

Purdue Moving OxyContin RFID Pilot to Full Production

By midyear, the drugmaker plans to roll out a full-scale implementation, after which every bottle and case of the painkiller will carry an EPC Gen 2 tag.

By Mary Catherine O'Connor

Feb. 13, 2007—Having carried out a three-year pilot program to place RFID tags on bottles of the painkiller OxyContin, prescription drug manufacturer [Purdue Pharma](#) says it plans to roll out a full-scale implementation, tagging every bottle and case of the drug that it produces.

When it first began its pilot in November 2004, the company tagged bottles of OxyContin at its Wilson, N.C., manufacturing plant bound only for [Wal-Mart](#) and drug wholesaler [H.D. Smith](#) (see [Purdue Pharma Tags OxyContin](#)).

The company has announced plans to migrate from the Symbol EPC Class 0 passive UHF inlays it currently uses to EPC Gen 2 passive UHF inlays containing [Impinj's](#) Monza Gen 2 chip. This transition will take place during the second quarter of 2007, with Purdue sourcing the Gen 2 tags from both [Motorola's Enterprise Mobility Business](#) division (formerly Symbol Technologies) and [Omron](#). It will also use the Speedway fixed-position interrogator, made by Impinj and distributed by [ADT](#), to read and verify the tagged bottles.

According to Harry Ramsey, Purdue's senior package development engineer, the firm will continue to have its label-converting provider, [George Schmitt & Co.](#), pre-encode an EPC to each tag, rather than bringing the encoding responsibilities in-house.

EPC Gen 2 tags can be encoded and read more quickly than the EPC Class 0 tags Purdue currently uses. However, the drugmaker does not expect the switch to Gen 2 to result in a noticeable improvement in read rates for tagged bottles moving through the packaging line at a rate of roughly 120 bottles per minute. The drugmaker, Ramsey explains, already achieves good readability from the current Class 0 tags during this step.

Other processes in the packaging line, Ramsey notes, prohibit bottles from being moved through the line more quickly than the 120-per-minute rate. For bottles aggregated into groups of 48 to be placed into cases, however, Purdue can read each group's tags an average of only 80 percent of the time. This means 20 percent of the 48-bottle groups need to be redirected and read again. In tests of the Gen 2 inlays with Impinj chips, he says, Purdue has consistently seen 100 percent successful reads of these 48-tag groups.

Once the bottles are labeled, the interrogators will collect the tag data at multiple points along the packaging line, passing it on to software made by [Systech International](#), a manufacturer of automated packaging systems. This software, called Advisor, will ensure that each EPC collected is unique and valid for a bottle of OxyContin. As the bottles are aggregated into groups of 48 for casing, Advisor collects the EPCs once more to ensure that each bottle in the group (and each associated EPC) is being cased for the first and only time. Purdue will also apply an EPC Gen 2 RFID label to every case of OxyContin; to date, it has been tagging only

at the item level.

All tag data collected from the Advisor software, which will run on two separate packaging lines, will be sent to Systech's Guardian software, which will act as a repository for all tag data. According to Stephen Lisa, director of packaging execution systems for Systech International, an e-pedigree platform could pull this tag data from the Guardian software and use it to establish a chain of custody of drugs as they move through the supply chain.

RELATED_ARTICLES In 2005, Purdue conducted a three-month proof-of-concept pilot to evaluate an e-pedigree platform based on [SupplyScape's](#) e-pedigree software (see [Purdue Pharma to Run Pedigree Pilot](#)). That pilot involved RFID tag data collected from the EPC Class 0 tags. Currently, however, the company is not using an RFID-based e-pedigree platform. Some states now require drugmakers and distributors to keep electronic pedigree records of drugs, but they can use bar codes to serialize the products if they prefer.

"Moving forward, as we implement the Gen 2 technology," says James Heins, Purdue Pharma's senior director of public affairs, "we hope to leverage a platform with the basic level of interoperability and performance needed to achieve a production-scale, RFID-based pedigree solution."

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