Meaningful use: What it means for ORs

Meaningful use is a much-used term in the push for electronic health records (EHRs). Eligible hospitals, critical access hospitals, and physicians can earn federal incentives for adopting and demonstrating “meaningful use” of certified EHR technology (sidebar).

Your hospital’s meaningful use discussions may be taking place away from the OR. But your leadership team needs to be tuned into meaningful use and how it affects surgical services.

“When you look at all of the meaningful use criteria, almost all impact perioperative patients. The OR draws a significant number of the patients where data has to be captured,” says Marion McCall, BBA, RN, CNOR, CPHIT, director of the Client Solutions Group for Surgical Information Systems (SIS), a perioperative software company.

Hospitals stand to reap millions in incentive payments by meeting the government’s health IT objectives. There’s also a penalty—after 2015, those that don’t demonstrate meaningful use will forfeit part of their Medicare reimbursement.

In a government survey, 81% of hospitals said they plan to achieve meaningful use and take advantage of the incentives, and 65% plan to enroll during Stage 1 in 2011-2012. Hospitals are focused on meeting the Stage 1 meaningful use criteria.

Requirements will ramp up with Stage 2 criteria, expected in Fall 2011, later than anticipated. There is talk that the Stage 2 criteria might be postponed for a year.

OR systems and meaningful use

To qualify for the incentives, hospitals have to be using technology certified by the government’s Office of the National Coordinator for Health IT, known as the ONC. Certification is intended to assure hospitals and physicians that the systems they adopt are capable of performing the required functions. (A list of certified systems is at http://onc-chpl.force.com/ehrcert.)

Whether your surgery department has an OR-specific system or uses software that is part of the hospitalwide information system, your organization will need to complete an assessment to see if certification for the OR system is necessary, McCall says. If certification is necessary, your organization will need to determine which level of certification is necessary and whether your current vendor offers that level of certification.

EHRs can be certified in 3 ways, explains Pat Wise, vice president of the Health Information Management Systems Society (HIMSS):

- **Complete EHR**: The hospital’s system has every functionality for meeting all meaningful use Stage 1 core measures and menu measures.
- **Modular EHR**: The EHR has modules that meet meaningful use criteria.
- **Site certification**: The hospital seeks a site certification, a solution for organizations that have developed their own EHRs.

The ONC recently issued an interpretation about certification of EHRs that have standalone, separate components, such as OR-specific information systems. But questions re-
What is meaningful use?

The federal government is providing incentive payments for the “meaningful use” of certified electronic health record (EHR) technology through the American Recovery and Reinvestment Act of 2009 (Recovery Act).

Incentives will be paid to eligible professionals (eg, physicians), eligible hospitals, and critical access hospitals that are “meaningful users” of certified EHR technology.

The Recovery Act specifies 3 components for meaningful use, including using a certified EHR:
• in a meaningful manner, such as e-prescribing
• for the electronic exchange of health information to improve the quality of health care
• to submit clinical quality and other measures.

Stage 1 criteria
Stage 1 criteria, which apply for 2011 and 2012, have 24 objectives for hospitals and critical access hospitals. To qualify for an incentive payment, 19 of the 24 must be met. These include:
• 14 core objectives
• 5 of 10 objectives from a menu.
There are also 15 clinical quality measures.

Beyond Stage 1
The government plans future rules with Stage 2 and 3 meaningful use criteria.

Stage 2
In general, Stage 2 criteria, proposed in January 2011, would increase the percentage of patients needed to meet specific criteria. It would also include new criteria for medication order tracking, electronic notes, and patient care plans, among others. The government may consider applying the criteria to hospital outpatient settings, not just the emergency department as in Stage 1. There also will be further requirements for use of health information exchanges.

Stage 2 criteria are expected to be issued in late 2011.

Stage 3
This stage would focus on achieving improvements in quality, safety and efficiency, focusing on decision support for national high-priority conditions, patient access to self-management tools, access to comprehensive patient data, and improving population health outcomes.


main about how these systems will affect the hospital’s overall certification. HIMSS and others are seeking further clarification.

In the future, it’s likely that OR and anesthesia information systems that provide for computerized provider order entry (CPOE) and patient documentation will have to be certified, says Wise.

No push for integration
So far, the OR hasn’t seen the same push as other departments to have their perioperative information system be from the same vendor as the hospital’s EHR, says Mark Allphin of KLAS Enterprises, a company that compiles independent ratings of health care software.

Though the lab, pharmacy, and emergency department systems seek to exchange clinical information with a hospital’s EHR, OR systems have a greater need to exchange information with the materials management and patient financial systems, he notes.

