

Foreword



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A chance to cut is a chance to cure—at least that what I was taught. At the time it seemed like a great catch phrase that empowered us surgeons with supernatural abilities. Then one day I was conversing with a neurosurgeon friend of mine who told me that in neurosurgery (according to him, of course) they don't actually "fix" their patients—they make them different. To be fair, for many of these patients different is markedly better. This conversation did, however, cause me to rethink my previous notions regarding cutting and curing and the like. After a while I came to the conclusion that a chance to cut is a chance to improve someone (hopefully), but to cure someone is something else altogether. To cure someone we would have to put him back the way he was, perhaps, as if we had never been there. If one accepts this logical leap then possibly the best chance we have to "cure" somebody is to eradicate an infection.

History is replete with examples of the operative management of infection. Some of the earliest descriptions of medical care are of the drainage of pus. Also, there has been much misunderstanding and propagation of falsehoods regarding the management and prevention of infection over the centuries. Today it would seem as if we have a more complete understanding of what constitutes infections and how to treat or prevent them.

Yet, we don't really use what we already know.

Despite the large amount of published material on infection control and prophylaxis, we often don't change our behaviors. Perhaps it is inertia. Perhaps it is autonomy. Perhaps it is ignorance. Perhaps it is a consequence of adult learning behavior. Be that as it may, we are currently well armed with existing information that would allow us to significantly reduce the incidence and spread of perioperative and nosocomial infections and we don't use the information to its fullest extent.

As of the writing of this Foreword, we citizens of the United States have just inaugurated a new President. Among the greatest challenges we face at present is to try to decide what we each must sacrifice in order to ensure better days ahead for a country that is foundering a bit. For some it will be monetary loss (or investment if you prefer). For some it will be a change in lifestyle or job choice. But for us in medicine it will most likely be a significant loss of autonomy and a significant increase in accountability and transparency. Parenthetically, that will come with a monetary hit also.

Physicians and surgeons in many circumstances hate transparency. I do. I'll confess. Personally, I don't like it because it seems to me that the metrics we use when being "transparent" seem to be half-baked many times and rarely take into account many of the non-measured factors that make a difference. Data acquisition is often incomplete, which further aggravates the analysis. Also, we tend to take problems within a system and assign the fault to somebody who really can't control the situation. In case I am being obtuse I will give you an example: a primary care physician is paid on a pay-for-performance platform. She asks her patient who has diabetes to eat properly, take her insulin, and watch her glucose. When the patient returns to see her physician she has gained weight and skipped her insulin for multiple days since her last visit. Her hemoglobin A_{1c} is now 9.6 and as a result, the physician takes a pay cut. I'll leave the philosophy to you, dear reader, as to the fairness of this, but this is what happens. Rather than find the system disconnect and address that, we find an easy target and micro-penalize that person. In effect, it reduces cost slightly overall to the payer (maybe), marginally improves quality for those who do comply, and cost shifts within the system, all without addressing the weakest link in the chain.

Regardless of my reticence to like transparency, I accept and embrace it and commend it to you. In the end there are many reasons to do so. First, because it won't go away. Second, because it will probably help our patients and us, especially if we actively participate. Our participation and feedback will, it is hoped, correct some of the deficiencies in data collection and analysis and identify the system failures written of earlier. If we don't participate, others are unlikely to help those who remain mute.

Surgeons have been at the forefront of quality control and transparency historically. Morbidity and mortality conferences are transparent to us but no one else—that may be why we accept it. The National Safety Quality Improvement Project is an excellent example of "voluntary" data-gathering that seems to be working. In my opinion, surgeons are excellent at cooperating when all other options have been exhausted.

One of our brethren, Dr. Atul Gawande, and his colleagues recently published a report in the *New England Journal of Medicine* detailing how the simple use of a checklist in multiple countries with widely disparate resources reduced adverse outcome by a substantial and significant percentage.¹ The study may not have been perfect but it does clearly illustrate one thing: when we function as part of a system as opposed to a collection of individuals we seem to get better results. And get this—in Dr Gawande's study, they weren't even able to ensure that the checklist was being adhered to and it still worked! One could say that weakens the report but I submit that it tells us that the Hawthorne effect isn't all bad. Just getting people to participate, or think they are participating, in a system of quality improvement probably improves outcomes compared to sheer anonymous and autonomous behavior.

Back to infection.

We surgeons have to deal with infection on two major fronts: treatment of existing infection and prevention of nosocomial infection. We are pretty good at the former and not as good as we could be at the latter. Most of us adhere to the best operative techniques we can but data suggest we aren't as good at the use of evidence-guided prophylaxis as we can be. Many of these lapses can be traced to systems problems in the identification of the right choice and timely delivery of antibiotics for each patient. Yet some of these lapses are a stubborn adherence to either unproved choices or, worse yet, choices that have been disproved.

Our hospital systems don't necessarily adhere to best current practices either. It remains absolutely curious to me that there is any kind of hospital room other than a private room. Also, I cannot think of why there is not a sink for health care providers

in every entrance to every patient room. I know it costs money to renovate and re-plumb but it seems cheaper to do that than to treat a series of patients in the ICU whose aggressive *Clostridium difficile* colitis has required colectomy. How many of you have walked through an ICU and seen intubated patients lying flat—under the poster on the wall that reads, “keep head of bed at 30 degrees at all times.” Some hospitals embrace central line teams, others don’t.

Surgeons will always be integral in the management of infection for many patients. And we will always put our patients at some risk for developing infection. We can also participate to our fullest to reduce that risk. We as a group have an excellent history of taking quality control measures seriously. We now have to consider our role in a larger sense and advocate as best as possible for a systems approach to infection prevention and treatment.

For those of you who have followed the previous Forewords, the theme of this series is to try to define where and how surgeons fit into to the larger system and advance the knowledge for those matters in which we surgeons should be expert. In this case we may have a head start but we still have a long way to go. Dr. Mazuski and his colleagues have assembled an excellent collection of reviews on matters that are applicable to all of us who practice surgery. Understanding these topics allows us individually to better care for patients who have infection and help us function better within our systems in the broader sense as public advocate. We are indebted to Dr. Mazuski and his contributors for their efforts. Whether a chance to cut is a chance to cure is true, I’ll leave to your judgment. But a gram of prevention is worth several kilograms of cure when it comes to infectious disease. As always, your feedback, comments, and criticism are welcome on this or any other matter related to the *Surgical Clinics of North America*.

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REFERENCE

1. Haynes AB, Weiser TG, Berry WR, et al. A surgical safety checklist to reduce morbidity and mortality in a global population. *N Eng J Med* 2009;360:491–9.