

Organizational, cultural, and psychological determinants of smart infusion pump work arounds: a study of 3 U.S. health systems.

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<https://psnet.ahrq.gov/issue/organizational-cultural-and-psychological-determinants-smart-infusion-pump-work-arounds-study>

Smart infusion pumps, which provide alerts and decision support for high-risk medications, have a [proven record](#) of preventing adverse drug events. However, like with all technology users may engage in workarounds that (intentionally or inadvertently) bypass the safety features of the equipment. This qualitative study among nurses at three health systems identified several reasons why nurses used workarounds despite having an overall strong positive perception of smart pumps. While the technology itself necessitated workarounds at times (for example, if the drug to be infused was not in the pump's programmed library), workarounds were more commonly attributed to nontechnical factors such as production pressures or inadequate training. In order to improve adherence to smart pump's safety features, organizations will need to address both technical factors and issues related to nurses' work environment.