Physician Training and the Culture of Quality

David B. Nash, MD, MBA
“Didn’t we have an agenda?”
13 Things Car Dealers Won’t Tell You

EXCLUSIVE

Doctors Confess Their FATAL MISTAKES

Foods That Fight Back Pain

Sigourney Weaver
Her Guilty Pleasure

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Tobacco Smoke Enema (1750s-1810s)
The tobacco enema was used to infuse tobacco smoke into a patient's rectum for various medical purposes, primarily the resuscitation of drowning victims. A rectal tube inserted into the anus was connected to a fumigator and bellows that forced the smoke towards the rectum. The warmth of the smoke was thought to promote respiration, but doubts about the credibility of tobacco enemas led to the popular phrase "blow smoke up one's ass."

This Old Tool has been reintroduced in Washington D.C. by the New Administration.
Are you starting to feel it
1. Doctors are well prepared in the science-base of medicine
2. Doctors are well prepared in the skills necessary to care for individual patients
3. Few are qualified or trained with the skills to improve care and improve patient safety
What are some of those skills?

1. Work effectively in teams
2. Understand work as a process
3. Skill in collecting, analyzing and displaying data on the outcomes of care
4. Work collaboratively with managers and patients
5. Ability and willingness to learn from mistakes
“Systemness” of Practice

1. We can greatly improve care by closing the often wide gaps between prevailing practices and the best known (evidence-based) approaches to care.

2. Variation is too great to support the claim that everyone is correct.

3. How do we translate research findings into practice i.e., beta blocker use, inhaled steroids, and the like.

4. Reductions in medical error must be due in part to recognizing unsafe system design.
“Systemness” of Practice

“A set of interdependent elements interacting to achieve a common aim.”

1. Non-linear
2. Defy simple cause and effect notions
3. Prediction is difficult
4. Test changes on a small scale because of the interdependencies
5. Traditional discipline specific improvement ignores systemness i.e., to make doctors better at doctoring, to replace one drug with another one
“Systemness” of Practice

Need for Cooperation

1. Modern systems theory highlights cooperation.
2. Applications of research findings on cooperation led to Crew Resource Management.
3. Break down barriers to communication especially “against the authority gradient.”
4. Key Tools for Cooperation
   1. Develop a shared purpose
   2. Create an open and safe environment
   3. Encourage diverse viewpoints
   4. Learn how to negotiate agreement
   5. Insist on equity in applying the rules
Quality Assurance – Old Way

The search for bad apples
(Berwick)

My apple is fine, thank you!
Q.A. Committee

- I once had a case...
- In my experience...
Need for “Systems” Thinking

• What are systems?
• Measurement
• Leadership
• Tests of change
• Cooperation
Costs of Poor Quality

- Cost of our efforts to prevent, detect and react to quality problems
- 20% - 40% of every revenue dollar
- Work and re-work
Continuous Quality Improvement

“Learn from every patient, so that the next patient will receive better treatment.”
See One
Do One
Teach One

But, is it being done right the first time?
Errors

- 85% Process
- 15% Individuals
The names of medications can appear alike. So when filling a prescription, always remember to check the name (brand and generic), dosage form, and strength. Whenever possible, check the indication directly with the patient and offer counseling on proper use.

<table>
<thead>
<tr>
<th><strong>Celebrex™</strong> (celecoxib capsules)</th>
<th><strong>Cerebyx®</strong> (fosphenytoin sodium injection)</th>
<th><strong>Celexa™</strong> (citalopram hydrobromide)</th>
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<tbody>
<tr>
<td>100-mg and 200-mg capsules</td>
<td>10-mL and 2-mL injectable solution</td>
<td>20-mg or 40-mg tablets</td>
</tr>
<tr>
<td>(sel′-uh-breks)</td>
<td>(ser′-uh-bicks)</td>
<td>(sell-eiks′-uh)</td>
</tr>
<tr>
<td>Searle</td>
<td>Parke-Davis</td>
<td>Forest Laboratories</td>
</tr>
<tr>
<td>Ostearthritis (OA) and adult rheumatoid arthritis (RA)</td>
<td>Prevention and treatment of seizures</td>
<td>Major depression</td>
</tr>
<tr>
<td>OA: 200 mg qd or 100 mg bid RA: 100 mg bid to 200 mg bid</td>
<td>Status epilepticus: 15-20 mg PE/kg at 100 to 150 mg PE/min; Nonemergent loading and maintenance dosing: 10-20 mg PE/kg given IV or IM; IM or IV substitution for oral phenytoin therapy: may be substituted for oral phenytoin sodium therapy at the same total daily dose at a rate no greater than 150 mg PE/min</td>
<td>20 to 40 mg qd</td>
</tr>
</tbody>
</table>
Every Defect is a Treasure

