

# Taking it Off: A Novel Approach to PPE Removal to Reduce Potential Contamination and Waste



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## Background

The use of isolation gowns in hospitals is on the rise due to an increase in multi-drug resistant organisms and C-difficile.<sup>1</sup> Waste receptacles are overflowing with contaminated isolation gowns affecting the cleanliness of environment and placing a burden on EVS to manage the additional waste.<sup>2</sup> An important component of the patient satisfaction score (HCAPS) is environmental cleanliness which can be impacted by overflowing waste receptacle. In addition, epidemiological studies have shown contamination of the skin and clothing of health care personnel occurs frequently (46.0%) during removal of contaminated gloves and gowns.<sup>3</sup>

## Objectives

The objective of the quality improvement project was to introduce innovative technology (Go Gown®) to force function doffing techniques and examine the impact on environmental waste.

## Disclosures

Kathleen Vollman involved in the quality improvement study as an outside consultant  
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## Innovation

The GoGown™ is a disposable gown with an inside wrapper panel that allows the contaminated gown and gloves to be wrapped in a small bundle for compact disposal.



## Methodology

Quality Improvement Project

- Pre-Post Design
- Location: Surgical Intensive Care Unit in a large Academic Medical Center
- Time Period: 4 month pre and 4 months post implementation in 2018

Study variables:

- Number of trash liners used
  - Number of trash pulls
  - Impact on cost related to waste control
- Statistical analysis: 2 Tail T-test was used with a significance at p=0.05.

## Results

Pre liner use: 1.01419645

Post liner use: 0.595694\*

\*P < 0.0001

1 trash pull per day eliminated allowing EVS workers to concentrate on other duties

## Conclusion

- Implementation of an innovative gown with a pocket helps to force function staffs process of doffing
- A significant reduction in waste was seen and a noticeably cleaner environment
- Savings were seen in reduced trash pulls and use of liners
- While not directly studied, there is the potential for impacting HCAPS scores based on a cleaner hospital environment and reducing microbiological contamination of the HCW.

## References

1. Health Research & Educational Trust (2017). Multi-Drug Resistant Organism Infection Change Package: 2017 Update. Chicago, IL: Health Research & Educational Trust. Accessed at [www.hret-hiin.org](http://www.hret-hiin.org)
2. Hospital Cleanliness Impact Patent experience <https://facilityexecutive.com/2016/11/83312/>.
3. Suen LKP, et al. Antimicrobial Resistance & Infection Control. 2018;7:157