

# clinell®

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Removes  
and prevents  
biofilms

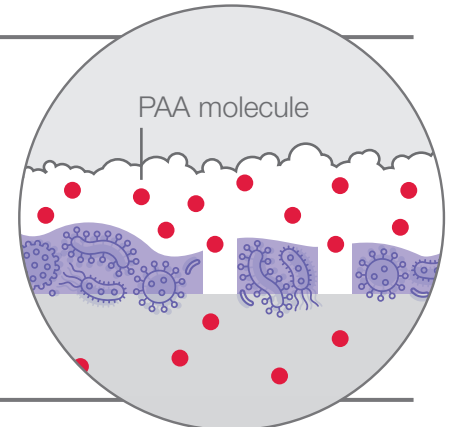


## Drain Disinfectant

Clinell Drain Disinfectant contains peracetic acid-generating granules with proven efficacy against multispecies biofilms, including those caused by Gram-negative bacteria. Clinell Drain Disinfectant destroys biofilms through the drainage, preventing regrowth for at least four days.

# DRAIN DISINFECTANT

Removes and prevents formation of biofilms, including those caused by highly resistant Gram-negative species.



Contaminated wet and dry surfaces contribute to the transmission of pathogens that cause healthcare-associated infections<sup>1,2</sup>. Sinks and drains are an important factor in the transmission of key Gram-negative bacteria, including *Pseudomonas aeruginosa*, *Klebsiella*, *Acinetobacter* and carbapenemase-producing *Enterobacteriaceae* (CPE)<sup>3,4</sup>.

## THE PROBLEM

Contaminated drains are increasingly found to be the source of ongoing outbreaks of preventable infections.

Drains in healthcare settings are frequently contaminated with antibiotic-resistant bacteria<sup>5,6</sup>. Staff and patients use sinks and showers for hand hygiene, washing and waste disposal – flushing pathogenic bacteria into the drainage system<sup>7</sup>. Drainage traps and U-bends provide ideal conditions for bacteria to thrive due to presence of moisture and abundant food sources.

In these ideal conditions, bacteria form biofilms – protective structures that render traditional disinfectants used in routine healthcare environment concentrations ineffective<sup>8</sup>. From here, bacteria can safely multiply. When those drains are used, biofilms allow bacteria contaminating the sink to spread back onto nearby surfaces through splashing, to the hands of healthcare workers, nearby items and subsequently to patients<sup>9,10</sup>.

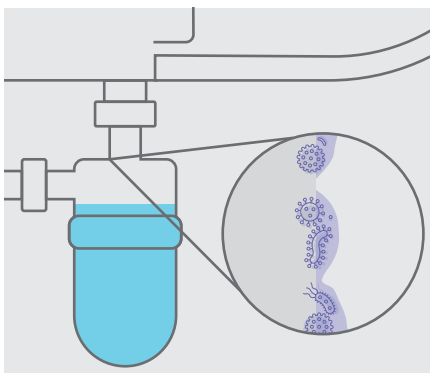
## DIFFERENT APPROACHES

Failure to tackle drain-based biofilms can lead to recurrent outbreaks and prolonged ward closures. Because of these risks, various interventions have been attempted. These include physical methods to remove biofilm, replacement of sanitary hardware and changing the clinical environment to reduce physical contact with sinks/drains<sup>11,12</sup>. Ultimately though, sinks will become re-contaminated as staff caring for colonised patients will decontaminate their hands by washing them with soap and water and so most efforts have proven either ineffective, impractical or prohibitively expensive.

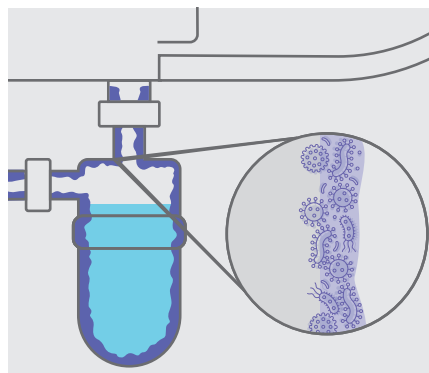
## THE SOLUTION

Clinell Drain Disinfectant eradicates drain based biofilms.

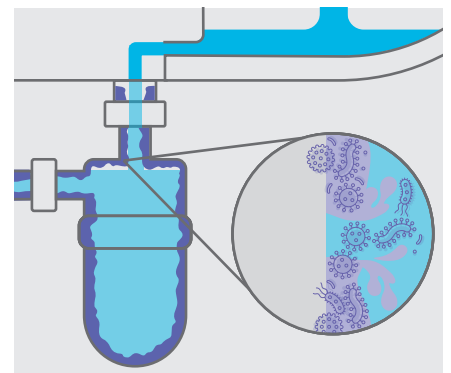
Powered by a unique formulation based on our patented Clinell Sporicidal Wipes, it generates a blend of oxidative disinfectants to target both the protective structure of the biofilm and the bacteria living within<sup>13</sup>.



Bacteria adhere to the surface of the drain.



Bacteria multiply and build up a protective biofilm, rendering traditional disinfectants ineffective (at lower concentrations).



When the tap is used, splashback can allow bacteria to transfer to the hands of healthcare workers, nearby surfaces and ultimately to patients.

A unique formulation breaks down biofilms, killing 99.9999% of bacteria, including *Pseudomonas*, *Escherichia coli* (E. coli) and *Staphylococcus aureus*.



