

Featured Article

Keeping it real in the OR



By Philip Brzezinski

See how real-time workflow automation technology can translate effective safety interventions into routine practices in the operating room

National attention to patient safety has generated a host of initiatives, following studies demonstrating significant reductions in errors and deaths. These reductions depend upon a confluence of factors. Better communication, a culture of

teamwork, methods for encapsulating patient safety protocols and standards for evidence-based care, electronic health information systems and the ability to measure the success of patient safety initiatives are all steps in the right direction, but they must be brought together proactively to significantly change and improve patient care in hospitals.

The lines between old and new are notably blurred in the operating room, where the technology is among the most innovative, but its culture is, more often than not, old fashioned. Hospital culture is typically hierarchical, not collaborative, particularly in the OR. Yet the elements of teamwork — shared vision, effective coordination of effort, and good communication — have been shown to have the greatest impact on patient care during surgery. Statistics on near-misses and errors in the operating room, where lives are held in the balance, indicate that the need for change is urgent. However, as a fast-paced and important revenue center, the OR cannot accommodate changes that disrupt workflow and potentially threaten both patient safety and efficiency.

Translating effective safety interventions like the surgical Time Out into routine practice is therefore particularly critical in the operating room, but needs to be accomplished seamlessly. Workflow automation tools that automatically align technology with OR workflow are increasingly being deployed to address this issue. OR-Dashboard, LiveData's surgical team safety system for the operating room, goes a step further than other technologies; it provides a systematic foundation for supporting cultural change by orchestrating the confluence of factors needed to improve patient safety:

- A perioperative culture that promotes effective communication and team collaboration;
- Effective measures for following evidence-based practices and safety protocols; and
- Monitoring and measuring the success of patient safety initiatives.

Practice

Active Time Out, the LiveData electronic checklist component, provides an example of how real-time workflow automation technology addresses the above factors. Active Time Out standardizes and systematizes the checklist process so that it can be performed consistently and durably, or in other words, become a routine part of care.

Designed to provide a foundation for effective communication, team collaboration and quality process compliance, OR-Dashboard aligns relevant details on the patient and procedure with each phase of the surgical process and automatically shows the information on a wide-screen display, providing the OR team with a high level of situational awareness from case setup through surgical closing [See Figure 1]. Each element of the Surgical Safety

Checklist (Sign In, Time Out, Sign Out) appears at the appropriate point in case workflow, prompting the team, for example, to begin Time Out just prior to incision.



Figure 1. LiveData OR-Dashboard: The display as it appears during the intraoperative phase of the surgical case.

The LiveData system provides an arsenal of accurate information for not only tracking overall compliance, but also for pinpointing problem areas and monitoring the quality of the checklist process. Without technology, ongoing data collection is difficult, and comprehensive monitoring of the process itself is virtually impossible for most hospitals, which cannot afford to continuously deploy personnel for observation. Integral to OR-Dashboard is its repository of real-time data from the surgical case that includes checklist items along with all other displayed case information, such as the names and roles of everyone in the room at each point in time.

