



## KEY POINT SUMMARY

### OBJECTIVES

The objective of this project was to reduce the time emergency department nurses spent obtaining needed supplies by quantifying the number of “out of patient room” nurse supply searches, estimating the searching rate per hour, and determining which supplies were most frequently searched for before and after implementation of a point-of-use storage system.

## Using Lean Methodology to Decrease Wasted RN Time in Seeking Supplies in Emergency Departments

Richardson, D. M., Rupp, V. A., Long, K. R., Urquhart, M. C., Ricart, E., Newcomb, L. R., Myers, P. J., & Kane, B. G. 2014 | *Journal of Nursing Administration Volume 44, Issue 11, Pages 606-611*

### Key Concepts/Context

This study addresses the issue of supply availability in an emergency department.

### Methods

A pre-post observation study was conducted to investigate the time nurses spent obtaining supplies needed for patient care. Observations were done prior to and after implementation of a point-of-use storage system. After obtaining nurses' permission, trained observers recorded the nurses' time spent obtaining supplies as well as the types of supplies retrieved. Once a nurse indicated to the observer that she was searching for a supply, the following information was recorded: 1) the room where the supply was needed, 2) which supply was being sought, 3) the place where the supply was located, and 4) the number of seconds it took to locate the item.

### Findings

A total of 565 observations took place with 74 nurses being observed. The number of times a nurse had to leave a patient room prior to implementation of point-of-use storage (POUS) system was eight times per eight-hour shift and 10 times per 12-hour shift. After POUS implementation, this decreased to 2.5 per eight-hour shift and one per 12-hour shift. Nurses performed an out-of-room search approximately 0.875 times per hour prior to use of POUS. Out-of-room searches decreased to 0.125 times per hour after POUS implementation. Before the POUS system was used, a median of 54 seconds was invested per search. Time spent searching decreased to 152 seconds after POUS implementation.



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## Design Implications

Ensuring easy access to supplies through the use of a POUS system reduced time away from the bedside from 16 minutes to two minutes per eight-hour shift. Investing in a POUS system and a dedicated supply assistant would be cost-effective when the hours of nursing care gained is considered. Furthermore, easily available supplies reduce time away from the bedside and reduce the number of interruptions in care delivery.

## Limitations

The study listed the following as limitations: only day-shift RNs were observed and only a single hospital was included. Time tracked in this study did not account for time used to gather supplies before entering the room. Confounding variables such as variations in patient acuity, variations in support personnel, and variations in geographical location of patient rooms were not considered. Additionally, no validity, reliability, or interrater reliability testing was done. The final limitation listed recognized the variations in different POUS systems. While one was selected for this study, there are different costs and designs that might be considered.