

RFID Cabinet Manages Medicine

An RFID-enabled cabinet developed for hospitals can automatically track when medical equipment and pharmaceuticals are removed, and by whom.

By Jonathan Collins

Aug. 12, 2004—Hospital supply chain automation specialist Omnicell has been showing a prototype of its RFID-enabled version of its OptiFlex medicine and equipment cabinet. The RFID-enabled cabinet can automatically record when items are removed and which hospital personnel has taken them and connect with replenishment systems to ensure each item is always available.

“The OptiFlex prototype shows how cabinets can control and be aware of the items within the cabinet,” says Barbara Norris, OptiFlex product manager at Omnicell, which is based in Mountain View, Calif.

The unit would be part of a system that would replace the bar code labels currently found on items. At present, nurses have to scan the bar code labels of each item removed from the cabinet to register its use.

According to Omnicell, it is a process that can often get overlooked by busy nurses, especially as some items may have several bar codes to scan. This is because bar codes do not uniquely identify a single item; therefore, different barcodes can be required for the batch or lot number as well as the product number.

RFID would provide the ability to identify each individual item, which would also bring another benefit. That ability could be used to ensure that medication available in the cabinet was still within the recommended use-by date—something that is difficult to trace with bar-coded medicines. “Out-of-date medicine is currently a huge issue. Medicine expiration dates are hardly dealt with, and when they are, it has to be done visually, with the nurse checking each label,” says Norris.

According to the company, if nurses wear RFID tags and all items in the cabinet are tagged, the supply chain can automatically register which drugs have been taken from the cabinet, and by which nurse. The company says that if patients also wear RFID tags, those items can also be linked automatically to the patient that they are for.

The prototype cabinet uses UHF readers and tags from Matrics, but Omnicell says the OptiFlex system will work with hardware from a number of RFID vendors.

Unveiled in Nashville, Tenn., at the 42nd annual conference and exhibition of the Association of Healthcare Resource and Materials Management (AHRMM), Omnicell’s RFID-enabled cabinet stands about 6 1/2 feet tall and 4 1/2 feet wide. The AHRMM conference draws materials managers, who oversee the purchase and distribution of medical equipment and medicine at healthcare facilities around the nation. The company maintains that even though pharmaceutical drugs currently ship without RFID tags and hospitals would have to apply a tag to every item stored in the cabinet, the show’s attendees seemed to perceive real benefits in deploying RFID-enabled cabinets.

“When we told materials managers they would have to apply tags to each item, they didn’t even blink,” says

Norris, who adds that Omnicell will be kicking off its pilot program early next year. "We plan to partner with a number of strategic customers as we deploy our solution in a live environment."

Omnicell isn't the only company to offer hospitals a way to use RFID to track individual containers of pharmaceutical drugs. In May, for example, Exavera Technologies unveiled its eShepherd system, which combines RFID and Wi-Fi technology (see [RFID Remedy for Medical Errors](#)). In addition, the U.S. Food and Drug Administration issued a report in February that recommended the use of RFID as a way to combat the counterfeiting of pharmaceutical drugs (see [FDA Endorses RFID Technology](#)).

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