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## Readers Write: Value-Based Healthcare Drives “Left of Bang” Approach for Risk Management and Compliance

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In 2007, the Marine Corps deployed to Iraq and Afghanistan had a problem: how to identify an enemy that blended in with the population. They developed a behavioral approach to helping teams sharpen their tactical awareness skills to remain “[left of bang](#),” or to fend off hostile actions before they culminate in the “bang” of conflict. In 2017, healthcare needs to deploy the same approach to managing risk and improving outcomes.

Healthcare is currently focused on right of bang, or the future correction of adverse events. Too much effort is expended to react to problems that have happened, and aren’t directed to preventing failure. The military (and other industries) expect that more than 80 percent of efforts should be spent left of bang to reliably prevent failure. A shift to a balanced approach is beginning to happen in top health systems for the first time, and it’s critically important for healthcare leaders to understand the how and the why.

How we got to the current right of bang problem is pretty clear. As a physician, I see failure all the time. Kidneys fail, hearts fail, and ultimately people fail. Dealing with that compassionately and professionally is part of the territory. Financial models have not helped at all. Under straight fee-for-service medicine in the past, if I gave someone an infection, it was quite possible I could bill them for a follow-up visit and perhaps even the antibiotics. In that kind of model, preventing failure is working against your economic model, making success in prevention just that much harder.

Times are changing fast. In the last few years, an array of accrediting bodies, regulatory entities, and payment model changes have made failure punishing to a health system’s finances and reputation. It’s now possible to see quality and adverse events on a dozen web sites, and more every day. Readmission prevention, Healthcare-Acquired Conditions, MACRA, MIPS, etc. are all ways of demanding reliable and efficient care. Health systems fail to execute on quality and safety at their risk: competitors across town that are doing it well are looking to expand and acquire patients and even facilities.

For one California-based hospital system, their timeline-oriented thinking – and solutions – needed to become left of bang. One of their hospitals had implemented a Six Sigma plan to reduce central line infections. Six Sigma is a popular [methodology](#) that takes a data-driven approach to eliminate defects in any process. The approach aims for six (or fewer) standard deviations between the mean and the nearest specification limit.

Using Six Sigma, the hospital system found a catheter that was superior in their opinion and a skin sterilization technique they knew worked. That single hospital then worked through the purchasing process, the stocking of the catheter, the sterilization procedures, and finally, implemented a process that ensures no one touches the catheter until the surgeon is ready to insert it into the patient. These improvements eradicated central sepsis at that hospital for more than five years. It was an amazing feat compared to industry standard. This completely redefines the concept of “expected complication” to “zero complications,” and unequivocally saved lives.

It’s a great thing when you can eliminate sepsis in central lines. But five years later, the multiple-hospital system still had a small number of hospitals using the technique. They had no means of assessing system-wide compliance with the Six Sigma process design, which at best was being implemented inconsistently. They simply have not organized left of bang. They admitted they lacked the ability to bring about system-wide change from what was learned at one hospital.

“We know how to prevent central line infections,” said one team member. “But without strong leadership, and the technology to implement the safety procedures system-wide, we find ourselves fixing the same problem every three years. We get serious about a problem, design a solution, and implement it. Then institutional inertia takes over. Two years later we are seeing adverse events, or worse, and ask ourselves ‘Where is that folder on the way we prevent catheter infections?’ It’s just not good enough.”

Getting hospitals to look for patterns in identifying adverse events, and working to identify them before they occur, keeps clinicians and staff in perpetual left of bang mode. But process improvement through Six Sigma isn’t going to enable this essential shift to a safety-first culture. Neither will the latest software or the best management training. It’s going to take all of these approaches – and more – for healthcare to truly see the results and outcomes that payers demand from providers.