

## I've been thinking...



Beyond the Bedside  
November 2007

**I've been thinking** about parents, Plymouths, pills, and packaging.

My dad's the Zen master of documentation. A few months ago when he turned in his car keys (at age 85), there in the glove box we found the little spiral notebook in which he had faithfully registered his fueling activity (e.g., date, gallons, price per gallon, miles, and miles per gallon). I first witnessed the ritual while sitting shotgun at the Texaco in our new 1955 Plymouth.

Pops would have been great in a pharmacy. These days he has his neatly organized drawer of amber vials, blister packs, drug monographs, and a pill splitter. Methodically, he dispenses his and Mom's pills into their little blue patient-specific SMTWTFS boxes. And, true to form, he meticulously charts each administration in the columns of another little spiral notebook (e.g., drug, time, and date). I'd wager that he has a low error rate.

However, these days my folks' medication-management needs are becoming a bit of a challenge for Dad. Their prescriptions are proliferating, and the regimens are becoming more complex—not to mention the fact that during one month a daily dose consists of one 15 mg tablet, and the next month it's one-and-a-half 10 mg tablets. Yikes! We are asking patients to do at home what must be done in hospitals by trained technicians, pharmacists, and nurses in a carefully controlled multi-check environment.

Appropriately, we give a lot of attention to the medication-use process in hospitals. Unfortunately, we do not give enough attention to what happens in homes.

While I've seen a dozen or so stabs at technology for promoting outpatient adherence to prescriptions, the one that makes the most sense to me is what a number of long-term care facilities are finding effective. Their closed-door pharmacies deliver strips of patient-specific medication pouches, which have been prepared in automated packaging machines. These rolled-up strips are placed in patient-specific boxes and then placed in medication carts with the next dose showing.

In addition to the name of the patient and the drug (in easy-to-read print), each pouch bears the date, day, and time that the medication is to be taken (e.g., Wednesday, April 3, 9 AM, etc.). When applicable, instructions are added (e.g., take with food), and some include bar codes, which though rarely used, position

a facility for point-of-care verification scanning down line. Let's call these infopacks.

What about the rest of us who have to medicate ourselves?

Some time ago on NPR, I heard a faculty member of a prestigious medical school describe a teaching segment she calls "Pill Taking 101," during which she dispenses boxes of Tic Tacs to students, along with a two-week regimen (sig., "Take one green tablet after breakfast and a blue tablet after dinner for two weeks." She said that all her students fail to adhere. Her point is obvious. If these young, bright, alert students have trouble with something so simple, they should anticipate that their patients will have all the more difficulty in managing multiple meds in stressful situations.

In home settings, infopacks would reduce omissions and redundancies ("Honey, did I take this already?"). They would also reduce wrong-drug, wrong-patient errors ("Hmm, is the green pill yours or mine?"). And they would help with timing ("Let's see, am I supposed to take the yellow pill in the morning or the evening?")

Now picture these home infopacks with bar codes as well. Why not add a small scanning device to my dad's personal pharmacy? When he takes his pills, he could scan each package, and his data could be stored and forwarded to his physician's office so they can monitor compliance and intervene when necessary.

Hey, I want my meds to come in these kinds of packages. Each of the few times time I've taken antibiotics, I've come to the end of a five-day regimen and had pills left over. I was sure I had taken the prescribed three a day. You too?

As for my charting pill-taking notes in a spiral notebook, this apple fell too far from that tree.

What do you think?



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