OR automation

A report card on OR information systems

The report card for OR information systems is out. Users gave their systems scores that were a little higher in 2007 than in 2005. Leading the pack was USA, with Meditech in second place and McKesson Horizon in third. The average overall score was 77.4 out of 100.

The scores are from KLAS Enterprise's report on surgery management systems, published every 2 years. The report captures how OR clinicians and hospital IT specialists think their OR software is performing.

Rankings have shifted, with Meditech moving from third to second place, and McKesson jumping from seventh to third. USA was first both times.

OR software gets lower scores than health care IT products in general, says Jason Hess of KLAS, but the gap is narrowing.

The scores don't necessarily correspond with how robust implementations are at client sites, Hess cautions. The lowest scoring vendors for OR systems, such as GE and SIS, have some of the highest percentages of modules implemented. On the other hand, top scorer USA has the lowest percentage of modules implemented, with only 47% of customers live on nursing documentation, for example. That compares with 96% for SIS and 95% for Cerner. USA currently has 11 installations for its perioperative system and 15 for its OR schedule module, or less than 1% of the market, according to HIMSS Analytics, a unit of the Healthcare Information and Management Systems Society.

More modules live

ORs have more modules live than in 2005.

Nearly all participants (92%) are live with OR scheduling, and 84% use online nursing documentation. The biggest gains were in materials management and nursing documentation. All of the vendors saw gains of more than 10% in materials management implementations except Cerner, McKesson, and USA.

Still a missing piece—interfaces and integration, with 64% saying they lack essential interfaced data. The interface gap varies by vendor. Only about one-fourth of Cerner and GE users reported needing interfaced data (26% and 28%), compared with 43% for Meditech and 52% for SIS.

About a third, 36%, said no pieces were missing. But the meaning of "integration" may be limited, Hess notes.

"When we ask in interviews, 'Is a nurse on a med-surg floor able to go into the electronic record and see information from the OR?' some will say, 'I hadn't thought about that.'

"In one interview, an OR manager said the server for the OR system was under her desk. It was very much a stand-alone system. But when I asked her what interfaced information was missing, she said, 'Nothing.'"
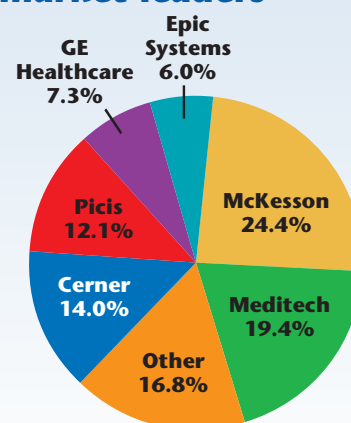
Anesthesia documentation slow to catch on

Very few—5%—have implemented anesthesia documentation.

"It's surprising how little the needle has moved on anesthesia documentation," says Hess. "When I talk to vendors, almost all tell me they are asked about anesthesia documentation in RFPs and RFIs. But we weren't able to document much of an increase in 2007 compared with 2005."

Among the challenges—getting anesthesia providers to embrace the technology and getting the anesthesia module to interface with the surgery management system.

Perioperative system market leaders

GE Healthcare 7.3%
Epic Systems 6.0%
McKesson 24.4%
Meditech 19.4%
Other 16.8%
Cerner 14.0%
Picis 12.1%

Source: HIMSS™ Analytics Database (derived from Dorenfest IHDS+ Database™).

KLAS overall performance scores

Vendor	2007 score (out of 100)	2005 rank
1. USA	89.1	1
2. Meditech C/S	82.0	3
3. McKesson Horizon	78.1	7
4. Picis	77.5	4
5. Cerner	76.5	5
6. SIS	71.9	6
7. Mediware	70.2	9
8. GE	70.0	8
*CQI	86.4	
*Epic	85.5	
*McKesson ORSOS (Per-Se)	85.4	
Overall average	**77.4**	

Does not meet minimum KLAS standards for statistical confidence or is not the currently marketed product.

Source: KLAS Enterprises, 2007. Reprinted with permission.

Some users told KLAS they found the anesthesia products were immature, didn't match their work flow well, or were difficult to interface with the hospital's electronic health record.

A mature market

OR software is a mature market, and those looking to purchase new systems are mainly seeking a replacement for their current system. In making a decision, there are 2 camps, notes Hess—chief information officers (CIOs) tend to favor enterprisewide systems, but clinicians often prefer a department-specific system based on their needs.

"CIOs say they like the information of going with a system that has a single database like a Cerner or a Meditech," says Hess. "Then they don't have to worry about having to create interfaces to get a niche system to talk to the core system.

