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Learning Accountability for Patient Outcomes

Peter J. Pronovost, MD, PhD

EACH YEAR, AN ESTIMATED 100 000 PATIENTS DIE OF health care–associated infections, another 44 000 to 98 000 die of other preventable errors, and tens of thousands more die of diagnostic errors or failure to receive recommended therapies.¹⁻³ Physicians are overconfident about the quality of care they provide, believing things will go right rather than wrong, assuming they provide higher-quality care than the evidence suggests, and thinking they alone have sufficient knowledge and skills to provide care.

Teamwork failures are common contributors to harmful errors. In many cases, someone knew something was wrong and either did not speak up or spoke up and was ignored. It is unclear how many teamwork and communication failures result from arrogance. Most clinicians have personal stories of arrogance causing patient harm. My own involved a patient who had classic signs of a latex allergy, but for whom the operating surgeon refused to change gloves, convinced the patient was not experiencing a latex allergy. Only after I threatened to call the dean did he change gloves. Patients also share stories of physicians who made it clear that they were not to be questioned.

Despite a decade-long effort to improve safety, there is limited empirical evidence of improved patient outcomes. To be accountable for patient harms, health care needs valid and transparent measures, knowledge of how often harms are preventable, and interventions and incentives to improve performance.⁴ The science of patient safety is immature and underfunded. Few patient harms can be accurately measured or the extent of preventability even known.

Central line–associated bloodstream infection (CLABSI) is an exception. This infection is common, costly, and is associated with the death of 31 000 patients annually in the United States,³ yet it can be accurately measured and largely prevented.⁵ For instance, a multifaceted intervention⁶ (which involved a checklist of prevention practices, strict measurement of infection rates, and tools to improve culture and teamwork among physicians, nurses, and administrators) implemented in more than 100 intensive care units in Michigan reduced CLABSIs by 66%, and sustained a median infection rate of zero and a mean of 1 infection per 1000 catheter-days for more than 3 years.⁷ Others have achieved similar results.⁸

CLABSI is a bellwether for holding health care professionals accountable for patient outcomes. Accountability for patient outcomes traditionally rests with professional self-regulation. When evaluating a hospital's infection rate comprising the practices of many clinicians, hospital leaders also must be accountable. Too often, neither physicians nor hospital leaders hold themselves accountable for patient outcomes. Many hospital infection rates are substantially higher than the national average, and public reporting seems essential to garner the attention these infection rates deserve.

The CLABSI intervention is being spread to other states. The secretary of the Department of Health and Human Services called for a 50% national reduction in CLABSI over 3 years, creating the first quantifiable patient safety goal in the United States.⁹ Hospital enrollment in the program has been surprisingly slow. In many states, less than 20% of hospitals have volunteered to participate.⁹ Some hospitals have reduced infection rates, most have not. Some hospitals claim they use the checklist, despite having high or unknown infection rates. Some hospitals are content to meet the national average, despite evidence that these rates may be reduced by half. Some hospital administrators say their patients are too sick; these infections are inevitable. Yet, intensive care units in several large academic hospitals have nearly eliminated CLABSIs. Some hospitals blame competing priorities for their inattention to these infections. If these lethal, expensive, measurable, and largely preventable infections are not a priority, what is?

Perhaps most concerning is the response from nurses in participating hospitals when asked: “if a new nurse in your hospital saw a senior physician placing a catheter but not complying with the checklist, would the nurse speak up and would the physician comply?” The answer is almost always, “there is no way the nurse would speak up.” Doubly disturbing, physicians and nurses uniformly agree patients should receive the checklist items. What other industry would accept a routine safety violation that is associated with the deaths of tens of thousands of patients and not be held ac-

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countable? The US health care culture still does not support the questioning of physician behavior.