For that reason, he says vendors of OR-specific systems continue to play a major role in the perioperative setting. Examples are GE Healthcare, Picis, and SIS. In the next few years, however, KLAS expects many users to shift to a surgery system that is part of a larger software suite, such as Cerner, Epic, or Meditech.
Meaningful use: How ORs can benefit from EHR push

Electronic health records are expensive, resource intensive, and often painful to implement. But making the push promises benefits, not only for surgical patients but for the OR’s operational and financial health. Two nurse IS specialists with perioperative backgrounds talk about the prospects.

Access to clinical data
Better information about patients will be a click or two away. Rather than chasing faxes, preop nurses eventually will be able to retrieve information electronically from physicians’ offices, clinics, and labs.

“The ease of access to data on a patient should help in getting patients prepared for surgery in a more timely and efficient manner,” says Sheryl Johnson, RN-BC, MSHA, a former OR manager and deputy chief information officer for SwedishAmerican Health System, Rockford, Illinois.

For Stage 1 of meaningful use, hospitals need to test data exchange with one external entity, such as a clinic or physicians’ office. That’s expected to expand in Stages 2 and 3.

Safer medication use
Ordering and giving medications will be safer as EHRs provide cross checks for correct dosages, allergies, and drug interactions. Eventually, EHRs will provide access to a patient’s medication history, including meds ordered by other specialists and taken at home.

An issue for OR directors to think about is whether ORs will be expected to have electronic verification of medications given during surgery, similar to the bar-coding systems now used on patient units, and how that will be accomplished, Johnson notes.

More reliable handoffs
Once clinical IT systems become more integrated, better access to patient data will make handoffs safer and more reliable.

For example, when a patient comes to surgery from the emergency department, “having all of that information in an electronic format will make the handover process easier for nurses—though I’m not saying it replaces a verbal handover,” says Deborah Tuke Bahlman, MS, RN, regional manager, Epic OpTime/Anesthesia, for the Oregon Region of Providence Health & Services based in Portland.

Clinical quality reporting
ORs, hospitals, and health care as a whole will have better information on patient care processes and outcomes. That promises to help in managing patients’ conditions, learning about effective treatments from large databases, and improving quality not only for individuals but populations. Hospitals will be able to participate in registries, such as the American College of Surgeons’ National Surgical Quality Improvement Program (NSQIP).

In Stage 1, hospitals are expected to report electronically on 15 clinical quality measures, a list that is expected to grow.

“You need to consider what the next steps are,” advises Bahlman. “If you’re on paper, you need to get to an EHR. It just makes sense from a quality measures perspective to [be able to] have built-in decision support and best practices.”

Meaningful use and the OR
Here’s a look at some of the Stage 1 meaningful use objectives and how they affect perioperative services. The objectives are paraphrased. A grid with all of the objectives is at http://healthit.hhs.gov/media/MU/n508/MU_SCC_CombinedGrid.pdf

Computerized provider order entry
Stage 1: More than 30% of unique admitted patients with at least one medication in their medication list have at least one medication order entered using CPOE.

Whether this objective affects the OR depends on whether the hospital counts computerized physician orders entered in the OR or anesthesia information system toward the 30% needed for meaningful use. Currently, that does not seem to be necessary, McCall notes. But, she adds, as the percentage increases in future phases of meaningful use, it’s likely that the perioperative patient population will
Drug-drug and drug-allergy interaction checks

Stage 1: The hospital has enabled this functionality for the entire EHR reporting period.

OR directors need to understand where the allergy and drug information will be maintained and how that is managed in the OR system, McCall suggests. Whether you are using an enterprise vendor or an OR-specific vendor, she says it’s important to assess if the vendor can import this data from the main clinical system and have nurses be able to act upon it throughout the perioperative continuum.

Patient demographics

Stage 1: More than 50% of all unique patients admitted have [certain] demographics recorded as structured data. (Applies to at least one entry for 80% of unique admitted patients.)

Most software vendors do this well, McCall notes. She advises perioperative leaders to assess if they are taking advantage of the admission, discharge, and transfer (ADT) data via an electronic interface to avoid potential errors from manual data entry.

Medication list

Stage 1: Maintain an active medication list. (Applies to at least one entry for 80% of unique admitted patients, or an indication the patient currently is not prescribed any medication.)

Many facilities still have gaps in how patients’ medication information flows through the electronic record system, McCall says.

An area for OR leaders to consider is the medications on physicians’ preference lists administered during surgery and how that data is entered in the patient’s active medication list. She says there’s still uncertainty about whether medications delivered in the OR by physicians or on the sterile field require surgeon-generated computerized entry.