### FAST-ACTING AND LONG-LASTING

Clinell Drain Disinfectant takes only 15 minutes to eradicate even the most persistent biofilms and prevent regrowth for at least 4 days.

### MORE EFFECTIVE THAN CHLORINE

Most 'traditional' chlorine treatments kill bacteria at the time of application, but regrowth occurs quite rapidly around the sink outlet. Clinell Drain Disinfectant tackles both bacteria and biofilms all the way through the drainage trap, preventing regrowth for days after use.

### SAVE TIME AND MONEY

After initial usage for three consecutive days, use Clinell Drain Disinfectant just twice weekly to prevent the regrowth of biofilms. This helps to reduce the risk of healthcare-associated infections and potential water-related outbreaks of infection. Use as part of your planned preventative maintenance programme to avoid ward closures, expensive repairs and replacement costs.

### COMPATIBILITY

Clinell Drain Disinfectant has been formulated with compatibility in mind – working at a near-neutral pH. Unlike most chlorine-based disinfectants, it can be used regularly, without the worry of causing damage to drains and hospital infrastructure.

## Cutting-edge research

Working with researchers at Cardiff University, we're pioneering new ways to tackle the protective biofilms in our environment<sup>14,15</sup>. Using their unique model, they were able to replicate the conditions within a contaminated drain more accurately than ever before.

Their method enables them to test for disinfectant efficacy right the way through the drainage trap. When they tested sodium hypochlorite (NaOCl) 1,000ppm, they found it was only effective in the front part of the drain – leaving the main bacterial reservoir largely intact and allowing the biofilm to quickly re-establish.

Clinell Drain Disinfectant destroys biofilm all the way through the system, preventing regrowth for at least 4 days.

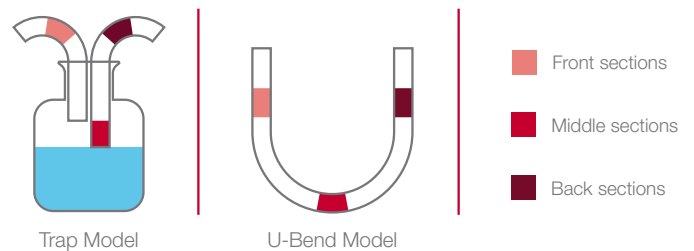


Figure 1: Depiction of laboratory models based on the two most common hospital drainage systems.

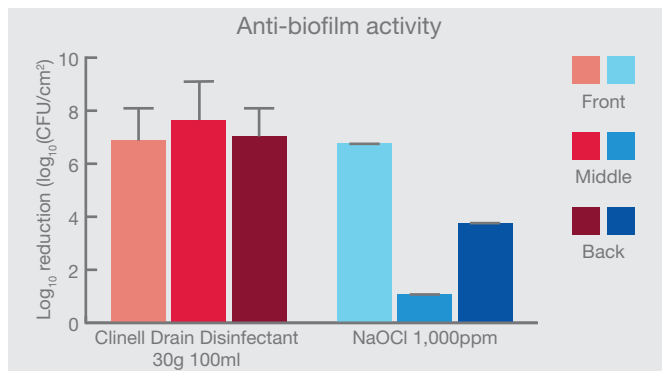


Figure 2: Anti-biofilm activity of Clinell Drain Disinfectant versus Sodium Hypochlorite throughout the sections of a drainage trap.

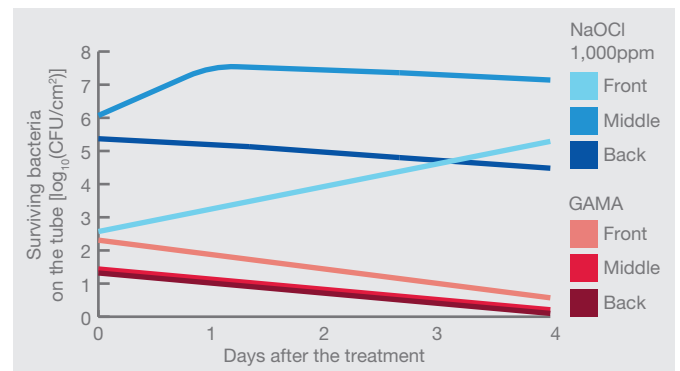


Figure 3: Surviving bacteria as measured up to 4 days. Hypochlorite allows bacteria to survive in the middle and back sections – enabling rapid recovery. Clinell Drain Disinfectant prevents biofilm regrowth.

# DRAIN DISINFECTANT

Destroy the protective bacterial biofilms building up throughout the drains of hospital sinks and showers. Our unique formulation prevents biofilms from recovering for at least four days.



## Eradicate persistent pathogens.

**First time use:** Use daily for 3 days. Efficacy data shows this will eradicate established biofilm.

**Ongoing use:** Use twice a week. Proven to prevent biofilm regrowth. **In outbreak situations, use daily**

- Wear appropriate PPE.
- Turn on the hot tap/shower for 30 seconds.
- Pour entire contents of the sachet into the running water near the drain. Turn off tap/shower immediately.
- Place Clinell Drain Disinfectant Indicator Tape over the sink/shower to prevent use.
- Wait for at least 15 mins.  
DO NOT USE SINK/SHOWER DURING THIS TIME.
- Turn on the tap for 30 seconds to flush the drain before using sink/shower.

PRODUCT	UNIT OF ISSUE	PRODUCT CODE
Drain Disinfectant	24 x 30g	CSDD24AUS

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