Failure as treasure vs.
Above all else, do no harm.
Errors are Treasures

Translate Errors Into Education
Old

- We don’t have time
- Quality costs money
- Use intuition and anecdote
- Defects come from people

New

- We don’t have time not to
- Quality saves money
- Collect and analyze data
- Defects come from defective processes
A New Way of Thinking

From

Who did it
Punishment
Errors are rare
MDs don’t participate
Add more complexity
Calculate error rates

To

What allowed it
Thank you!
Errors are everywhere
MDs, RNs, RPhs - everyone is involved
Simplify/standardize
No thresholds
Special Cause

Common Cause Variation

Special Cause
Every process is perfectly designed to achieve exactly the results it gets

Paul Batalden, MD
IHI, Boston
What could we do with our next 25 patients to improve performance?

Does it give you joy to work in this environment?
How to Build Measurement into Practices

- Seek usefulness, not perfection in the measurement
- Use a balanced set of measures
- Keep measurement simple
- Use qualitative and quantitative data
- Write down operational measures
- Measure small samples
- Build measurement into daily work
- Develop a measurement team
**Sigma 6***

<table>
<thead>
<tr>
<th>Sigma Level</th>
<th>Defects/Million</th>
<th>Health care Examples</th>
<th>Industry Examples</th>
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<tbody>
<tr>
<td>6</td>
<td>3.4</td>
<td>None</td>
<td>Publishing: One Misspelled word in a small library</td>
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<tr>
<td></td>
<td>5.4</td>
<td>Anesthesia Deaths</td>
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<td>5</td>
<td>230</td>
<td>None</td>
<td>Airline Fatalities</td>
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<tr>
<td>4</td>
<td>6,210</td>
<td>None</td>
<td>Airline Baggage</td>
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<tr>
<td></td>
<td>10,000</td>
<td>1% Hospital Pts Injured</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>210,000</td>
<td>Ambulatory Antibiotics for colds</td>
<td>Publishing: 7.6 note misspelled words per page</td>
</tr>
</tbody>
</table>

*Motorola: A statistical measure of variation where tolerance limits for defective products is set at 3.4 defects per million units (or opportunities)*

Sigma Comparison of Industries

- IRS Tax Advice (phone-in)
- Mammography screening
- Antibiotic overuse
- Inpatient medication accuracy
- Airline baggage handling
- 44,000-98,000 preventable hospital deaths
- Prescriptions written by doctors
- Acute low back pain
- Post-heart attack medications
- Anesthesia during surgery
- Domestic airline flight fatality rate

Source: GE Medical Systems
YOU'VE GOT TO IMPLEMENT A SIX SIGMA PROGRAM OR ELSE YOU'RE DOOMED.

AREN'T YOU THE SAME CONSULTANT WHO SOLD US THE WORTHLESS TQM PROGRAM A FEW YEARS AGO?

I ASSURE YOU THAT THIS PROGRAM HAS A TOTALLY, TOTALLY DIFFERENT NAME.

WHEN CAN WE START?
Does the damn thing work?

Don't mess with it.

You dumb shit.

Did You mess with it?

Does Anybody Know?

Can You hide it?

You Poor Bastard

Can You blame someone else?

No Problem

Will You be blamed?