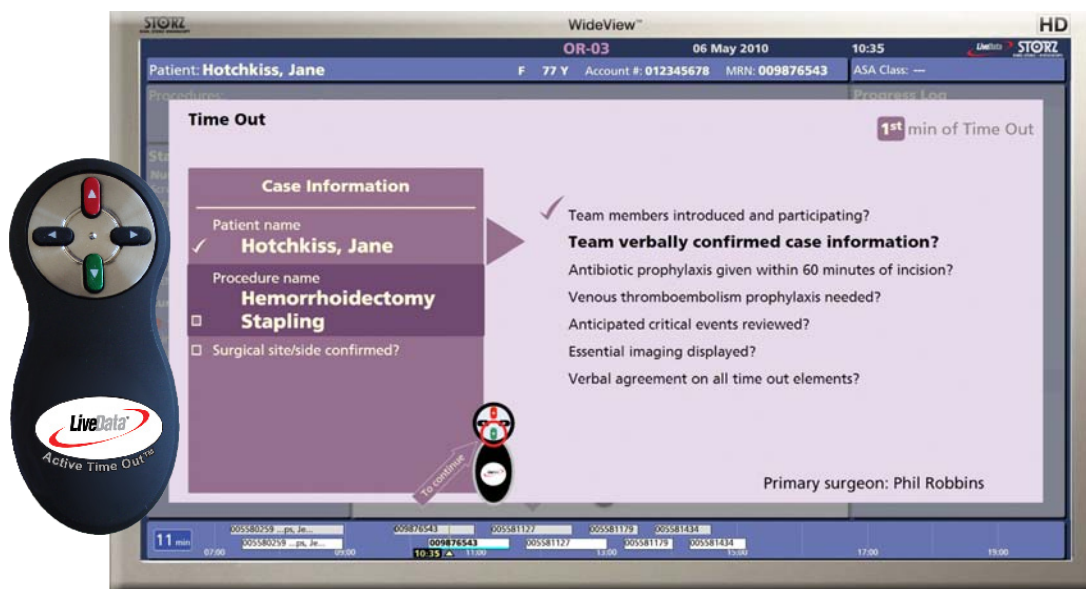


Figure 2: The Active Time Out display and the clicker (left). The Time Out checklist is displayed sequentially to ensure no items are omitted.

With this data, the LiveData system calculates and presents analytic reports that equip the hospital to track whether checklist responses stem from a team effort, when items were reviewed, and whether they were actively reviewed or checked off by rote [See Figure 3]. Web-based, the LiveData system also offers various ways to relay real-time information beyond the OR to quality compliance officers (via text messages to cell phones, for example), enabling them to respond to a process failure before it creates a problem.

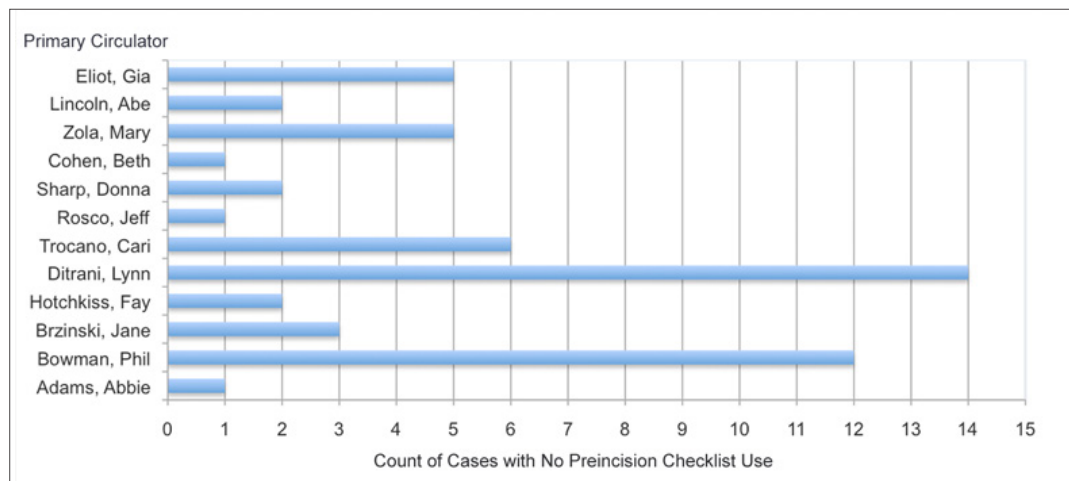


Figure 3. A graph showing Time Out compliance by primary circulating nurse.

If a process is to become part of routine care, it has to be resilient enough to handle modifications. LiveData OR-Dashboard can be configured in minutes to conform to the most recent Joint Commission requirements. Easy to update as well as effectively perform, monitor and measure, the Surgical Safety Checklist as implemented with Active Time Out is designed to withstand the test of time and become a routine part of care.

Philip Brzezinski is vice president of Healthcare Systems at LiveData and is responsible for driving the company's healthcare strategy, including the design and implementation of the company's award-winning OR-Dashboard.

For more information on LiveData: www.livedata.com

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