

“We investigated nurse perceptions of smart infusion medication pumps to provide evidence-based insights on how to help reduce work around and improve compliance with patient safety policies.” Dunford et al (2014).

Reference:

Dunford, B.B., Perrigino, M., Tucker, S.J., Gaston, C.L., Young, J., Vermace, B.J., Walroth, T.A., Buening, N.R., Skillman, K.L. and Berndt, D. (2014) Organizational, Cultural, and Psychological Determinants of Smart Infusion Pump Work Arounds: A Study of 3 U.S. Health Systems. Journal of Patient Safety. August 12th. .

Survey looks at how nurses use smart infusion pumps [@ivteam](http://ctt.ec/9bub1+) #ivteam

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Abstract:

**OBJECTIVES:** We investigated nurse perceptions of smart infusion medication pumps to provide evidence-based insights on how to help reduce work around and improve compliance with patient safety policies. Specifically, we investigated the following 3 research questions: (1) What are nurses’ current attitudes about smart infusion pumps? (2) What do nurses think are the causes of smart infusion pump work arounds? and (3) To whom do nurses turn for smart infusion pump training and troubleshooting?

**METHODS:** We surveyed a large number of nurses (N = 818) in 3 U.S.-based health care systems to address the research questions above. We assessed nurses’ opinions about smart infusion pumps, organizational perceptions, and the reasons for work arounds using a voluntary and anonymous Web-based survey. Using qualitative research methods, we coded open-ended responses to questions about the reasons for work arounds to organize responses into useful categories.

**RESULTS:** The nurses reported widespread satisfaction with smart infusion pumps. However, they reported numerous organizational, cultural, and psychological causes of smart pump work arounds. Of 1029 open-ended responses to the question “why do smart pump work arounds occur?” approximately 44% of the causes were technology related, 47% were organization related, and 9% were related to individual factors. Finally, an overwhelming majority of nurses reported seeking solutions to smart pump problems from coworkers and being trained primarily on the job.

DISCUSSION AND CONCLUSIONS: Hospitals may significantly improve adherence to smart pump safety features by addressing the nontechnical causes of work arounds and by providing more leadership and formalized training for resolving smart pump-related problems.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

- [Guide for intravenous chemotherapy and associated vascular access devices from Macmillan.](#)
- [CancerUK IV chemotherapy information.](#)