Although most physicians and hospital leaders genuinely want to prevent harming patients, and many physicians practice good teamwork, this view of not questioning physicians is pervasive. Physicians are often rushed, sleep deprived, and overworked and are offered limited training about teamwork and conflict resolution. The practice setting is not always conducive to completing recommended practice and anything that takes extra time for one patient (eg, searching for supplies) detracts from the care of others. Physicians also may not receive feedback on individual performance or hospital infection rates. Social, cultural, educational, and financial differences between physicians and nurses also may inhibit some nurses from speaking up, even when physicians may welcome such feedback.

Moreover, many physicians have not accepted that fallibilities are part of the human condition. Thus, when a nurse questions them, it causes embarrassment or shame. Clinicians are sometimes arrogant, believing they have all the answers, dismissing team input, responding aggressively when questioned. The line between autonomy and arrogance is fine and nuanced. Society has benefited tremendously from physician autonomy and innovation, producing new drugs, devices, therapies, operations, and anesthetics. Therefore, autonomy and innovation must be continued. However, autonomy becomes arrogance when actions are mindless and not mindful, when something is done simply because a physician demands it, when a clinician does not learn from mistakes, and when experimentation occurs without a clear rationale or testable hypothesis. Too often autonomy is mindless and driven by arrogance. When placing a catheter, reliability not autonomy is needed.

So who is accountable for reducing CLABSIs? Clinicians inserting and maintaining catheters must be accountable for performance, complying with evidence-based practices. Hospital leaders must be accountable for infection rates, monitoring rates, and supporting prevention initiatives. These mechanisms must be supplemented with the public reporting of valid infection rates, financial incentives from insurers, and when needed, sanctions from regulators. This pandemic of infections can be remedied and prevention of other types of preventable harm can be attempted if clinicians—physicians and nurses—work as a team.

Moreover, health care professionals must be accountable for training physicians to accept that they are fallible, ensuring competency in teamwork and conflict resolution and role model these behaviors, supporting emotional and social development, and hiring physicians with relational competency. For preventable outcomes influenced by health care, teams and the context in which care is delivered have a much larger influence on patient outcomes than individual physicians. Ultimately, physicians must be held accountable for their clinical behaviors, and health care leaders accountable for patient outcomes.¹⁰ A good place to start is with reducing CLABSIs.

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REFERENCES

1. Committee on Quality of Health Care in America. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academies Press; 1999.
2. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med*. 2003;348(26):2635-2645.
3. Kleven RM, Edwards JR, Richards CL Jr, et al. Estimating health care-associated infections and deaths in US hospitals, 2002. *Public Health Rep*. 2007;122(2):160-166.
4. Pronovost PJ, Colantuoni E. Measuring preventable harm: helping science keep pace with policy. *JAMA*. 2009;301(12):1273-1275.
5. Edwards JR, Peterson KD, Mu Y, et al. National Healthcare Safety Network (NHSN) report: data summary for 2006 through 2008, issued December 2009. *Am J Infect Control*. 2009;37(10):783-805.
6. Berenholtz SM, Pronovost PJ, Lipsett PA, et al. Eliminating catheter-related bloodstream infections in the intensive care unit. *Crit Care Med*. 2004;32(10):2014-2020.
7. Pronovost PJ, Goeschel CA, Colantuoni E, et al. Sustaining reductions in catheter related bloodstream infections in Michigan intensive care units: observational study. *BMJ*. 2010;340:c309.
8. Miller MR, Griswold M, Harris JM II, et al. Decreasing PICU catheter-associated bloodstream infections: NACHRI's quality transformation efforts. *Pediatrics*. 2010;125(2):206-213.
9. US Department of Health and Human Services. HHS action plan to prevent healthcare-associated infections. <http://www.hhs.gov/ophis/initiatives/hai/actionplan/index.html>. Accessed March 1, 2010.
10. Wachter RM, Pronovost PJ. Balancing "no blame" with accountability in patient safety. *N Engl J Med*. 2009;361(14):1401-1406.