

# **Hospital Acquired Infections**

# The facts

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Pathogens can survive on hospital surfaces for days or weeks, making curtains important vehicles for the transmission of pathogens<sup>1</sup>

93%

of tested laundered (fabric) contained bacteria that could result in healthcare-associated infections...

...Traditional hospital laundering practices are not sufficient to remove all viable bacteria<sup>2</sup>

92%

of traditional curtains become recontaminated within 1 week<sup>1</sup>

0

C.difficile spores & MRSA can survive on surfaces in excess of 5 months<sup>3</sup>



Contamination occurs rapidly after curtains are placed in the hospital environment<sup>1</sup>

- Ohl, Michael; Schweizer, Marin; Graham, Maggie; Heilmann, Kristopher; Boyken, Linda; Diejema, Daniel "Hospital privacy curtains are frequently and rapidly contaminated with potentially pathogenic bacteria" American Journal of Infection Control (2012)
- Karen McIntyre "Hospital Laundering Practices linked to HAI's" www.nonwovenindustry.com (May 2013)
- Kramer, Axel; Schwebke, Ingeborg and Kampf, Günter "How long do nosocomial pathogens persist on inanimate surfaces? A systematic review" BMC Infectious Diseases (2006), 6:130

# endurocide. ANTIMICROBIAL & SPORICIDAL CURTAINS

# The world's first Antimicrobial & Sporicidal Disposable Curtain

Effective against:

- ✓ Spores
- Mycobacteria
- ✓ Bacteria
- ✓ Fungi

Disposable hospital curtain with antimicrobial and sporicidal effectiveness of up to 2 years\*

# Benefits & advantages

Endurocide Antimicrobial & Sporicidal Curtains® significantly reduce the risk of hospital acquired infections (HAIs) being transferred via curtains by care workers, patients and visitors.



**PEER REVIEWED** 

fully patented hospital curtain



**OVERALL SAVINGS** 

over 2 years



**REDUCING RISK** 

& staff workloads



NO LAUNDERING

retaining fire retardancy

<sup>\*</sup> Endurocide® Antimicrobial & Sporicidal Curtains have been independently tested to remain antimicrobially and sporicidally effective for up to two years in-situ. However, actual length of curtain use will depend on individual hospital practices and the risk of the curtain being soiled from items such as blood, urine and general spills. Curtains should be replaced when visibly soiled. Timescales are given as guidelines only.

# Testing & trials To validate our claims, Endurocide® Antimicrobial & Sporicidal Curtains have been independently tested in the laboratory to international standards. In addition, the curtains have undergone successful peer review trials in the UK, Australia, South Africa, South America and the Middle East.



#### 1 Sporistatic & Bacteriostatic Testing

Qualitative "Zone of Inhibition" tests demonstrate that the fabric is sporistatic and bacteriostatic and whether it can prevent pathogens from growing and reproducing on treated fabric.

#### 2 Sporicidal & Bactericidal Testing

Quantitative tests to demonstrate that the treated fabric is capable of killing spores, bacteria and fungi.

#### **3 One Year & Two Year Testing**

Tests conducted on the Endurocide® Antimicrobial & Sporicidal Curtain fabric one year and two years after manufacture, to demonstrate that the treated fabric remains active and effective.



Endurocide® Antimicrobial & Sporicidal Curtains are tested and proven to be effective against the following pathogens:

#### **Spores**

C. difficile

#### Mycobacteria

Mycobacteria tuberculosis

#### Fungi

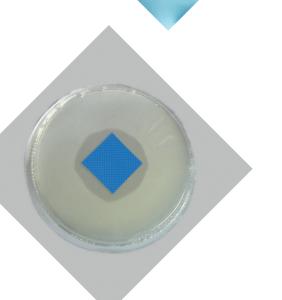
- Aspergillus niger
- Candida albicans
- Candida auris

#### Viruses\*

- H1N1 Influenza A Virus (Swine Flu)
- Measles
  - \*Tested against liquid

#### **Bacteria**

- Acinetobacter baumanii
- E.hirae
- **E**.coli
- Extended-Spectrum Beta-Lactamase (ESBL) E.coli
- Extended-Spectrum
   Beta-Lactamase (ESBL)
   Klebsiella pneumoniae
- Klebsiella pneumoniae
- Methicillin-resistant Staphylococcus aureus
- Pseudomonas aeruginosa
- Salmonella choleraesuis
- Salmonella typhimurium
- Vancomycin-resistant
   Enterococcus faecalis



# Advanced patented infection prevention technology

# How Endurocide® Antimicrobial & Sporicidal Curtains work

Unlike traditional polyester curtains or untreated curtains that **can store bacteria**, Endurocide® curtains are impregnated with a patented liquid formulation that **traps and kills pathogens** on the surface of the curtain, helping to prevent the fabric from becoming a source of pathogenic transmission.

Endurocide® Antimicrobial & Sporicidal Curtains are the next generation of hospital curtains. Proven to be effective against spores, bacteria and fungi



Hand touches contaminated surface and picks up pathogens



Contaminated hand touches an Endurocide® Antimicrobial & Sporicidal Curtain - pathogens may be transferred to the curtain surface



The Endurocide® curtain is

SPORISTATIC - pathogens are
trapped and unable to escape



The Endurocide® curtain is also SPORICIDAL - pathogens are killed



The Endurocide® curtain prevents potential retransmission of pathogens to other people or surfaces - breaking the chain of infection

## **TRAPS & KILLS**

Sporistatic
Bacteriostatic
Fungistatic

Sporicidal Bactericidal Fungicidal

International verification standards used:

AATCC147

AATCC100 JIS Z 2801

# Independent Peer Review 2-year Trials

#### 1 American Journal of Infection Control 24 month trial

In 2016, a report was published in the American Journal of Infection Control testing the antibacterial efficacy of Endurocide® Antimicrobial & Sporicidal Curtains 24 months after installation.

