will help to integrate clinical and administrative data across and between enterprises.

But a key questions remains. What about all the other healthcare IT systems besides the EHR, more specifically what about an AIMS? Is it a realistic expectation that a vendor specialized in inpatient EHR records can have a strong solution when it comes to this relatively new technology?

AIMS Technology: Innovation, Integration, and Implementation

An influx of dollars into the healthcare IT industry due to government regulation including the Health Information Technology for Economic and Clinical Health Act (HITECH) has resulted in new market entrants and has led current vendors to pursue expanding their core capabilities. Newcomers may lack the years of investment in research and development and the corporate stability of vendors that have been innovating in this space for years. This lack of insight may not be tied only to new vendors but also to “crossover vendors,” or those that are trying to make the leap from a broad EMR capability to highly sophisticated settings such as AIMS.

Adoption of an AIMS should require minimal transition time and cost. Clinicians and staff require intuitive software that can be easily learned by physicians and staff without excessive training time. For physicians every day outside the OR means lost income, and for hospital staff every day outside the OR means lost hospital productivity. J.L. Epps, M.D. and Chairman of the Department of Anesthesiology at University of Tennessee Medical Center in Knoxville (UTMCK), notes how an intuitive AIMS can ease implementation: “The AIMS we deployed is well thought out which made us able to adopt it fairly simply.”

Real-time Clinical Decision Making: AIMS as a Best Practice Strategy

A recent study of 235 hospital executives showed that current AIMS users want configurable systems that support anesthesiologists in their care delivery in real time and superior reporting tools. “Today, information is power,” states Dr. Wethington, who adds, “Physicians need information to make decisions. The type of electronic system affects a physician’s ability to do the job—electronic systems decisions are more than just a financial issue.” Physicians should be able to customize AIMS to mirror clinical workflow and to support evidence-based medicine which can accrue real benefit.

Financial Considerations: Optimizing the Hospital’s Largest Revenue Center

While some healthcare leaders consider technology purchases strictly as a cost, many now see the effects of an healthcare IT system on both costs and revenues. A technology portfolio could be viewed similarly to an investment portfolio where an AIMS investment directly affects the surgery department. Viewed in this way, an AIMS investment is an opportunity to optimize one of the most important parts of the overall hospital revenue portfolio. The systems should have reasonable start-up costs with a reasonable total cost of ownership (fully-loaded for hardware, software, and professional services over a five-year period) for the solution. At the University of Utah where they have an enterprise EMR and Centricity Perioperative, GE Healthcare’s AIMS, Dr. Wethington notes that on a scale of 10 (best) to 1 (worst), “Our ability to interface our AIMS, including the financial picture, is a 9.”

Technology that Drives Efficiency and Strategy

Beyond revenue concerns lies the issue of how healthcare IT can enable hospitals to see more patients in existing facilities. The University of Tennessee Medical Center in Knoxville has been able to address this concern with its AIMS system, Centricity™ Perioperative Anesthesia from GE Healthcare. Dr. Epps notes, “With the support of AIMS, we have a fast tracking system that greatly helps our patient recovery process which optimizes our patient throughput.”

2 “AIMS 2012: Cooperation is key.” KLAS Performance Report.
3 ITG Primary Research conducted for GE Healthcare, March 2013.
Value: Excelling in the New Regulatory Environment

In the healthcare environment, although value-based reimbursement is relatively new, regulatory changes have been unleashed that promise to create conditions for value-based care that will unfold over the next four to five years. A recent study by ITG Health found that by 2016, some 75% of health executives surveyed believed that they will have a moderate to a significant amount of revenue tied up in risk-based contracting. While hospital penalties are certainly new in some respects, they are just the beginning of a shifting clinical and financial landscape.

Increasingly, hospitals are being measured by national standards and benchmarks. AIMS facilitates data sharing with national research consortia such as the Multicenter Perioperative Outcomes Group (MPOG) through which UTMCK can measure its work against national benchmarks. Dr. Epps notes, “Our AIMS has been the main reason that we have gotten involved with MPOG which puts us in a totally different league.”

AIMS: Final Considerations

A hospital needs to ensure—especially with its largest revenue area—that it can identify and use an AIMS system with a strong track record. The AIMS must be adopted easily by users with minimal training time outside of the OR, configured according to clinical practices and specifications as they change, and interfaced seamlessly with other IT systems.

Focusing primarily on reducing the number of IT systems leading to adopting a non-proven AIMS could result in risks that put a ceiling on clinical optimization and could result in adopting a lowest-common denominator system for one of the most financially important departments for your hospital. Finding a good quality EHR to handle most hospital departments and adopting some outstanding healthcare IT systems to optimize clinical outcomes and value for the highest-revenue generating areas such as utilizing an AIMS system for anesthesiology and surgery promises to be a great strategy for optimal clinical and financial benefit.
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