"But when you talk to the clinical folks in the OR and ask how the enterprisewide system works for surgery and their workflow, those vendors sometimes score lower."

Market changes

There have been a few changes in the players. PerSe ORSOS, acquired by McKesson in 2007, is no longer being marketed. McKesson will continue to support ORSOS, but McKesson's Horizon Surgical Manager will be the company's surgery management product going forward, Hess notes. McKesson has also partnered with Docusys to further develop its anesthesia documentation software.

Epic has been coming up fast, with about 6% of the market, according to HIMSS Analytics. KLAS validated 14 organizations live on Epic OpTime, its OR product, less than the 15 KLAS requires to include a system in the main body of its report. Users give Epic high marks for the quality of its code and the ability to customize its products, Hess notes. But they say OpTime needs to mature and to better match clinicians' workflow. The company also needs to better monitor its turnover and lack of experience with support and implementation staff, KLAS found in interviews.

USA and Mediware announced in October that Mediware will transition its OR

PNDS impact on organization
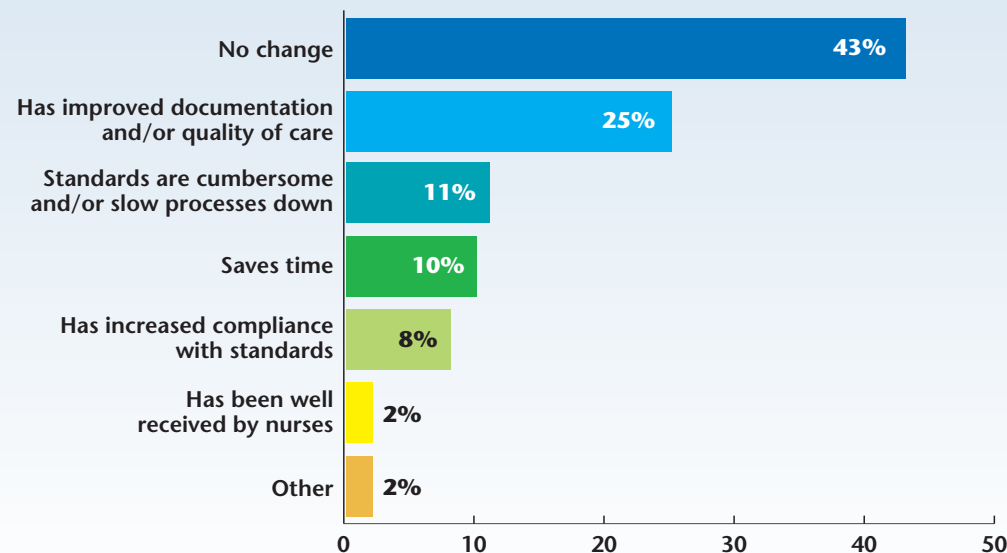
Source: KLAS Enterprises, 2007. Reprinted with permission. N = 61.
PNDS (AORN's Perioperative Nursing Data Set)

system customers to USA's ORMS software. Mediware will focus instead on blood and medication management.

Surgical Information Systems (SIS), bought out by a private equity firm in 2006, brought in a new CEO, Edward R. Daihl, in 2007. GE Centricity, which has struggled, also has new leadership for Centricity Perioperative.

Progress on PNDS

About 40% of participants are using AORN's standard nursing language PNDS (Perioper-ative Nursing Data Set). Cerner is the leader, with 70% of its users saying they have adopted PNDS. Other vendors reported 30% to 50% adoption. This is the first time KLAS has asked about PNDS.

In interviews with KLAS, users gave PNDS mixed reviews.

"PNDS has been great for our nurses. It is a real time saver," said one. Another said PNDS had streamlined standards for the nursing staff. "The plan of care policy now includes every standard that is considered to apply to every case. Then the nurses have to add only standards unique to a patient," this person said.

Said another: "We put the data out there and let the nurses click the one they want. It is sweet, and the nurses love it."

Some found it cumbersome. "They are very lengthy," one noted. Another commented that the way PNDS was set up in their software "makes nurses angry because it takes 6 screens to click through the standards."

One person noted that when the state department of health came in recently for a review, "it was beneficial to be using the PNDS."

How study was done

The KLAS Surgery Management report is based on data submitted to KLAS by users of OR systems plus interviews with 463 users to validate the data and collect more in-depth feedback. Of those interviewed, 44% were IT managers or directors, 31% were OR managers or directors, and the rest were other types of clinicians and administrators.

Organizations that contribute data to KLAS and are interviewed for the special report receive a free summary of the study. Others can purchase the report. ❖

More information is on the KLAS website at www.healthcomputing.com.