Capitalize on Exceptional Surgical and Anesthesia Functionality and the Power of Enterprise Interoperability

A White Paper By:

Surgical Information Systems
Overview

Implementing the best available solution for the perioperative department is critical to achieving the true value of healthcare information technology. The power of surgical and anesthesia information can have the greatest impact on your organization, as it is the area where the most profit is generated, the most resources utilized, and where the most serious patient errors occur. Implementing the most effective technology in this department, while helping to ensure enterprise interoperability, enables organizations to truly realize the power of all of its IT solutions.

Integrating the surgical Electronic Health Record (EHR) into the global patient EHR is essential to help ensure a consistent clinical narrative. The adoption of new interoperability standards by the Health and Human Services Department makes this integration much more seamless. This allows hospitals to implement the best solution by care area regardless of the HIS platform, and further negates the need for a broad house-wide solution that offers minimum departmental functionality. This white paper will explore the importance of interoperability in integrating the critical surgery and anesthesia EHR into the global patient EHR.

The Importance of Surgical and Anesthesia Information

The entire surgical and anesthesia area is a major clinical, operational, and financial driver for every hospital. Data drives decisions and the decisions that are made in this environment are critical to both the health of the patient and the hospital. Surgery is a primary source of the most serious hospital-based errors, so it is essential that all surgical and anesthesia data be integrated into the information flow of the hospital, helping ensure the correct information is available at the right time and place. According to data from HFMA, today’s OR department is the economic engine of most hospitals – accounting for up to 70% of a hospital’s revenue and 35%-40% of the hospital’s expense. Moreover, 60% of the hospital’s margin typically comes from surgical procedures. Based on data from DJ Sullivan Healthcare Consulting’s database of 700+ OR’s, each empty, but available OR suite costs a hospital an estimated average of $1,000 per hour (including pre/postoperative staffing and anesthesiology costs).

Due to these facts, inefficiencies in surgical services invariably result in decreased quality of patient care, increases in medical errors, and a negative impact on the hospital’s bottom line. Hospitals using surgical and anesthesia IT have demonstrated both quality of care and financial improvements. Such improvements enable these organizations to decrease costs through better inventory control, increase revenues by automatically billing for OR supplies and providing complete billing information, and facilitate operational efficiencies through the use of analytical software applications.

Interoperability: The Communication Engine for Surgery and Anesthesia

Communication fuels our daily life. Information is communicated in a way that is meaningful to the receiver of the message and enables that individual to take action with the information provided. This communication is equally important when it comes to the exchange of information across technology systems in the health system. Because of the facts previously discussed, this is particularly necessary between your surgery and anesthesia information system and other hospital IT solutions, which is where interoperability comes into play.

Interoperability is the ability of two or more systems to exchange information and use that information to create actionable intelligence. Actionable information makes technology meaningful and enables solutions to support enhancing the care and service provided. Interoperability is valuable to you, and each individual working with you to improve healthcare.

Within the IT department, interoperability means standardized information transfer with standard structures and vocabularies. This simplifies interface setup and maintenance and reduces costs in this area. In addition, interoperability:

- Enables departments to select the best systems with the most advanced functionality for their needs
• Eliminates the need for expensive, hard-to-maintain architecture
• Provides a complete electronic record
• Enables effective transfer of the care record to another provider

For the hospital administration, the effective communication of information helps ensure charges are accurately captured and provided to the appropriate systems for accurate and efficient billing. In addition, reporting utilizing standardized data allows for easier cost and quality analysis. Interoperability also enables hospital administration to:

• Improve charge capture and reimbursement
• Participate in benchmarking and act on this data for performance improvement
• Demonstrate Meaningful Use to qualify for ARRA funding
• Securely maintain the care record and patient information to improve patient satisfaction

The clinical user also derives significant benefits from interoperability. With actionable information through communication across multiple hospital departments’ systems and devices, clinicians experience a unified desktop with single sign-on and single patient select. This improves clinician satisfaction, therefore speeding adoption rates. The clinician also experiences:

• Improved usability of the systems and increased satisfaction across the entire care team
• Reduced manual entry, resulting in greater efficiency and less opportunity for error
• Improved communication across the care team, supporting patient safety
• The ability to benchmark across departments

Providing the right information at the right time is critical for surgery and anesthesia teams to effectively care for the patient in this complex environment. Accurate details enable clinicians to perform the highest levels of quality care. Interoperability enables this documentation to be complete, accurate and instantly available when it is needed most.

