

## BACKGROUND

Trauma is the leading cause of death worldwide. In the United States, trauma is the leading cause of death in young adults and accounts for ten percent of death in all men and women.



**The Johns Hopkins Hospital (JHH)**, located in the heart of Baltimore City, Maryland, is certified as a designated Level 1 Trauma Center for adult and pediatric population in Maryland and D.C. We provide quality care for the most complex emergency cases.

Being located in Baltimore, with one of the highest crime rates in the U.S., we must be prepared to provide time effective care. Patient safety is our highest priority!

In the event of a level 1 trauma/emergency case posted in our hospital, the trauma team of the operating room will utilize the set-up room for trauma or use the mobile back-up case cart and pick the supplies specific for that emergency case. A complete and readily available supplies, instruments, equipment and manpower significantly impacts the outcome of a trauma patient.



## PROBLEMS

- Staff's inability to provide time-sensitive supplies during surgery frustrates surgeon
- Due to high turnover, new and travel nursing staff frequently request unit resources to find needed supplies
- Frequent trips to the sterile core increase OR foot traffic
- Storeroom staff struggles to replenish supply cart
- Pandemic disruptions continue to affect case cart replenishment

## GOALS

To create an accessible, manageable, and effective OR supply cart and layout to boost staff confidence in finding supplies and establish a dynamic scanning process for supply restocking

## PROCESS

The illustration explains the team's process in creating the new supply cart:

- Staff survey
- Literature search
- Hospital benchmarking
- Multidisciplinary collaboration
- Creation of new supply cart

**Staff Feedback**  
Requested staff's input regarding the state and functionality of current supply cart

**Literature Search**  
Searched the literature for evidence-based practices/best practices about operating room supply cart

**Hospital Benchmarking**  
Surveyed different hospital of their current practices

**Multidisciplinary Collaboration**  
Conducted multiple meetings between our managers, directors, supply room leadership for support and insight

**Creation of the New Supply Cart**  
Developed new supply cart and perform staff education

**Conducted Time Test Efficiency**  
to evaluate effectiveness of the improved supply cart

## IMPLEMENTATION

Increased PAR levels of commonly used items

Individualized & separated items in each bin for easy stocking and inventory

Grouped supplies according to services, usage & purpose

Color coded bins and placed larger labels

Provided a transparent cover to minimize contamination

Staff given thorough cart orientation

Continuously evaluated and monitored the progress and effectiveness

Conducted Likert scale survey to evaluate staff satisfaction



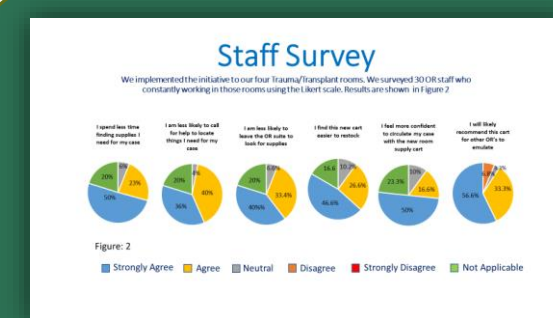
## OUTCOMES

- New supply carts have decreased idle time during the procedure resulting in overall increase in workflow/decrease in operating time
- Decreased frequency of the circulator to locate supplies out of the OR suite thus decreasing OR foot traffic
- Increased confidence of new and agency staff to circulate independently
- Improved organization and restocking process
- Increase staff satisfaction due to improve efficient workflow
- Feedbacks from staff:

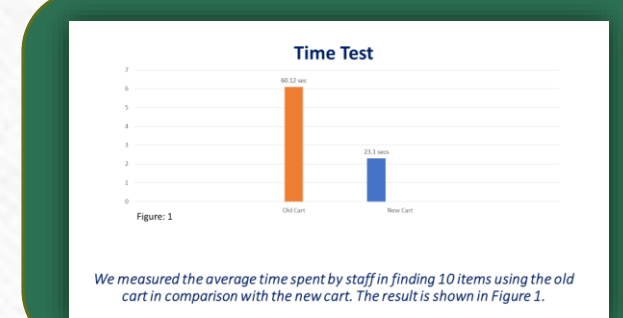


- "I like that it's color coded. I can easily pinpoint the item!!"
- "I was not tired circulating the trauma case, almost all I need is in the cart!"
- "It's very effective, specially the groupings of items... it does makes sense!"
- "I enjoyed circulating with this improved supply cart in my room..."
- "I can still read it even without my glasses on!"
- "Please make our exchange carts in our ORs like this!! I want it copied!"

## LIKERT SURVEY



## TIME TEST



## FUTURE RECOMMENDATION

Share the initiative in implementing new organized supply carts across OR services to standardize supply carts

## REFERENCES

- Centers for Disease Control and Prevention (CDC): Morbidity and Mortality weekly Report. Economic Cost of Injury — United States, 2019. Cora Peterson, PhD; Gabrielle F. Miller, PhD; Sarah Beth L. Barnett, PhD; Curtis Florence, PhD. December 3, 2021
- Premier. November 08, 2021. Report: The Current State of Healthcare Supply Chain Disruptions
- Health Affairs Forefront: COVID-19's Impact On Nursing Shortages, The Rise Of Travel Nurses, And Price Gouging by Y. Tony Yang & Diana J. Mason. January 28, 2022

## ACKNOWLEDGEMENT

OR team members: Jessica Lam, BSN, RN, Jessica Bell, BSN, RN, Maryanne Villa, BSN, RN, Cherryl Marin, BSN, RN, Cecilia Casimiro, BSN, RN, Madison Callahan, CST  
Perioperative Leadership: Laurie Saletnik, DNP, Terry Emerson, DNP, Jay Pajaron, BSN, RN  
Supply Chain Department: Matthew Schahfer, Inventory Supply Manager, Jerry Barnes, Implant Supply Supervisor