E1: 10 Things Every Hospital Needs to Know to be Safe

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My Agenda

• Ten insights about patient safety
  – Criteria: Interesting, surprising, iconoclastic
• Four main categories
  1. Big picture concepts and thinking
  2. Motivations and workforce
  3. Pushing back on orthodoxies
  4. Information technology-related
• 50 minutes ÷ 10 topics = fasten your seat belts
First Area: The Big Picture

“The Challenge That Will Dominate Your Career...”
Why We’re Being Pressured to Change

The New York Times

Test for Hospital Budgets: Are the Patients

To Err Is Human

Institute of Medicine

#1: The Business Case for Safety and Value

- Year 2000: zero business case for safety, quality, and performance
- Today: competitive pressure, accreditation, transparency, and payment changes
- Best estimate: 8-10% of hospital Medicare payments will hinge on performance by 2017
#2: Teamwork Matters… But So Does Leadership

- Emphasis in patient safety field on teamwork, interdisciplinary care, dampening down hierarchies
- Generally helpful, and generally correct
- But…

“The core structure of medicine – how health care is organized and practiced – emerged in an era when doctors could hold all the key information patients needed in their heads and manage everything required themselves….We were craftsmen. We could set the fracture, spin the blood, plate the cultures, administer the antiserum. The nature of the knowledge lent itself to prizing autonomy, independence, and self-sufficiency… and to designing medicine accordingly…. 
But you can’t hold all the information in your head any longer, and you can’t master all the skills. No one person can work up a patient’s back pain, run the immunoassay, do the physical therapy, protocol the MRI, and direct the treatment of the unexpected cancer found growing in the spine. I don’t even know what it means to ‘protocol’ the MRI.”

Atul Gawande, *The New Yorker* 2011

New Educational Models Emphasize Teamwork*

Neily J, et al. Association between implementation of a medical team training program and surgical mortality. *JAMA* 2010

*At least in healthcare*
The Caveats: Leadership Is Still Crucial…

1. I believe deeply in teamwork & collaboration
2. That said, if I code before this talk ends, I’d like one of you – not the whole crowd – to run my code
3. Please be sure it is one of you who knows what you’re doing

Second Area: Motivations & Workforce
#3: The Answers May Be Nearby

- Tendency to seek answers from some famous Midwest clinic, or marquis *US News & World Report* top hospital
- But many answers can, and should, be found closer to home

The Predictable Comebacks to Outside Comparators

"They don’t have homeless people there…"  
"Our patients are older…"  
"They have private jets from Qatar landing there every day…"  
"Try doing that with our medical staff."

"We don’t have their resources…"  
"They have 75 years of history"  
"They do ‘Big Data’ there"
... And It’s a Mess

- Medicare’s *Hospital Compare*
- *Consumer Reports*
- Healthgrades
- The Joint Commission
- Leapfrog
- Truven Analytics
- *US News & World Report*

*Estimate: About 1000 US hospitals now one of America’s top 100 hospitals*

Jordan Rau, Hospital Ratings are in the Eye of the Beholder, *Kaiser Health News*, 2013

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**Culture and Performance Are Local**

Safety Climate
Across 49 Units
in One Hospital

*Safety Climate Across 100 Hospitals*

Pronovost/Sexton, *QSHC* 2005
#4: When It Comes to Motivating People, Look Beyond the Money

- Many health economists looked at healthcare and saw a need for more incentives
- Pay-for-performance now the rage

Clinicians are Motivated by More Than Dollars

Autonomy, mastery, and purpose…
Social vs. Market Transactions: The Israeli Daycare Center

“When a social norm collides with a market norm, the social norm goes away for a long time… Money, as it turns out, is very often the most expensive way to motivate people. Social norms are not only cheaper, but often more effective as well.”
Does P4P Work Better Than Simple Transparency? The Jury is Out

The Caveats

- One can find evidence for and against P4P
- Some interpret negative P4P studies as showing that it wasn’t organized correctly, or $s too small
- Many levels to consider; ie, payer employs P4P but the organization uses transparency or professionalism. Or vice versa
- Good leaders and policy makers are thoughtful, not doctrinaire, about choice of tools
Third Area: It’s the System… or Is It?

