

Stratus Handheld Fogging of Microburst Use Guidelines for Bioburden Reduction in the Operating Room

RECOMMENDED FREQUENCY OF USE

Stratus fogging of Microburst™ hypochlorous acid as an adjunct disinfection practice in the operating room for surface bioburden and pathogen reduction is based on the Center for Disease Control and Prevention (CDC) environmental room frequency guidelines.¹

- Before the First Surgical Procedure**
 The preliminary cleaning includes using a disinfectant to ensure the area, including all horizontal surfaces, are fully decontaminated before the first procedure. Application time is approximately 1-2 minutes pending room equipment and size.
- Before and After Each Surgical Procedure**
 Disinfect all horizontal high-touch surfaces outside the surgical field, and all high- and low-touch surfaces including floors inside the surgical field near the patient core area. Application time is approximately 1-2 minutes.
- After the Final Surgical Procedure (Terminal Clean)**
 Disinfect all horizontal high- and low-touch surfaces, including fixed equipment and floors. Disinfect all vertical surfaces including walls and ventilations ducts. Disinfect portable patient-care equipment that is not stored within the operating room before removal from the room. Application time is approximately 4-5 minutes.

PRODUCT PREPARATION:

- Microburst™ Solution:** To activate, peel sticker, press cap, and lightly shake the bottle. Let stand for 1 minute. Solution is effective for up to 7 days.
- Stratus Fogger:** Turn reservoir cap counterclockwise to open. Pour Microburst™ solution to desired level and replace cap. Do not exceed the maximum capacity of the reservoir tank. Set volume to "0".

APPLICATION GUIDELINES:

- Remove gross debris, visible soil, and used linens per facility policy
- Manually clean all designated high-touch surfaces
- Apply Microburst™ surface disinfectant via Stratus Fogger using S-like motion, increasing volume as necessary
- Surface disinfection requires minimum of 1-minute contact time for common SSI pathogens
- Allow Microburst™ to air dry
- If needed, wipe any notable residual with a low-lint towel

REDUCING BIOBURDEN

The cleaning and disinfection of healthcare facilities' environmental surfaces is essential to reduce pathogen contribution to healthcare-associated infections (HAIs). Exposure to environmental opportunistic pathogens may result in patient acquired infections causing significant morbidity and/or mortality.²

Surgical site infections (SSIs) are the most costly type of HAI with an estimated cost of \$3.3 billion spent annually, increasing the patient length of hospital stay by an average of 9.7 days, and elevating the cost of hospitalization by more than \$20,000 per admission.³ While advances have been made in operating room (OR) infection control practices, including improved room ventilation, sterilization methods, surgical techniques, and antimicrobial prophylaxis, the annual number of reported SSIs continues to increase.⁴

To improve disinfection procedures for pathogen reduction, consideration is being given to technologies that can augment standard OR manual cleaning protocols. The use of newer, disinfection systems such as the Stratus handheld fogging of Microburst™ hypochlorous acid (HOCl) serve as valuable adjunct practices for operating room disinfection. Evidence shows less than 50% of surfaces are disinfected with standard manual cleaning practices.⁵ The fogging of Microburst™ hypochlorous acid (HOCl) has been proven to reduce pathogens and surface bioburden,⁶ while consistently maintaining safe humidity levels in the procedural area⁷.

Microburst™ is an EPA registered, non-toxic, hospital grade disinfectant whose primary ingredient is HOCl and is highly effective against the most common SSI pathogen, Staphylococcus aureus, as well as other viral, bacterial and fungi pathogens including C. Auris.⁸

REFERENCES

¹<https://www.cdc.gov/healthcare-associated-infections/media/pdfs/environmental-cleaning-rls-508.pdf>

²<https://www.cdc.gov/hai/prevent/environment/surfaces.html>

^{3,4}<https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscscsscurrent.pdf>

⁵<https://www.aorn.org/outpatient-surgery/article/the-pros-and-cons-of-whole-room-disinfection-approaches>

⁶<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7892299/>

⁷[The Impact of Handheld Fogging of Hypochlorous Acid on Procedural Room Humidity Levels \(nevoainc.com\)](https://www.nevoainc.com)

⁸[https://www.nevoainc.com/wp-content/uploads/2024/10/Independent-Laboratory-Testing-Overview-UPDATED-102024.pdf \(nevoainc.com\)](https://www.nevoainc.com/wp-content/uploads/2024/10/Independent-Laboratory-Testing-Overview-UPDATED-102024.pdf)