Leading the Way

Partnering with SIS enables organizations to lead the way in interoperability – beginning with automating the most impactful department of your hospital, the perioperative department. Incorporating three levels of interoperability makes it possible for health systems to achieve the highest standards of complete information exchange. First, the SIS solution provides the technical interoperability necessary for the physical connection. Next, SIS solutions leverage open source development methods to allow syntactic interoperability and unified data structure. The solutions also employ semantic interoperability for use of standard vocabulary and data meaning to facilitate the level of communication needed to make the data actionable.

SIS is actively engaged in working with leading healthcare technology organizations to lead the way in developing and implementing interoperability standards. Participating with Integrating the Healthcare Enterprise (IHE) and the HIMSS Interoperability Showcase at the Leadership Level, SIS successfully completed the 2012 IHE Connectathon testing event. SIS is certified for one or more actors within the following IHE profiles:

- Alarm Communication Management (ACM)
- Audit Trail and Node Authentication (ATNA)
- Consistent Time (CT)
- Device Enterprise Communication (DEC)
- Patient Administration and Management (PAM)
- Patient Identifier Cross-Reference (PIX)
- Patient Demographics Consumer (PDC)
- Cross Enterprise Document Sharing (XDS.b)
- Exchange of Personal Health Record Content (XPHR, XDS-MS) (C32) for Content Creator and Content Consumer
Completing the Certified EHR with Surgery and Anesthesia

In addition to allowing the full exchange of critical information, interoperability between your surgery and anesthesia solution and other hospital systems facilitates completion of the full certified EHR for Meaningful Use. Compliance with both the Cross Enterprise Document Sharing (XDS.b) and Exchange of Personal Health Record Content (C32) for Content Creator and Content Consumer are required for Meaningful Use. SIS solutions are compliant with both standards and demonstrated this at the IHE Connectathon, verifying a valuable component of the SIS solutions’ Meaningful Use certification.

SIS Version 5 was the first surgery system certified to meet 2011/2012 Stage 1 Meaningful Use measures as a modular EHR, creating a complete EHR strategy with surgery and anesthesia automation.

Why is interoperability important in this context? It is important for multiple reasons. To begin, an organization needs interoperability so that clinicians and leaders can easily exchange key pieces of clinical data. Once exchanged, that data can be collected, aggregated, analyzed, and displayed in the desired format. Collectively, surgery and anesthesia IT generates a clinical data treasure trove that will be used to address many of the Meaningful Use reporting criteria required for incentive payments. This dual capability is critical to what makes for “Meaningful Use” in its most basic sense.

Given the multiple and diverse requirements for data collection, electronic ordering, and quality outcomes data reporting, it is imperative for healthcare leaders wanting to benefit from Meaningful Use to approach all these moving parts strategically. Leaders must establish an overarching vision and overall goals for their automation program, and then proceed thoughtfully to build in intelligent intermediate steps, in order to help ensure success along the way.

Surgery and anesthesia information is a critical part of this strategic vision. Visit SIS at booth #1339 to learn how you can make the greatest impact with the power of an integrated, advanced solution in surgery and anesthesia.

About SIS

Surgical Information Systems (SIS) provides software solutions that are uniquely designed to add value at every point of the perioperative process. Developed specifically for the complex surgical environment, all SIS solutions – including anesthesia – are architected on a single database and integrate easily with other hospital systems. SIS offers the only surgical scheduling system and the only anesthesia information management system endorsed by the American Hospital Association (AHA), and a rules-based charging system that has been granted Peer Reviewed status by the Healthcare Financial Management Association (HFMA). SIS is also the first AIMS provider to be designated as an AQI Preferred Vendor by the Anesthesia Quality Institute (AQI).

For more information visit our website, www.SISFirst.com or call 800-866-0656.