I've been thinking...

Checklists
April 2010

I've been thinking about checklists.

My kids and their kids love Arnold Lobel's Frog and Toad stories. So do I. My favorite is *A List*.

Still in bed, Toad decides to make a list so he can remember all the things he must do in the day before him. He scribbles, *wake up*, which he crosses out right away because he's already done that. Then he scratches, *get dressed*, *eat breakfast*, *go to Frog's house*, *eat lunch*, *take walk with Frog*, and so on. Eventually he writes *eat supper* and concludes with *go to bed*. After getting dressed and eating breakfast, he crosses them out and heads for Frog's house. While showing off his list, a gust of wind sweeps it high into the air. "What will I do without my list?" he cries. The ever-fixing-things Frog suggests that if they hurry they can catch the list. But Toad protests, "I can't. Running after my list was not on my list of things to do today."

I wonder if Toad has a list of things he wants to do before he dies. For two years *The Bucket List*, staring Jack Nicholson and Morgan Freemen (speaking of a frog and a toad) has been on my list of must-see movies. It's about two terminally ill men who escape from a hospital and head out on a road trip with a list of must-dos before they "kick the bucket."

Truthfully, my bucket list is pretty short. However if you've read my *Thinking*'s, you've probably guessed that my list includes "Encourage hospitals to bar code." I'm committed to do what I can to see that bar coding at the point of care (BPOC) gets checked off as many hospital to-do lists as possible before I kick the bucket—not to mention, before any more of our patients and loved ones die from errors bar coding could have prevented.

Last week, I finally crossed *Checklist Manifesto*[1] off my reading list—a fascinating book about "How to get things right." Its best-selling author, Atul Gawande, who by day is an endocrine surgeon at Brigham and Women's Hospital, demonstrates how "the lowly checklist" is making surgery suites safer. Do checklists play as well across the hallway at patient bedsides? We all know they work across the street in everyday life.

Gawande argues that most medical mistakes stem not from ignorance so much as ineptitude. Memories lapse. Mundane, routine (though essential) matters are easily overlooked under the strain of more pressing circumstances. He sites vital signs as an example. Nurses know *vital* does not

[1] Read great review of *Checklist Manifesto* at wachtersworld.com

mean *optional*. Yet in the fray, any three signs taken could be normal while the one skipped is off the charts.

The author notes how in the late 1960s, charting vital signs became the norm for nurses. Patient charts were redesigned to include spaces for recording each vital sign—essentially creating a kind of checklist to ensure none was missed. Somewhere along the line the list was refined to add a pain scale.

Similarly, with medication administrations there are vital steps to ensure things are done right. Unlike vital signs however, these steps must be retained in one's memory as they are not specifically listed on printed or electronic charts. I honestly don't have a clue if or how Gawandesque checklists should be applied to the medication administrations. Though, it might be worth pondering. Nevertheless, it seems to me that BPOC serves as a sort of checklist—forcing function—that helps prevent nurses from skipping vital steps.

Last year a group of San Francisco hospitals reported an 88 percent reduction in medication administration errors over a three-year period as a result of nurses conscientiously adhering to six performance elements (a checklist, no?) at the point of care:

1. Compare medication to medical record
2. Keep medication labeled until administration
3. Check two forms of patient identification
4. Immediately record medication administration in chart
5. Explain the medication to the patient
6. Minimize distractions and disruptions during the administration process

From her must-read post on *Florence dot com*, entitled "Error Prevention Strategies: It's not 'Sophie's Choice' folks," my favorite patient-safety blogger, Barbara Olson, notes:

> *BCMA (bar-code medication administration) automates key elements of the performance measures the San Francisco nurses built into the system they tested. These include comparing medication to data in the medical record; immediately recording medication administration in the chart; and checking two forms of patient identification. Additionally, BCMA work flows necessarily foster work processes in which medications remain labeled (often in their original packaging) until the point of medication administration.*

Perhaps BCMA vendors should offer the option of a pop-up window at the end of each administration, prompting nurses to "explain the medication to the patient."

Gawande makes it clear that "checklists are not comprehensive how-to guides." (Frog and Toad had to chase the list—even though it wasn't on their list.) "They are quick and simple tools aimed to buttress the skills of expert professionals."[2]

He admits that much of what ends up on lists *seems* dumb (e.g. check that doors and window are closed before taxi and takeoff, wash hands before surgery, etc.). But he's quick to add, "The checklist gets the dumb stuff out of the way, the routines your brain shouldn't have to occupy itself with."[3] Freeing pilots to fly their planes. Freeing doctors and nurses to concentrate on clinical evaluations and actions their patients require.

Gawande writes about his visit to Boeing's "checklist factory"[4] where checklists for pilots who fly Boeing planes are continually refined. First, he saw the "normal" checklists in a thick manual. These provide the routine lists pilots use for everyday operations, including things to check before starting engines, pulling away from the gate, taxiing to the runway, etc. In total, these take up just three pages. The rest of the handbook consists of scores of "non-normal" checklists, which cover every conceivable emergency pilots might run into—to which they refer as needed.

For bar coding to be efficacious at the point of care, upstream systems must be carefully crafted according to pretty long checklists. If you have implemented or are planning on implementing bar coding in your hospital, I want to invite you to The unSUMMIT for Bedside Barcoding, May 5-7 in Atlanta. It's a virtual checklist factory for pharmacists, nurses, and IT people who are not only interested in checking BPOC off their lists, but are also intent on sharing and refining their BPOC-enterprise checklists with a commitment to getting things right.

What do you think?

Mark Neuenschwander

BTW. Barbara Olson is refining her "Sophie's Choice" article, which she will present as the closing keynote at The unSUMMIT.

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2 Gawande, *Checklist Manifesto*, p 128
3 Gawande, p 177
4 Gawande, chapter 6