

The Issue: Healthcare-Associated Infections

From acute care hospitals to physical therapy clinics, healthcare-associated infections (HAIs) are a major threat to patient safety—even though they're often preventable. Each year, thousands of people die or experience complications due to HAIs such as MRSA, CRE and ESBL.



There were an estimated **687,000 HAIs** in U.S. acute care hospitals alone in 2015.

Source: Centers for Disease Control and Prevention

It's estimated that **90,000 patients die** annually due to HAIs.

Source: Dove Medical Press



The cost of HAIs to hospitals is estimated to be as much as **\$45 billion.**

Source: Dove Medical Press



A single ESBL infection results in more than **\$40,000** of excess hospital charges, and around **26,000** of these infections occur each year.

Source: Centers for Disease Control and Prevention



9,000 CRE infections occur annually and they result in more than **600 deaths per year.**

Source: Centers for Disease Control and Prevention

13% of severe HAIs caused by **P. aeruginosa** are multi-drug-resistant, meaning nearly all antibiotics **no longer cure these infections.**

Source: Centers for Disease Control and Prevention



In 2011, there were more than **80,000 invasive MRSA infections** and 11,285 related deaths.

Source: Centers for Disease Control and Prevention

HAIs and Electrodes

Whether it's due to lack of awareness, disregard for best practices, or non-standardized cleaning methods, the use of electrodes can turn into breeding grounds for bacteria.

A study of hospitals throughout the U.S. found **human cells on 60.5%** of used electrodes.

Source: American Journal of Infection Control



A study of manually cleaned electrode lead wires found **51.4% were contaminated** with bacteria or risk pathogens.

Source: GMS Hygiene and Infection Control

It's estimated the **risk of death** is **7 times more likely** for patients exposed to reusable medical devices, such as electrodes.

Source: Hospital Pharmacist



The Scientifically-Tested Solution: MicroBlock Antimicrobial Electrodes

MicroBlock antimicrobial electrodes are the only electrodes specifically designed to kill and inhibit the growth of bacteria on and around the electrode.

New, independent research has shown that MicroBlock's antimicrobial gel, featuring Benzethonium Chloride (BEC) and an acrylic hydrogel, effectively fights dangerous bacteria. MicroBlock is the safe, simple way to keep patients healthy.

The MicroBlock is more than **99% effective** in reducing:

- E. Cloacae (CRE)
- S. Aureus (MRSA)
- E. Coli (ESBL)
- E. Faecalis (VRE)
- P. Aeruginosa and A. Baumannii (Multidrug Resistant)



The MicroBlock's antimicrobial gel demonstrated more than a **4 log₁₀ reduction** against each of these microorganisms.

A **log reduction**, or log kill rate, is the standard for measuring infection prevention. A 4 log₁₀ reduction **kills 100 times more pathogens** than a 2 log₁₀ reduction.



Source: Microchem Laboratory