ECRI Institute PSO
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PSO Monthly Brief

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PSO Deep Dive™ Reveals Need for Careful Planning and Ongoing Commitment for HIT Projects

When planning, implementing, or evaluating a health information technology (HIT) project, one of the main considerations that must be made by a healthcare organization is the system's efficacy in the environment in which it will be used. ECRI Institute Patient Safety Organization (PSO) examined HIT-related adverse events, unsafe conditions, and near misses in its most recent PSO Deep Dive and found that some of the most common events include or pertain to:

- Data entry in the wrong record
- Incorrect data entry
- Poor system configuration

As with any initiative, HIT implementation can only improve the quality of care and patient safety if it is designed, installed, and used correctly. The concern with HIT is that, because so many patients' information passes through the system, any error can potentially affect a significant patient population.

Almost half of the events analyzed in the PSO Deep Dive occurred at the human-computer interface. Frequently, the right data was entered into the wrong record, or the wrong data was entered into the right record. Healthcare professionals who reported such events noted that their system had no failsafe, alert, or process to verify that the right information was being entered into the right patient record.

System configuration, in some events, also reflected an incomplete testing of the system's use. In several events, necessary facets of the program were missing, nonfunctional, or faulty. In others, information that was in the patient's record was not visible on the system display. Likewise, HIT systems should interface thoroughly; some event reports examined in the PSO Deep Dive involved lab results and test findings that were delayed or lost because they did not transfer from one system to another, even though the systems were linked.

System failures such as these can lead staff to develop workarounds that will sidestep not only the HIT system's perceived problem, but also its safety features and fail-safes. HIT implementation must be considered carefully and planned thoroughly before the system is introduced. If the implementation is not supported fully by all levels of the organization, it is less likely to succeed.

"Minimizing the unintended consequences of HIT systems and maximizing the potential of HIT to improve patient safety should be an ongoing focus of every healthcare organization," says Karen P. Zimmer, MD, MPH, FAAP, Medical Director, ECRI Institute PSO. "Healthcare organizations should consider the findings and recommendations in the PSO Deep Dive as part of their effort to achieve those goals."

- The ECRI Institute PSO Deep Dive on health information technology and accompanying toolkit is available as part of ECRI Institute PSO membership or for a fee. For more information, call (610) 825-6000 or e-mail pso@ecri.org.

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How Can We Help You?

Whether you have questions about the final rule or want to learn more about ECRI Institute PSO and/or support for other PSOs, we would be happy to hear from you. Please contact ECRI Institute at pso@ecri.org or call (610) 825-6000, ext. 5558.