

Stratus Handheld Fogging of Microburst Use Guidelines for Bioburden Reduction in the Emergency Department

The Stratus handheld fogging of Microburst™ hypochlorous acid as part of a bundled protocol for Emergency Department disinfection is based on the Center for Disease Control and Prevention (CDC) environmental room and frequency guidelines.¹ The Emergency Department (ED) is considered to have moderate to high-risk treatment areas due to the wide variability in the condition of patients, admissions and departmental configuration.

RECOMMENDED EMERGENCY DEPARTMENT FREQUENCY OF USE FOR STRATUS MICROBURST™ FOGGING

- **Waiting/Admission Areas & Bathrooms**
Fog Microburst™ at least once daily per 24-hour period to all high- and low-touch surfaces, including floors. Application time is approximately 1-2 minutes depending on room size.
- **Consultation/Examination (low acuity)**
Fog Microburst™ after each event/case or at least twice daily and as needed for all high-touch surfaces. For end-of-day use, include all low-touch surfaces and floors. Application time is approximately 1-2 minutes.
- **Procedural Areas (trauma and critical care)**
Fog Microburst™ before and after every procedure (between procedures). Include all high-touch surfaces, procedural table and floors in the patient zone. Application time approximately 1-2 minutes.
- **Procedural Areas (trauma and critical care)**
Fog Microburst™ for end-of-day (terminal cleaning). Include all surfaces and the entire floor. Scrub and handwash sink areas. Application time approximately 3-5 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 seven 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.

APPLICATION GUIDELINES:

1. Remove any gross debris and visible soil; discard any used linens per facility policy
2. Manually clean area per facility policy
3. Apply Microburst™ surface disinfectant via Stratus Fogger using S-like motion at selected volume setting
4. Surface disinfection requires minimum of 1-minute contact time for most common pathogens
5. Allow Microburst to air dry
6. If needed, wipe any notable residual with low-lint towel

RECOMMENDED USERS

- EVS or clinical team members trained on product use guidelines

BACKGROUND

According to the CDC, there were 139.8 million emergency department patient visits in 2021, of which 18 million resulted in hospital admissions.² The number of HAIs directly attributed to ED care is not clearly known; however, the setting offers unique challenges to infection control and prevention.

Diverse levels of injured and acutely ill patients seeking evaluation and medical treatment have the potential to spread communicable infectious diseases while also being vulnerable to acquiring new infections associated with the care they receive.³ Communicable diseases are easily spread via airborne, droplet and direct contact within the immediate environment as patients sit in close proximity to one another. Invasive interventions may also be performed in the ED procedural areas, which increases the potential risk for device related infections.

Effective and sustainable strategies are crucial to keep patients and staff safe and prevent healthcare-associated infections (HAIs); these bundled strategies include effective hand hygiene, transmission-based precautions, universal decolonization and environmental cleaning techniques incorporating enhanced disinfection solutions.⁴

Healthcare organizations continue to review and implement innovative, evidence-based technologies and protocols to elevate infection prevention standards for the dynamic environment of the emergency department. The use of newer disinfection systems such as the Stratus handheld fogging of Microburst™ hypochlorous acid (HOCl) serve as valuable adjunct practices for ED disinfection.

Evidence shows that less than 50% of surfaces are disinfected with standard, manual cleaning practices.⁵ The fogging of Microburst has been proven to be an effective practice for pathogen and surface bioburden reduction.⁶ Microburst is an EPA registered, non-toxic, hospital-grade disinfectant whose primary ingredient is HOCl, which is effective against common HAI viral, bacterial and fungi pathogens including C.Auris.⁷

REFERENCES

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

²<https://www.cdc.gov/nchs/fastats/emergency-department.htm>

³<https://pmc.ncbi.nlm.nih.gov/articles/PMC4143473/>

⁴<https://pmc.ncbi.nlm.nih.gov/articles/PMC6203442/>

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<https://www.nevoainc.com/wp-content/uploads/2023/06/Independent-Laboratory-Testing-Overview-Final-pdf-update-10012021-copy.pdf> (nevoainc.com)

