



# BIOCOTE DELIVERS 95% REDUCTION IN BACTERIA IN A NURSING HOME



The control of healthcare-associated infections (HCAIs) remains a challenge for care home providers. This involves employing a combination of infection prevention and control strategies, including hand hygiene, cleaning, training and the adoption of new technologies, to tackle the problem.

By selecting Gainsborough Specialist Bathing to provide assisted baths, care homes have the advantage of integrated BioCote antimicrobial technology to enhance infection control. This results in CQC compliance and strengthened duty of care.

Like in hospital settings, outbreaks of MRSA and other harmful bacteria are a continuous threat. Nursing home acquired infection is complex with a range of contributing factors including chronic illnesses, recent hospital admission, the presence of healthcare workers, care provided by family members and the use of antibiotics.

The introduction of the Health and Social Care Act 2008 and the Care Quality Commission has led to health and social care establishments implementing infection control strategies aimed at breaking the chain of cross-contamination between sources of harmful bacteria and patients.

BioCote works with manufacturers such as Gainsborough Specialist Bathing to incorporate silver ion technology into their products at the time of manufacture, making the surfaces of the finished products antimicrobial. Antimicrobial Gainsborough bathing solutions are being used by the medical community to reduce both levels of contamination and HCAIs in the healthcare environment.

### STUDY

During refurbishment of a nursing home in Leicester, one residence, comprising of a bedroom and bathroom was refitted with a range of BioCote treated antimicrobial products (Unit A) and another with untreated, comparable products, to serve as the control (Unit B).



Gentona bath with integrated BioCote technology as standard

Both units were occupied by single residents for the length of the study and were cleaned by nursing home staff on a daily basis.

Swabs were collected from treated and untreated surfaces located in the bedroom and bathroom of each unit over a five month period. They were processed for total counts of bacteria and results expressed as average counts of colony forming units (CFUs). A number of untreated products were also positioned and swabbed in unit A.

Specialist advisors from Gainsborough are standing by to assist you:

01527 400 022

info@gainsboroughbaths.com www.gainsboroughbaths.com

**GAINSBOROUGH** Specialist Bathing

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# SCIENTIFIC RESULTS

## ANALYSIS

- The average difference in bacterial counts between all BioCote treated products in Unit A and all untreated products in Unit B was 94.8%.
- The average difference in bacterial counts between all BioCote treated products and all untreated products in the bathroom areas was 92.4%.
- The average bacterial count per swab collected from Unit A before the inclusion of BioCote treated products was 2375 CFU and during the study was 65 CFU. The average bacterial count per swab collected from Unit B during the study was 1952 CFU.



**UNIT A (BATHROOM)**  
with a number of BioCote treated products

**65 CFU**  
Average bacteria count per swab

**92.4%**  
overall average bacteria reduction  
in the bathroom

**UNIT B (BATHROOM)**  
with untreated BioCote products

**1952 CFU**  
Average bacteria count per swab

## DISCUSSION AND CONCLUSIONS

This study provides evidence that products treated with silver ion antimicrobial technology, such as Gainsborough baths, can reduce contamination in the nursing home environment. Results showed there were fewer bacteria contaminating the surfaces of both treated and untreated products in Unit A.

The untreated products in Unit A also harboured less bacteria than their equivalent products in Unit B. The lower bacterial counts on BioCote treated surfaces may have resulted in the lower counts on untreated surfaces, because there were fewer bacteria being transferred from one to the other.

Using a number of antimicrobial objects in a healthcare environment may, therefore, help the decontamination of the wider environment.

Both treated and untreated products were cleaned according to the same regime, so whatever decontamination was achieved by the BioCote products was in addition to the effect of normal cleaning. BioCote treated Gainsborough baths can be used alongside cleaning practices to help sustain low levels of bacteria on surfaces and in the wider healthcare environment.

A reduction of 95% in bacterial contamination can be viewed as a

desirable feature of a nursing home environment. A number of studies have shown that cleaning and decontamination may help reduce nursing home-acquired infections.

Further research will continue regarding clinical outcomes, however Gainsborough baths are already regarded as essential complementary solutions for enhanced infection control and CQC compliance.



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