“How do we streamline this process and not hamper the perioperative workflow while making sure we have a complete medication list?” she asks.

Another missing piece is capturing for the EHR medications that are given by anesthesia, which has been slow to automate.

Medication-allergy list

Stage 1: Maintain active medication allergy list. (At least 80% of admitted unique patients have at least one entry or indication the patient has no known medication.)

Tracking medication allergies “is pretty seamless, whether it’s an enterprise vendor or a niche vendor, using standard interfacing,” McCall notes.

But ask how the list is being updated, she suggests. How can perioperative nurses make sure the allergy list is updated if they capture information about an allergy or see changes in a patient’s allergy status? Is that allergy information consistently shared through the care continuum?

Vital signs

Stage 1: For more than 50% of unique admitted patients age 2 and over, height, weight, and blood pressure are recorded as structured data.

For the OR, understand how vital signs for surgical patients are captured from monitors and placed in the patient record, McCall advises. “Many of the vendors do this well, and it offers a great workflow enhancement for the perioperative documentation process.”

She suggests making sure the OR’s monitors have the appropriate drivers and accurate information is being transmitted to the record. It’s also important to make sure nurses understand how to validate the information and are comfortable making changes when necessary.
**Record smoking status**

**Stage 1:** More than 50% of all unique admitted patients 13 or older have smoking status reported.

“It’s easy to capture the data because it can be added to the assessment tool,” McCall says. “You need to make sure it’s reportable and able to be captured for everyone. Some of the current niche and enterprise systems struggle to provide user-friendly data extraction and analytics tools.”

**Problem list**

**Stage 1:** Maintain an up-to-date problem list of current and active diagnoses. (Applies to at least one entry for 80% of unique admitted patients, or an indication that no problems are known.)

“Almost all vendors can do this, whether they’re a niche vendor or enterprise vendor,” McCall says.

Questions to ask: How is the patient’s problem list made available in the OR? Is the data shared by the physician or hospital system, or does it require manual entry by the perioperative staff? How is it updated? If additional diagnoses and comorbidities are identified during the preadmission testing phase, how are those reflected in the EHR?

A complete set of diagnoses is important not only for patient care but also for accurate billing and reimbursement, she points out.

**Report clinical quality measures**

**Stage 1:** Report quality measures to the Centers for Medicare and Medicaid Services or the state.

For Stage 1 meaningful use, hospitals must report on 15 clinical quality measures, which pertain to the:
• emergency department (2 measures)
• stroke (7 measures)
• venous thromboembolism (VTE) prophylaxis (6 measures).

Two of the VTE measures refer directly to surgery:
• VTE-1: VTE prophylaxis within 24 hours of arrival, including after surgery for patients on the day of or day after admission
• VTE-2: Intensive care unit VTE prophylaxis, which includes surgical patients.

**Capability to exchange key clinical information**

**Stage 1:** Perform at least one test.

A question for OR leaders to ask, McCall suggests is: Can your perioperative information system exchange key information, either by electronic data or in a PDF format? The hospital needs to test an exchange with an external entity, such as a clinic or physician’s office.

**Electronic copy of discharge instructions**

**Stage 1:** More than 50% of inpatients discharged who request an electronic copy of their discharge instructions are provided it.

Questions to ask, suggests McCall: What discharge information and instructions are being given to surgical inpatients at discharge? How does this compare to information given to outpatients? Is there a comparable standard of care?

**Privacy/security**
**Stage 1**: Protect electronic health information created or maintained by the certified EHR technology.

One area to check: How often are surgeons and others walking out of your facility with patient information on CDs, flash drives, or other media?

“OR directors need to understand and control the patient information that is leaving the facility,” McCall advises.

An approach some are recommending, she says, is to store patient images such as videos in the hospital’s picture archiving and communication system (PACS). Then physicians can review the images electronically through the PACS system rather than carrying them out the door without security controls. Patients who are provided with their own electronic health information should receive it in a secure form, for example, with user ID and password protection.

**Stage 1 menu items**

In addition to the 14 core meaningful use objectives for Stage 1, hospitals must pick 5 more from a menu of 10. Many of these also touch on perioperative services. Examples are:

- implementing drug formulary checks
- incorporating patient lab data into the EHR
- medication reconciliation
- generating lists of patients by specific conditions to use for quality improvement and other efforts.

Though a hospital’s road to a comprehensive EHR may be an arduous one, it’s widely agreed that the government’s health IT effort is journey toward more comprehensive and useful electronic records, and one would hope, safer and better care for patients.

—Pat Patterson