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Devices & technology

CheckSite System Promotes Safety in the Perioperative Setting

By Christina Orlovsky, senior writer

Miscommunication at the handoff of patients going between the preoperative setting and the operating room is one known culprit of costly medical error. In an effort to bridge the communication gap between perioperative clinicians, CheckSite Medical has created a simple, yet high-tech, device to enforce surgical-site marking and reduce wrong-site surgeries: an ID bracelet.

The CheckSite ID Bracelet is embedded with a miniscule radio frequency identification (RFID) chip that is linked to a sensor in the hallway between the preoperative area and the operating suite. The chip will trigger an alarm if patient-safety protocol is not completed.

The system also consists of a marker pen and a sticker that deactivates the sensor. Once a clinician marks a patient's surgical site, for example, he or she removes the sticker from the pen and places it on the bracelet, letting other clinicians know that step has been completed and deactivating the sensor in the hallway.

CheckSite can be used to enforce other perioperative processes including confirmation of a current or updated history and physical, confirmation that the informed consent process has been completed, confirmation of a preoperative nurse to OR nurse patient handoff or confirmation of all of the above.

"Our aim is to facilitate better, or more consistent, communication between the preoperative nurse and the OR nurse," explained Stephen Chole, president of St. Louis, Missouri-based CheckSite Medical.

"Both clinicians are responsible for making sure the proper pre-op steps are completed, but what we have found is that because of the busyness of the OR, it can be difficult to be consistent in getting the pre-op steps completed," Chole continued. "The ones we focus on are safety-related—the big hitters as far as the pre-op process is concerned. Our system ensures nurses agree on the items being completed before the patient is rolled into the OR. Once the patient is in the OR, the train is running and it's hard to slow it down. Problems are best corrected in the preoperative setting."

Launched in late 2005 and first used at Barnes-Jewish Hospital, in St. Louis, the CheckSite System is currently in place in more than a dozen hospitals nationwide and has been used with roughly 150,000 patients. The system costs about \$3 per patient. Chole said feedback has been positive and more hospitals continue to express interest.

"Of the hospitals that have used the system, there have been no wrong-site surgeries or near misses," he said. "The feedback has been outstanding. People in the OR have the best intentions, but human nature alone is not 100 percent. This provides a fail-safe for clinicians if they happen to overlook something and it reminds them to get those things done."

For more information, visit the [CheckSite Medical](#) Web site.

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