Pfizer's RFID Pilot Is the Start of Something Big

So far, the company has tagged 2.1 million bottles of Viagra, and it plans to continue this effort in 2007.

By Claire Swedberg

Oct. 2, 2006—Pfizer, which began shipping RFID-tagged bottles of Viagra for U.S. distribution last December, is looking to the future use of RFID technology throughout the pharmaceutical supply chain. As the company approaches the one-year mark of its pilot program, McKesson, HD Smith and other wholesalers have completed 200,000 authentications of both item- and case-level tags. Of those, only 19 tags were found to be "dead" after leaving the facility, according to Peggy Staver, director of product integrity at Pfizer.

Staver told an audience at the RFID Journal Industry Summits conference in Chicago last week that Pfizer began its initiative to tag all Viagra products at the item level in January 2005, using 13.56 MHz HF tags, with 915 MHz UHF tags attached to cases and pallets (see Pfizer Using RFID to Fight Fake Viagra). A "parent-child hierarchy" strategy links each item-level tag to the carton and pallet on which it is shipped. Staver says Pfizer has tagged 2.1 million bottles as of early September, and has shipped 1.4 million of them. Not all tags are authenticated—in some cases, only case or pallet tags are read, and many products are shipped to wholesalers and retailers that do not use RFID technology. "More product will be shipped during the remainder of 2006," Staver promised, adding, "We also plan to continue shipping tagged Viagra in 2007.

Counterfeiting of drugs, especially Viagra, has long been a global issue, and counterfeiters are becoming increasingly sophisticated, Staver explained at the conference. Pfizer's RFID initiative aims to combat that obstacle. Each tag includes an EPC serial number, but item-level tags do not include the National Drug Code (NDC) number, a universal product identifier for human drugs. "We chose not to include the NDC for privacy and security reasons," Staver said. This precludes someone trying to use a rogue reader to identify the type of medication in a truck en route to a distribution center. The labels also include 2D bar-coding as a backup for tracing each item through the supply chain. Pfizer uses software from SupplyScape, which makes such authentication products as RXAuthentication and RXCertificates.

Pfizer, so far, has spent $5 million on its Viagra implementation. Before it proceeds to RFID tagging on a larger scale, it wants to see mass acceptance of the technology and standards. "Retailers still say this needs to be an ROI-defining value proposition. I believe that's a barrier," Staver said.

According to Staver, Pfizer is interested in gaining more RFID partners to pilot the technology, especially in the hospital industry, where participation has lagged. "As part of the EPCglobal effort to establish standards for the use of RFID, a very concerted effort has been made to attract hospital participation in the process and understand the business requirements in a hospital setting," she stated.

Staver acknowledged that there are always more reasons to wait to deploy an emerging technology, adding, "but if you're interested in moving toward RFID, you have to take some risk. We know we need to continue to expand our RFID knowledge." On its own, she noted, Pfizer can't assure a transparent, safe and secure supply chain. "This isn't something we can do alone, without the participation of supply-chain partners." Staver

predicted that new initiatives, regulatory requirements, FDA guidelines and standards development will continue to drive RFID forward.

Pfizer's current philosophy is that high-risk items, such as its more expensive or frequently counterfeited medications, should each have item-level RFID tags and possibly bar-code backup. Products of more moderate value may or may not require RFID tagging, Staver said.

In the future, Pfizer intends to move to EPC Gen 2 UHF case-level tags and take steps to facilitate future migration to the EPC HF Gen 2 standard now being developed by EPCglobal. As a result of its Viagra pilot, Pfizer intends to reassess the placement location of tags on cases to improve read rates, pilot an e-pedigree solution and address exception-handling issues. As it does now, the company will continue to include a notice on each Viagra bottle that an RFID tag has been affixed to it.