

Why Anti-microbial Protection Remains Crucial in Fight Against Infection

You can't always believe what you read in the media.

One week, a newspaper might be telling us we are winning the fight against MRSA – an infection that still brings chills to anyone with experience of a hospital in recent times. But any such story is quickly followed up by warnings of another 'superbug' taking over as the dreaded one to watch.

Here, Stephe Ward, Senior Marketing Executive at world-leading labelling and print company, Denny Bros, talks us through the current situation and why anti-microbial protection is a valuable piece in the armoury against healthcare infections.

The Current Situation

Recently, *Clostridium difficile* (C-diff) appears to have taken over as the most dangerous of hospital-acquired infections. It is true that the number of healthcare-associated infections (HCAI) in UK hospitals remain relatively low – and a lot of credit must go to NHS Trusts remaining vigilant and guarding against complacency. But these ever-changing headlines also show the climate of infection is also always changing. Strands of potential superbugs are developing all the

time and everything must be done to ensure they don't become a topic of hot – and daunting – conversation once more.

Cost and the Global Threat

An obvious knock-on effect is the cost of tackling such infections. In the UK, these costs are estimated to be in the region of £1 billion a year, at a time when healthcare budgets appear to be permanently squeezed. The issues remain a big threat globally. The 20th Annual Superbugs & Superdrugs Conference in London on 19th–20th March 2018 has been designed to raise awareness and highlight various strategies to ensure a global commitment to tackle the ever-increasing problem of multidrug-resistant bacteria.

Such a conference is to be welcomed, as every relevant party must work together to tackle problems in the pharmaceutical industry. This year's event will gather leaders from pharmaceutical companies, academia and the wider scientific community together with regulatory agencies and public-private partnerships, to discuss the growing threat of antibiotic resistance. On the agenda will be discussions around the various strategies in place to support antimicrobial resistance research and development, evaluate

the latest scientific advancements for tackling antimicrobial resistance, and consider potential novel candidates and alternatives to antimicrobials. According to the event website, it will also focus on the strategies pharmaceutical companies use to assist the development of new therapeutics and drugs, how to obtain funding for new projects and address why there is a current lack of incentives for researchers working in antimicrobial resistance research and development. But the measures to tackle such threats are increasingly becoming more resolute.

How does Antimicrobial Protection Work?

One such recent advance has been the ability to add antimicrobial protection to a range of labels and patient information leaflets (PILs). This has given a much broader scope of protection than existing





antibacterial properties with the overlay resistance coupled with important safety advice, dosage details and legal information. The fact that the instructions can be in multiple languages is another distinct advantage. This antimicrobial protection adds another layer and pushes hygiene standards up even further for pharmaceutical manufacturers and even food producers.

The introduction of antimicrobial properties into the varnish of labels and leaflets will give even greater levels of protection from unwanted bacteria. This feature helps limit the emergence and spread of superbugs such as MRSA, E-coli, Salmonella, Listeria and Legionella and severely reduces the growth of any microorganisms, fungi or mould. Antimicrobial properties work continuously and effectively to restrict growth before it appears. It eradicates the bacteria which cause contamination and infection.

As bacteria can be carried on both personnel and equipment, it is in the healthcare providers' interest to limit the possible transfer of any

bacteria from containers to medical staff or directly to patients. The antimicrobial properties contain silver to create additives for use in almost any material where hygiene, performance or aesthetics are important, while it is even unaffected by cleaning chemicals such as chlorine bleach, disinfectants and alcohol.

How Effective Is It?

Products containing anti-microbial properties are routinely tested at an independent laboratory and are typically proven to be at least 99.9% effective against MRSA and *E-coli*. Once an anti-microbial floodcoat has been applied, it is essentially there to stay. Ionic silver-based additives will not lose efficacy due to leaching or migration, and since they are evenly dispersed throughout the material, even scratches and abrasion do not affect the antimicrobial performance. Importantly, anti-microbial additives are unaffected by cleaning chemicals such as chlorine bleach, disinfectants and alcohol. Even harsh industrial products like MEK (methyl ethyl ketone) do not diminish the antimicrobial properties of products containing this property.

Why Choose Anti-microbial Protection?

Independent testing has proven anti-microbial additives to be effective against a huge range of bacteria including MRSA, E-coli, Salmonella and Legionella. But the purpose of this property is not to create a sterile environment as we all know that being exposed to certain types of bacteria builds a healthy immune system. But bacterial infections such as MRSA and Listeria can be very serious and anti-microbial properties act as a complimentary measure. The main function of an antimicrobial protection is to offer continuous and permanent protection against microbes which can cause contamination, odours and degradation.



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