

The Effectiveness of Avagard Over Traditional Hand Scrubbing in Preventing Surgical Site Infections

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Background

Surgical site infections (SSI) have been ranked as the most common and costly nosocomial infections resulting in a 77% mortality rate for patients with an SSI.¹ Formulas that contain anywhere from 60-95% of alcohol alone are more effective in lowering the number of bacteria on the hands post scrub.² Adherence to hand hygiene protocol is directly correlated to the decrease in the prevalence of post surgical site infections.

PICOT Question

For patients undergoing open surgery, does the use of Avagard vs traditional hand scrubbing, reduce the risk of surgical site infection within 30 days post-operation?

- P
- Patients undergoing open surgery
- I
- The use of Avagard
- C
- The use of traditional hand scrub
- O
- Reducing surgical site infections
- T
- Within 30 days



Literature Search

Databases:

1. Pubmed
2. Google scholar
3. MEDLINE
4. CDC

Key Terms:

1. Avagard vs. traditional scrubbing
2. Surgical Site Infections
3. Operating room
4. Antisepsis

Article Selection

Criteria:

1. Published between 2017 and 2022
2. Published in English
3. Published in a scholarly journal/article
4. Aligns with research question

Synthesis of Findings

- It has been found through multiple studies that using an alcohol-based antiseptic rub before performing an open surgical procedure is superior in preventing surgical site infections over traditional hand scrub.^{1-7, 9}
- Waterless hand rub was found to be more favorable and practiced amongst surgeons and nurses over traditional hand scrub.^{1, 4-7}
- Ethyl alcohol at 61% with 1% chlorhexidine gluconate showed higher efficacy than the traditional washing antiseptics.³
- Studies show that alcohol-based hand sanitizers such as Avagard increase the compliance with hand hygiene measures.^{4, 5}
- The incidence of surgical site infections was 1.3% using traditional hand scrub while the use of Avagard was 1.1%.⁵

Decision to Change

Decrease the prevalence of SSIs in open surgery patients:

- Surgeons must use Avagard properly prior to surgery.
- Supply information regarding use in the form of posters in the scrub area.
- Assess adherence to the use of Avagard by random observation.
- Patients' results will be gathered and analyzed 30 days post-surgery to assess the presence of a surgical site infection by using the ASEPSIS grading scale.⁸
- The ASEPSIS score is used daily by assessing the additional treatment, serous discharge, erythema, purulent exudate, separation of deep tissue, isolation of bacteria, and prolonged hospital stay over 14 days.

Evaluation

By the end of the 1-month implementation period, Avagard will decrease the risk for surgical site infections in open surgery patients by 5%.

A substantial amount of research has been conducted and found that the compliance rates of using Avagard is higher than using traditional hand scrub.

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