

I've been thinking...



Leaping to Conclusions
August 2008

I've been thinking about booze, drugs, frogs, nails, and leaping to conclusions.

When I was in college, a professor gave our class a lesson in logic. On Monday evening a man drank enough gin and tonic that he ended up talking loudly, slurring his words, irritating his wife. On Tuesday evening she suggested he try something else. He cooperated by drinking vodka and tonic. Again his speech was slurred and his wife was annoyed. At her suggestion he tried yet another drink on Wednesday. When whiskey and tonic produced the same result, his wife saw a pattern and put her foot down. "No more tonic, mister. I don't like what it does to you."

We are on the heels of our third nationally noted episode of Heparin overdoses involving infants—first, the six Indianapolis babies (three of whom died) in September 2006, then the Quaid twins in Hollywood last Thanksgiving, and most recently the 17 newborns in Corpus Christi last month. What were the causes of each?

The first two episodes resulted from distribution/dispensing errors. In both instances pharmacy technicians delivered the *wrong* strength of the *right* medication to the care unit. Nurses failed to notice the errors and administered 10,000 units/ml, an adult dose, instead of Heparin Lock Flush-Injection (Hep-Lock, a diluted form of Heparin) at 10 units/ml. Though not identical, the vials and labels looked alike. It should be noted that the manufacturer addressed and now produces different, easy-to-discern packaging for each.

On both occasions I noted, as did our friends at ISMP and ASHP, that bar coding could have helped prevent the errors. For example, had the Indiana technicians who filled the automated dispensing cabinets used bar-code scanning to verify right products/right compartments, the system could have intercepted the errors before the drugs reached the nurses. Automated dispensing cabinets were not involved in the Quaid's overdoses. Nevertheless, in both hospitals, bar coding at the point of care (BPOC) could have spared the tykes from harm's way. Just two weeks ago, Dennis and Kimberly Quaid toured Dallas Children's and received a demonstration of how the hospital's BPOC system and caregiver policies have been doing this for years.

What about the Corpus Christi crisis further south? Fortunately, as with the Cedars' nurses in Hollywood, vigilant caregivers caught the overdoses early enough from lab results to administer antidotes in time to spare the babies from serious injuries.

The casual observer might race to conclude that bar coding at point-of-cabinet filling, dispensing, or at the point of care could have prevented these frightening events. However, this would require similar logic to the lady who concluded that her husband was getting drunk on tonic.

The fact is, bar coding at cabinets and/or bedsides would not have done anything to prevent the Texas errors. The problem originated in the pharmacy at the point of admixing when the wrong strength of the right drug was mistakenly grabbed. Neither the most alert conscientious nurse, nor a state-of-the-art BPOC-scanning system could have discerned that the fluid delivered was an overdose.

At the same time, [ISMP's response](#) to Corpus Christi notes that among other important precautions, using bar-code product verification in the admixing process can prevent such mishaps in the pharmacy.

Before I let you get back to your day, I must mention two other disturbing leaps I have observed in response to the latest Heparin errors. The first came from someone weighing in on the *Wall Street Journal* Health Blog: "There were 17 victims of someone's negligence. There are 17 boys and girls who will never see a sunset, go to their first prom, enjoy the warm embrace of their families. Let us remember this above all..."

I hope this person was not a decision-making caregiver. If so, it's frightening that he or she would read part of the story and assume that if there is a Heparin overdose there must be a death. The fact is, only two of the children were lost. And while we grieve for all concerned, the deaths of these premature twins have not been definitively linked to the errors. The other 15 children went home to experience the embrace of their families.

Finally, the most embarrassing and annoying leap in logic was made in a kneejerk press release from Leapfrog, which quoted CEO Leah Binder as saying, "Incidents like this are the reason why computerized systems for ordering medication in hospitals has been The Leapfrog Group's number one safety measure that it urges all hospitals to take ...If this isn't a wake up call, I don't want to know what one really looks like."

Yikes! [Mr. Histalk](#) articulated what many of us were feeling: "None of the recent high-profile incidents had anything to do with physicians or ordering—it was all product delivery, preparation, or administration where what was ordered wasn't what was administered. Trying to shoehorn in the tired old Leapfrog CPOE mantra is just absurd." Seems to hit the nail on the head.

Speaking of nails—reminds me of the saying “If all you have is a hammer everything starts to look like a nail.”

As an ounce of leap prevention we all would do well to apply a bit more FMEA* to our logic.

My gratitude to you who not only read this column but also take the time to help me keep from flying over the facts and flying high on the buzz that I sometimes draw from premature conclusions.

What do you think?



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