Shitcan it.
TQM + The Medical Staff

- Recognize role of TQM along with guidelines and outcomes
- Cannot be done in a vacuum
- Explain the “feedback loop”
TQM + The Medical Staff

- Emphasize the process of care
  - Ancillary support
  - Organization of work

- Stress Scientific Method
  - P-D-C-A
  - Data driven
TQM + The Medical Staff

- Concentrate on “The Golden 15%”
- Appreciate the physician culture
- Appreciate differences between physicians and managers
8th Annual Interclerkship Day
IMPROVING PATIENT SAFETY

Monday, January 3, 2011
Thomas Jefferson University
Doerrance H. Hamilton Building, Connelly Auditorium
1001 Locust Street, Philadelphia, PA 19107

Sponsored by:
Jefferson School of Population Health
and Office of the Dean, Jefferson Medical College

THOMAS JEFFERSON UNIVERSITY
MALPRACTICE & ERRORS

By Darrell G. Kirch and Philip G. Boyden

Changing The Culture In Medical Education To Teach Patient Safety

ABSTRACT In 1999 a seminal Institute of Medicine report estimated that preventable medical errors accounted for 44,000–98,000 patient deaths annually in U.S. hospitals. In response to this problem, the nation’s medical schools, teaching hospitals, and health systems recognized that achieving greater patient safety requires more than a brief course in an already crowded medical school curriculum. It requires a fundamental culture change across all phases of medical education. This includes graduate medical education, which is already teaching the next generation of physicians to approach patient safety in a new way. In this paper the authors explore five factors critical to transforming the culture for patient safety and reflect on one real-world example at the University of North Carolina School of Medicine.

When a report on medical errors comes out, the response often is the question: “Why aren’t they teaching this in medical school?” As noted by the Institute of Medicine (IOM) a decade ago in To Err Is Human, one’s first reaction to a medical error is to blame someone. The report noted, however, that blame may be misplaced, because the conditions of the current health care delivery system can contribute to errors. Therefore, the IOM stated, a multilayered approach—one that addresses systems errors as well as human ones—must be taken to prevent medical errors. There is no “magic bullet” to fix this problem. Advancing patient safety requires a fundamental culture change in health care.

Medical education alone cannot accomplish this shift. However, critical elements of the change are evolving in the nation’s teaching hospitals and medical schools—collectively referred to as “academic medicine.” These institutions recognize that although they produce the best clinicians and scientific experts in the world and provide them with a great body of knowledge, today’s challenge lies in getting these experts to work well together in the clinical environment.

Both individually and collectively as the academic medicine community, these institutions are changing their overall culture to bring about an environment more conducive to patient safety. They are putting processes in place to ensure that clinicians deliver care in optimal ways and, in doing so, are fostering the learning environment needed for resident physicians to become the central change agents for patient safety.

This paper provides an overview of this cultural change, identifies five factors critical to that change, and offers examples of how these factors are being implemented at the University of North Carolina (UNC) School of Medicine, one of the nation’s academic medical centers. Along with many other academic medical centers, the school is participating in the Agency for Healthcare Research and Quality (AHRQ) patient safety initiative called TeamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety).

TeamSTEPPS is a set of tools used to assess an institution’s readiness for change. The program offers patient safety training for health care staff.
I'm sending you to our plant in Elbonia. I want you to teach them "quality."

I selected you because you've been there and you know their language.

They speak English.

Oh, then I guess it's because I hate you.
Dilbert / By Scott Adams

DILBERT TEACHES "QUALITY" MANAGEMENT IN ELBONIA

THE FISHBONE DIAGRAM HELPS IDENTIFY THE ROOT CAUSE OF PROBLEMS.

IN YOUR CASE, THE ROOT PROBLEM SEEMS TO BE THAT YOU'RE A NATION OF IMBECILES...

TRUE, BUT YOU'RE THE ONE WHO HAD TO DRAW A DEAD FISH TO FIGURE IT OUT. YOU'RE IN THE CLUB, HERE'S YOUR HAT.
Nash’s Immutable Rule

High quality care costs less!
Autonomy and Accountability

A Zero Sum Game?
“It’s always better to have them in the tent pissing out, than outside the tent pissing in.”

President, L.B. Johnson
“The institutionalization of leadership training is one of the key attributes of good leadership.”

John P. Kotter, Harvard Business School