Waste Not-Want Not: A LEAN Approach for Reducing Bedside Waste

Beth Bradley, MSN, RN; Nicole Seger, MSN, RN, CPN

Penn State Hershey Medical Center, Hershey, PA

bbradley@hmc.psu.edu; nseger@hmc.psu.edu

Introduction

Nurse Manager oversight for a high quality, safe patient care unit includes responsibility for ensuring infrastructure efficiency and allocating resources appropriately. These accountabilities are unwavering even as organizations face increasing financial pressures. To this end, the Pediatric Intensive Care Unit (PICU) leadership team and clinical nurses sought to reduce system waste by redesigning the unit's acquisition, distribution, and storage of supplies. A shared governance approach engaged unit council members and leadership in a mutually agreeable cost reduction initiative.

Photo of actual wasted clinical care supplies

A picture is worth a thousand words, or in this case thousands of dollars.

Methods

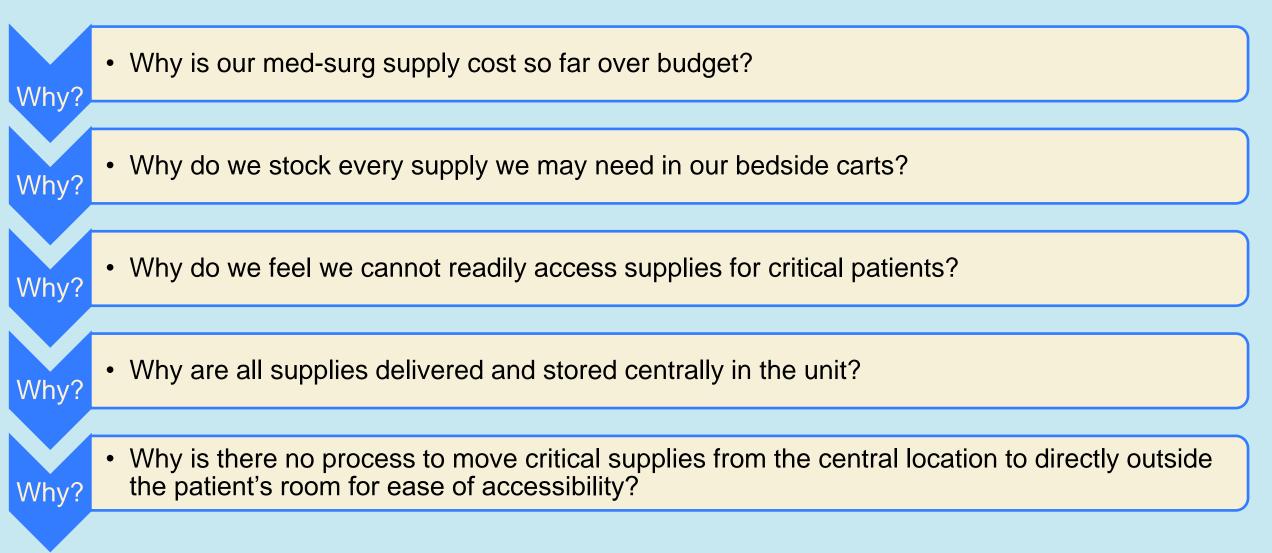The Pediatric Acute Care Nurse Manager led the project and involved clinical nurses.

- Created buy in and hardwired the process by involving PICU clinical nurses who designed the original PICU supply carts.

- Used LEAN principles and a multidisciplinary approach with nurse managers, clinical nurses, and the transport team.

- Examined LEAN concepts and pay for performance.

- Developed an interprofessional supply and distribution process to decrease supply waste.

  - Reviewed supplies available at admission and related costs.

  - Assessed cost of waste incurred with discharges and transfers.

  - Collaborated with transport to decrease par levels of bedside supplies upon admission or transfer in.

- Removed specific supplies that could be located elsewhere.

- Presented plan to decrease supply waste and costs for the unit.

Leadership Led the 5 Why Discussion

Why? • Why is our med-surg supply cost so far over budget?

Why? • Why do we stock every supply we may need in our bedside carts?

Why? • Why do we feel we cannot readily access supplies for critical patients?

Why? • Why are all supplies delivered and stored centrally in the unit?

Why? • Why is there no process to move critical supplies from the central location to directly outside the patient's room for ease of accessibility?

Results

Clinical nursing staff collaborated with the interprofessional team, analyzed costs of bedside supplies, and eliminated items nonessential in the care of every patient. Relocation and storage redesign allowed quick access for urgent patient care needs; reducing costs of unused, discarded supplies. The initiative gained momentum. The Pediatric Intermediate Care Unit (PIMCU) employed the same concepts and embarked on their journey to eliminate bedside supply waste.

Reduction in Bedside Supply Costs

Unit	Original Bedside Supply Cost/Cart	Reduced Bedside Supply Cost/Cart	Percent Savings/ Cart	Annual Bedside Supply Cost Savings*
Pediatric Intensive Care Unit	$65.02	$30.19	54%	$19,086.84
Pediatric Intermediate Care Unit	$40.00	$21.04	48%	$25,197.84
				$44,284.68

*Annual bedside supply cost savings = Original bedside supply cost – Reduced beside supply cost x annual admissions and transfers

Discussion

Nursing behavior was identified as a barrier to implementation. If staff do not trust they will have the supplies they need, they tend to stockpile. The interprofessional team used the shared governance model and presented the plan to decrease supply waste and costs for the unit. Nurses discussed with peers the importance of not adding additional and unnecessary supplies. They encouraged them to trust the nursing support team to stock the room daily to agreed upon par levels. The supply level at the bedside has been maintained because of these efforts.

Photo of current supply cart showing an organized and appropriately stocked cart

Conclusions

Engaging the interprofessional shared governance team, and introducing and using the LEAN approach proved to be an effective method to reduce bedside waste. This approach is able to be replicated in other care settings.

References

Kimsey, D.B. (2010).Lean methodology in heathcare. *AORN Journal, 92*(1), 53-60.

Radnor, Z.J., Holweg, M., & Waring, J. (2012). Lean in healthcare: The unfulfilled promise? *Social Science & Medicine, 74*, 364-371.

Zidel, T.G. (2006). A lean toolbox: Using lean principles and techniques in healthcare. *Journal for Healthcare Quality, 28*(1), W1-7-W1-15. Available at http://services.medicine.uab.edu/publicdocuments/anesthesiology/jc0923art1.pdf