Keep Your Guard Up…Don't Pass It On: Infection Prevention In The OR!

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Background / Purpose

Background: Surgical Site Infection (SSIs) are one of the most common nosocomial infections. Hand Hygiene was among the list of causation of SSIs. SSI's are preventable Healthcare-Associated Infections (HAI's) that compromise patient safety, well-being, and impacts their health. To prevent these SSIs from occurring, the first step is to ensure that the proper hand hygiene technique is being followed. According to Schwartz et al. (2018), "surgical hand antisepsis is paramount to surgical infection prevention, and adherence to correct technique may be suboptimal."

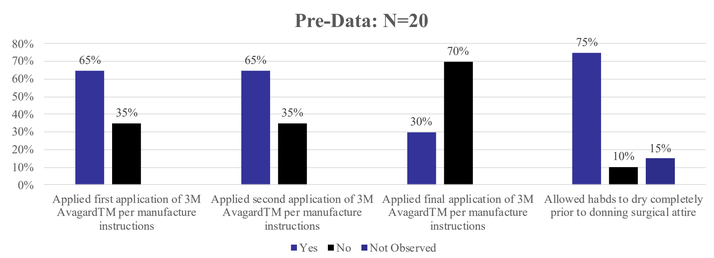
Purpose: A few members of the SSI committee in the operating room at Emory University Hospital (EUH-OR) stated that some of the surgical teams members were not applying the surgical rub, 3M Avagard™ correctly. Proper application of the 3M Avagard ™ should decrease the amount of SSI's to improve patient outcomes.

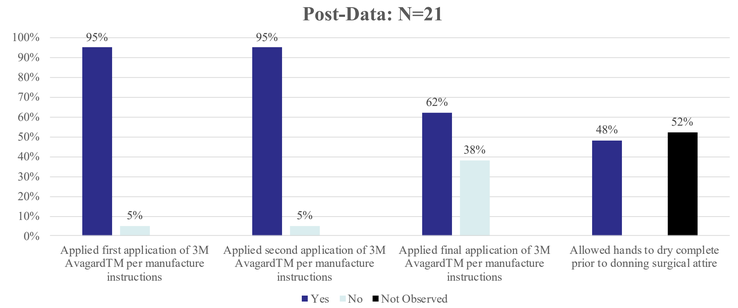
Goal: To gain 100% compliance with the proper application of the surgical rub appliance, 3M Avagard™ within the operating room at EUH-OR by August 2022.

Methods/Data Analysis

- 3M Avagard™ is a surgical hand scrub that contains alcohol and Chlorhexidine Gluconate (CHG) as recommended by AORN.
- An audit form utilizing a QR code was developed using the instructions from the manufacture to help with identifying any barriers or gaps within the operating room, and to assess any deficiencies in technique. The QR codes were posted at each hand washing station.
- Members from the SSI committee participated in data collection as "secret" surveyors by scanning the QR code and answering the five questions based on what they observed.
- The first round of observations to collect pre-data was 3/28/22 - 4/14/22.
- An in-service on proper usage of 3M Avagard™, and the impact of reducing SSI's for pt. safety was completed on 5/26/22 for all OR staff (nurses & surgical techs).
- The second round of observations occurred 5/30/22- 6/10/22 to collect post data.

Results





Discussion / Conclusion

- A total of 41 OR staff were randomly observed, and the goal to gain 100% compliance with the proper application of the surgical rub was not met. However, after completing the in-service, and performing observational audits the results have shown some improvement.
- Pre-Data observations were completed on N= 20 randomly selected OR staff over 1.5 months. Based on the results from the pre-data, 65% completed the first and second application of the surgical rub, however, 70% did not complete the final application, and 75% allowed their hands to completely dry before donning surgical attire.
- Additional data gathered from the participants after attending the in-services showed that, 72% thought the presentation was effective, and 24% thought it was somewhat effective.
- Post- data observations were completed on N= 21 over two weeks and results showed 95% of the OR staff completed the first and second application correctly, 62% applied the final application, and 48% allowed the rub to properly dry. 52% were not observed.
- Limitations/challenges faced during the project were:
  - collecting pre and post data due to changes in the researcher's schedule
  - getting buy-in from the OR staff
  - setting up the room in preparation for surgery, while trying to observe OR staff at the hand washing station.

Implications For Practice

- Based on the findings, there remains room for improvement for surgical hand hygiene. A stricter policy needs to be created and implemented within the EUH OR, and possibly at the other entities.
- The next step is get the surgeons on board with this process. The PowerPoint slides from the in- service will be uploaded digitally on the TV screen to serves as a visual-reminder for all OR staff.
- Potential inclusion of the product education into the orientation for those new to the OR, and annual competency/skill validation could assist with the sustainability of this practice.

Supporting Evidence/References

Mukherjee, R., Roy, P., & Parik, M. (2021). Achieving perfect hand washing: an audit cycle with surgical internees. *Indian Journal of Surgery*, 83(5), 1166-1172.

Schwartz, X., Schmitz, M., Safdar, N., & Pop-Vicas, A. (2018). Adherence to surgical hand antisepsis: Barriers and facilitators in a tertiary care hospital. *American Journal of Infection Control*, 46(6), 714-716.

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Acknowledgements (Grants, People)

- Kate Pettorini- Unit Nurse Educator, MSN, RN, CNOR
- Yodit Tamiru, BSN, RN
- Traci Anderson, BSN, RN