

RFID Could Enhance Pharmaceutical Marketing

Tagging product samples will increase control, boost marketing efficiency and reduce drugmakers' liabilities.

By James McQuivey and Michael Feehan

Mar. 14, 2005—The pharmaceutical industry is poised to benefit from [RFID](#). Much has been written about Pfizer's intent to employ RFID in Viagra packaging by the end of this year as well, as Purdue Pharma's tagging of individual bottles of OxyContin. But there's much more RFID can do for pharma. A prime example is applying the technology at the point where the drug rep, doctor and patient converge—the delivery of free samples to patients.

Samples allow your doctor the freedom to test the drug's suitability for you. For the indigent, medication samples can frequently become a lifeline. For the drugmaker, samples serve as effective vectors through which to build brand awareness and patient and physician loyalty. Critically, samples serve as a lever with which the drug company buys time with a physician to deliver product, public health and marketing information.



However, the benefits of sample marketing can be hard to pin down because once a sample leaves the drug rep's hands, it goes into a sample closet, where the rep loses contact with it. Medical practices increasingly employ rep-management strategies to limit reps' access to sample closets and busy physicians. As a result, drugmakers can be restricted in knowing how quickly the samples get used, whether they are being used properly, how directly they lead to increased prescriptions, the volume of competitive medications in the same closet, and whether patients may still receive drugs that have been recalled by the FDA or are out-of-date.

While visibility in the sample closet is the ultimate goal, drugmakers face significant challenges in the distribution of samples from the manufacturing site to patients' hands. Each sample moves from a manufacturer, to storage, to the drug rep's trunk and to the medical practice, where it finally lands on a closet shelf. Along the way, the sample's packaging can change from the gross pallet level, down through cartons, boxes, packs and individual bottles. Identifying the proper samples in the proper quantities along this path is the perennial challenge for every rep. Estimating what may be needed by any one practice, then stocking and tracking what is left in the trunk before moving to the next medical office can be an error-prone, time-consuming, and frustrating process.

Bar coding is one solution--Eli Lilly is now bar coding individual vials of insulin, for example. However, to be useful, bar codes have to be visible to the [scanner](#) that reads them. From trunk to closet, this is a job for RFID. Although RFID was originally employed in fully controlled environments where efficiency was the primary benefit, it is increasingly being implemented in semi-controlled environments where information about the flow of valuable assets is as important as gains in efficiency.



Here's how it will work. A leading pharma company will offer to install a [reader](#) in the closet at a medical facility. Through a modem and phone line or over the office's IP network, the reader will regularly report the contents of the closet or the type and quantity of tagged samples that have crossed the closet threshold since the last report. This small burst of data will feed into a database at the pharma's headquarters so the company will have a near-real-time profile of how rapidly specific samples are used.

Of course this means the samples will need to be tagged at the item level, not a cheap prospect when you consider that enormous number of samples that are in closets around the country at any moment. However, for drug samples that can cost anything from tens to hundreds of dollars for a month's supply, or where drugs are at serious risk of employee theft ("Has anyone seen the Viagra samples that were here just yesterday?"), the cost will be worth it. Especially when you consider that \$21 billion was spent on pharmaceutical promotion in 2002 by all pharmaceutical manufacturers (according to pharmaceutical market researcher [IMS Health](#)), of which \$12 billion was for these types of samples, an increase from \$7.9 billion in 2000. RFID can keep that cost from rising higher, which is why we believe the pharma industry will bear the cost. Here's how it will help:

It makes drug reps more effective. With a portable reader in hand, reps could [read](#) the contents of their own trunks (and storage lockers), to know exactly what they have with them. If tags are configured to communicate expiration dates, reps will even know if any samples they carry need to be retired. All of this also means that when they show up at the doctor's office, they will be welcome guests because they will carry the amount of samples the office really needs. As an added bonus, their job satisfaction rises.

The marketing knowledge derived will make drugmakers smarter. Currently, when a rep asks if the office needs more of a particular sample, the rep may be told no, but he or she won't know if it's because there is plenty left, or because the office just doesn't think much of the medication, or even think much of that particular rep. Seeing flow rates will help marketers understand whether doctors believe in the drug and help them estimate how many patients have tried the drug. Armed with prescription-fill statistics that come in later, they'll even be able to better analyze the sample-to-prescription conversion rate by geography.

It creates an insulation layer against liability. Hardly a day goes by without yet another manufacturer having to defend the safety of FDA-approved medications or potentially remove that product from the market. Whether a cholesterol-lowering statin like Baycol or a pain-reliever like Vioxx, these and other widely touted drugs have been pulled from pharmacies, and doctors have been advised against further prescription. But the sample closet does not automatically comply with FDA recommendations. A patient, perhaps indigent, who has been receiving samples of a suspect medication that are not entered into his or her records and who experiences an adverse event may one day be a claimant in a class-action suit. The potential liability makes the closet a multimillion-dollar lawsuit waiting to happen. Even drugs that have not fallen out of favor will eventually expire. Just the combined liability of the physician and the pharma company justify the outlay.

Though resistant to perceived manipulation by pharma companies, we believe physicians will let drugmakers into the closet because they need help administering it. Many closets are poorly maintained and have no inventory control. Some doctors in a practice use samples more than others, and with no way to track the flow, it's impossible for a practice to enforce standards for sample distribution. An RFID system would solve this problem by generating reports of how much leaves the closet and when. These reports would be useful not just for the pharma company but also for the practice. Plus, it streamlines the ordering process because target inventories can be set so the drug rep is notified automatically of the need for more supply. Add the doctors' liability to the mix and there is ample room for doctors to sit at the negotiating table with pharma companies.

The devil, as they say, will be in the details. Technology specs and costs will drive decisions about how big a practice has to be to get a reader installed. The use of portable readers by drug reps can help a medical practice to ultimately see the value of such data. Once a practice takes the initiative to allow RFID-enabled sample tracking, the rep can inventory the closet with a pass of the portable reader, jump-starting the process of RFID adoption.

That makes sample tagging the first step toward RFID-enabled tracking. Pharma companies will **tag** the most obvious candidates first, based on answers to three simple questions: (1) Is it an expensive drug; (2) does its loss or theft incur liability; and (3) how important to production and marketing decisions is the near real-time information about sample consumption? Once tagging is achieved, the industry is just a one-year trial and a two-year implementation **phase** away from full-scale RFID sample tracking. The real question is: Is there a reason to move first? Yes: Whoever gets the reader in the closet first will have set a standard for how tags will be encoded and read. They will have a monopoly on the potential flow of information from the closet out to the marketing department. Expect the biggest pharmas to be the first to consider implementing RFID for samples. If they do not have the internal will to see it through, a second path is a consortium approach, an information- and technology-sharing cooperative in which drugmakers agree to a standard for tagging and reporting data about the closet.

Will it be worth the hassle? As with most RFID implementations, the benefits are obvious to the people who control the assets and the environments they move through. In this case, that's the manufacturers and the doctors. But the real value of the system is for the people who stand at the end of the improved distribution channel: consumers, in this case, patients, who will get the samples they need when they need them most, as well as reigned-in drug costs because drugmakers will make better production and marketing decisions. Care to join us in the closet?

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