

# **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 Abacus Specialist Bathroom Solutions to provide assisted baths, care homes, rehabilitation facilities and domestic bathrooms have the advantage of integrated BioCote antimicrobial technology to enhance hygiene for bathers.



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 the Gainsborough Healthcare Group to incorporate silver ion technology into its Abacus baths during production – making the surfaces of the finished products antimicrobial.

Antimicrobial Abacus bathing solutions are being used by the medical community to reduce both levels of contamination and HCAIs in the healthcare environment. This high level of protection is also available for bathrooms within the home environment – offering advanced hygiene control and reassurance especially to bathers with weakened immune systems, children and their families and carers.

#### 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).

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.



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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 bedroom areas was 97.2%.
- 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 B (BATHROOM)

with untreated BioCote products 1952 CFU

Average bacteria count per swab

UNIT A (BATHROOM) with a number of BioCote treated products 65 CFU Average bacteria count per swab

### DISCUSSION AND CONCLUSIONS

This study provides evidence that products treated with silver ion antimicrobial technology, such as Abacus baths, can reduce contamination in the bathroom. 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 92.4% overall average bacteria reduction in the bathroom

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 bathing area 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 Abacus baths can be used alongside cleaning practices to help sustain low levels of bacteria on surfaces and in wider healthcare and domestic environments.

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 Abacus baths are already regarded as essential complementary solutions for enhanced hygiene, CQC compliance and bather and carer well-being.



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Larger Gemini 2000 dual lift bath with BioCote built-in

in ¥ Q+ ►



#### Gainsborough Healthcare Group Life enhancing bathing