#5: Systems Are Important, But People Still Matter

- Systems thinking mostly correct, and politically correct
  - In both senses of the words
- But some areas depend on individual performance
  - Diagnostic errors
  - Technical skills


#6: Need to Balance “No Blame” and Accountability

- The “No Blame,” “It’s the System, Stupid” approach has been crucial
  - Most errors are “slips”—expected behavior by humans, particularly when engaged in “automatic behaviors”
  - Can only be fixed by improving systems (checklists, double-checks, standardization, IT, other new technology…)

Jejunojejunostomy: Highly vs. Low Rated Surgeons

Courtesy John Birkmeyer and Jonathan Fink, Univ. of Michigan
At the Junction, the Message Gets a Little Garbled…

No Blame Accountability

James Reason Understood This Tension in 1997

A ‘no-blame’ culture is neither feasible nor desirable. A small proportion of human unsafe acts are egregious… and warrant sanctions, severe ones in some cases. A blanket amnesty on all unsafe acts would lack credibility in the eyes of the workforce. More importantly, it would be seen to oppose natural justice. What is needed is a just culture, an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information – but in which they are also clear about where the line must be drawn between acceptable and unacceptable behavior.

Reason, Managing the Risks…
Individual Accountability: The Hand Washing Story

- Typical hand hygiene rates circa 1999: 10-30%
- Over last decade, tremendous push to improve (via transparency, social pressures, and more)
- Many hospitals now ~60%, and stuck
- “It’s a Systems Problem”: Education, dispensers every 3 feet
- A systems problem? Really?

Wachter and Pronovost, NEJM 2009

Who Decided that a 60% Hand Washing Rate is a “Systems Problem”? 
Bottom Line: Clinicians, leaders and organizations will be held accountable for safety

“‘No blame is not a moral imperative (even if it seems so to providers, it most definitely does not to patients). Rather, it’s a tactic to achieve ends for which providers and healthcare organizations will be held accountable.”

Wachter and Pronovost, NEJM 2009

Fourth Area: IT-Related Issues

The Digital Doctor
Hope, Hype, and Harm at the Dawn of Medicine’s Computer Age

Robert Wachter
#6: Healthcare IT: Some Surprising Problems Emerge

- Getting better, but juxtaposition with breathtaking state of IT in the rest of our lives ever-more jarring
- Early glowing studies not generalizable to vendor-built systems
- Unforeseen consequences
  - Growing literature on IT-related safety hazards

Adaptive vs. Technical Problems

“... problems that require people themselves to change. In adaptive problems, the people are the problem and the people are the solution. And leadership then is about mobilizing and engaging the people with the problem rather than trying to anesthetize them so that you can just go off and solve it on your own.”

– Ronald Heifetz, Kennedy School of Government
#7: Deskilling in Face of Automation

The “Glass Cockpit Syndrome”: The Tragedy of Air France 447
The Phenomenon of “Deskilling”

“How do you measure the expense of an erosion of effort and engagement, or a waning of agency and autonomy, or a subtle deterioration of skill? You can’t. Those are the kinds of shadowy, intangible things that we rarely appreciate until after they’re gone.”

-- Nicholas Carr

#8: Alert Fatigue: A Clear and Present Danger

- One month in UCSF ICUs (70 beds)
  - 2,558,760 alerts
  - One audible alert every 7 minutes
  - What would get a nurse scared?
- vs. Boeing’s thoughtful approach to alerts
  - Number and gradation

Drew B. Plos One 2014
#9: The Demise of Radiology Rounds and the Importance of Geography

“The man who ruined radiology”
– Paul Chang’s dad

Digital Radiology as the Canary in the Coal Mine

- The digitization of the thing creates the opportunity for infinite scalability/distribution
- Social relationships and communication patterns that depended on gathering around the thing will wither
- Power relationships mediated by who controls the thing will be renegotiated
- What happens when the thing isn’t the film, it’s the medical record…”
Residents’ Room Vs. The Ward

#10: Medicine as a Deeply Human Endeavor

“The patient is still at the center, but more as an icon for another entity clothed in binary garments: the ‘iPatient.’ Often, ER personnel have already scanned, tested, and diagnosed, so that interns meet a fully formed iPatient long before seeing the real patient. The iPatient’s blood counts and emanations are tracked and trended like a Dow Jones Index, and pop-up flags remind caregivers to feed or bleed. iPatients are handily ‘card-flipped in the team’s conference room, while the real patients keep the beds warm and ensure that the folders bearing their names stay alive on the computer.”

Abraham Verghese, *NEJM* 2008
The Fastest Growing Job in Medicine...

A Busy Doctor’s Right Hand, Ever Ready to Type

By KATIE HAFNER
JAN. 12, 2014

DALLAS — Amid the controlled chaos that defines an average afternoon in an urban emergency department, Dr. Marian Bednar, an emergency room physician at Texas Health Presbyterian Hospital Dallas, entered the exam room of an older woman who had fallen while walking her dog. Like any doctor, she asked questions, conducted an exam and gave a diagnosis — in this case, a fractured hand — while also doing something many physicians in today’s computerized world are no longer free to do: She gave the patient her full attention.

Standing a few feet away, tapping on a handheld device...
One Final Thought About Health IT and the Humanity of Medicine