

## The Art and Science of Patient Safety

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Medicine has always been described as having a component of art and a component of science. Since the publication of "To Err is Human" [1] in 1999, the emphasis on the science of medicine has grown. The application of evidence based best practice to diminish variation in healthcare was the focus of the past decade. Healthcare leaders looked to the aviation industry in an effort to integrate evidence based best practices in the pursuit of a safer healthcare system. Yet healthcare has not become safer. A 2010 article by Wachter [2] evaluated the improvements in healthcare safety over the decade. Overall, Wachter assessed our nation's safety efforts as a B-, a minimal improvement over a decade of work [2].

What has been the missing element? Why have we been unable to improve significantly? First, healthcare professionals have not truly integrated the science of improvement to make healthcare safer. Gawande [3] alluded to this science in his article, Big Med: Restaurant chains have managed to combine quality control, cost control, and innovation; where he discussed the application of business process improvements at the Cheesecake Factory restaurant chain [3].

In healthcare, variation continues to occur at each and every level - from differing diagnostic approaches to different diagnoses and different treatment protocols.

We continue to cling to the notion of the art of medicine - and the art of determining when to apply evidence based best practice. One could argue that this does us a dis-service in healthcare and cite our declining outcomes in combination with our increased costs as evidence of this. In 2006, the United States was number 1 in terms of healthcare spending per capita but ranked 39<sup>th</sup> for infant mortality, 43<sup>rd</sup> for adult female mortality, 42<sup>nd</sup> for adult male mortality, and 36<sup>th</sup> for life expectancy [4].

Art clearly leaves circumstances open to interpretation. Modern art rightly varies from the Impressionists. However, with art, one is able to choose what they enjoy and which museum to visit. Whether as patient, family member, or visitor, everyone must partake in the healthcare system. Therefore, rather than discuss the art of medicine and the art of patient safety, we discuss the culture of medicine and the culture of patient safety.

The concept of a safety culture originated in high reliability organizations where adverse events are minimized despite carrying out complex and hazardous work. High reliability organizations maintain a commitment to safety at all levels. A "culture of safety" encompasses the following key features:

1. An acknowledgment of the high-risk nature of an organization's activities and the determination to achieve consistently safe operations.
2. A blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment.
3. A goal of collaboration across ranks and disciplines to seek solutions to safety problems.
4. An organizational commitment of resources to address safety concerns [5].

It is clear that significant and sustained advances in patient safety can require complex solutions. Yet it has also been demonstrated that a simple approach can do the job equally well. Strict adherence to checklists has proven effective in the fight against hospital-acquired infections. And, according to the Centers for Disease Control and Prevention, getting an

annual flu shot is a highly effective, low-risk tool in the fight against an illness that's still one of the top-10 killers.

Tell that to the large percentage of caregivers who stubbornly refuse to get a shot of the vaccine. According to the latest data from the CDC, two-thirds of all healthcare personnel, 66.9%, received a flu shot in the 2011-12 flu season. The CDC's goal for healthcare professionals is 90% [6].

For healthcare professionals, adults schooled in science and modern medicine, those numbers are embarrassing. Healthcare professionals seem to have forgotten the primary responsibility to "first, do no harm". Failing to pursue patient safety is a bit like a firefighter who sets fires, or a minister who lacks faith. Overall, it is highly disappointing that healthcare has been unable to make sustained improvement toward achieving a culture of safety.

In the time it will have taken you to read this editorial, approximately eight patients will be injured, and one will die, from preventable medical errors [7]. This is a serious public health problem. When one considers that a typical airline handles customers' baggage at a far lower error rate than the healthcare system handles the administration of drugs to patients, it is also an embarrassment.

### References

1. Kohn LT, Corrigan JM, Donaldson MS (2000) To Err Is Human: Building a Safer Health System. Committee on Quality of Health Care in America, Institute of Medicine. National Academies Press Washington, DC
2. Wachter RM (2010) Patient safety at ten: unmistakable progress, troubling gaps. *Health Aff (Millwood)* 29: 165-173.
3. Gawande A (2012) Restaurant chains have managed to combine quality control, cost control, and innovation. Can health care? *The New Yorker*.
4. Doe J (2009) WHO Statistical Information System (WHOSIS). Geneva: World Health Organization.
5. AHRQ. Safety Culture: A Patient Safety Primer.
6. May D (2012) Taking their shots: Long campaign shows industry just how much work remains to be done.
7. Reinertsen JL (2000) Let's talk about error. *BMJ* 320:730.

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