Organised by one of Australia's largest public health services, every six months over a period of **twenty-four months** Zone of Inhibition and Contact Inhibition testing was carried out against a range of multiresistant microorganisms, including:

- Gram positive bacteria (MRSA, VRE *E.faecium*)
- Gram negative bacteria (Pseudomonas aeruginosa, ESBL E.coli)
- Fungi (Candida albicans)
- Spores (Clostridium difficile)

\*The cost savings were based on comparing the use of Endurocide® Antimicrobial & Sporicidal Curtains with traditional cotton cubicle curtains, not only in regards to the initial purchasing costs but to the saving of labour and laundering over two years.

COST REDUCTION 50%

Excellent results were achieved... when tested at baseline, **6, 12, 18 and 24 months**.

There were cost benefits for replacing standard fabric curtains with Endurocide® Sporicidal and Antimicrobial Curtains... cutting the overall cost by more than 50%\*



Comparison of bacterial loading of Endurocide® Antimicrobial & Sporicidal Curtains against traditional cotton curtains used in-situ in a hospital ward. After 10 days swabs were taken from the edge of each curtain.

#### **Results:**

Traditional Curtain	Endurocide® Antimicrobial & Sporicidal Curtain	
MORE than > <b>150,000</b> CFUs	LESS than < 30 CFUs	

#### **3 European Peer Review Trial 2**

Comparison of bactericidal properties of Endurocide® Antimicrobial & Sporicidal Curtains fabric and untreated polypropylene.

#### **4 NHS Hospital Trial**

Evaluation by a leading NHS hospital trust in England comparing Endurocide® Antimicrobial & Sporicidal Curtains against traditional polyester curtains across two busy wards throughout an 8 week period.



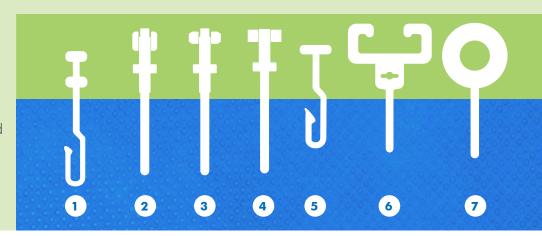
If your hospital would like to conduct its own trial please get in touch:

Tel: +44 (0) 1561 361515 info@endurocide.com endurocide.com

# Options & specifications

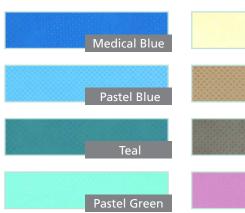
# Hanging systems

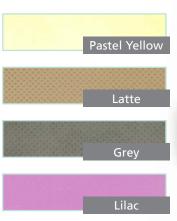
- 1 Quick-fit
- Wheeled
- Wide-wheeled
- 4 Metal bar wide-wheeled
- 5 Large-top
- 6 U-type
- 7 Eyelet extension hook



## Curtain colours

#### **Standard Colours**





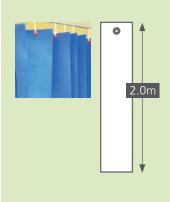


Other colours available on request

## Curtain types

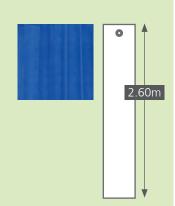
#### Standard

100% polypropylene, designed for use with suspended ceiling rails



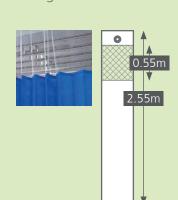
## Longdrop

100% polypropylene, designed for use with ceiling-fixed rails



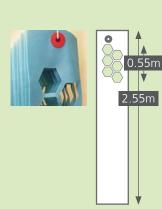
# Meshtop

With NFPA 13 compliant mesh, designed for use with ceiling-fixed rails



#### Mesh cut

An economical alternative to the traditional meshtop curtain



### Features & benefits

Long lasting (up to 24 months) 

Breaks the chain of infection 

No laundry costs

Fitted with tiebacks

Self-auditing & privacy labels

100% recyclable

No track conversion

**S** Lightweight

Fire retardant\*

#### Where to use

Designed for critical hospital and healthcare environments where patient care cannot be compromised. Suitable for use in hospital departments such as:

- Burns units
- Cardiology wards
- Intensive care units
- Infectious disease units

- Oncology wards
- Renal units
- Maternity & neonatal
- High dependency units

- Operation suites
- Obstetrics
- Rheumatology
- Gynaecology

- General surgery wards
- Isolation wards

## Curtain dimensions

	Standard	Mesh top	Mesh cut	Longdrop
Height	2.0m	2.55m (includes 0.55m mesh)	2.55m	2.6m
Full width	7.5m	7.5m	7.5m	7.5m
Medium width	5.55m	5.55m	5.55m	5.55m
Half width	3.75m	3.75m	3.75m	3.75m
Pleat width	0.15m	0.15m	0.15m	0.15m

#### Your local distributor

Manufactured by



Bio Technics Ltd.

Linton Business Park, Gourdon, Aberdeenshire, Scotland, UK DD10 0NH Tel: +44 (0) 1561 361515 info@endurocide.com endurocide.com

Endurocide® is the healthcare division of Bio Technics Ltd, based in the UK. Endurocide® is a Registered Trademark of Bio Technics Ltd.









<sup>\*</sup>Meets international standards: NFPA 701, AS 2755.2 - 1985, BS 5867 Part 2 Types B & C 2008, AS 1530.2-1993 Part 2: Test for Flammability of Materials and CAN/ULC-S109