

ANTIMICROBIAL TECHNOLOGY USE ADVOCATED

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Increased use of antimicrobial technologies could have major importance in the fight against the spread of bacteria in the healthcare environment. Maintaining an effective infection control regime is essential, and this is recognised by patients who are being given choice as to where they are treated. TREVOR PAYNE reports.

The benefits that well-managed estates and facilities management (EFM) services can bring are now widely recognised, evidenced and acknowledged by the NHS.

External pressure from politicians, patients and the public are continuing to challenge service provision, questioning the reliance on the private sector for provision of facilities management (FM) services. This includes cleaning and housekeeping, backed by perceptions of reduced numbers of cleaning staff and the media focus on increasing numbers of methicillin resistant *Staphylococcus aureus* (MRSA) and other hospital-acquired infections (HAIs), despite all of the investment in new buildings and staff. Often these views are set against a backdrop of raised healthcare/consumer awareness and public expectation. Coupled with this is the unresolved Private Finance Initiative (PFI) versus public-funded development debate. On one hand, the hospital building programme and its reliance on the private sector and PFI or Local Improvement Finance Trust (LIFT) development has already delivered a significant change in the service, challenging traditional NHS estate management and cultural dynamics. On the other hand, as a result, many hospitals are now owned and operated by the private sector, leading to concerns regarding “whole-service NHS consistency” and standards relating to key indicators such as HAIs and MRSA.

Despite the agenda for change, this public/private division is compounded further by the ongoing two-tier workforce approach to pay and conditions. However, the recently agreed joint statement between the Department of Health (DH), NHS employers and trade unions will start to resolve this problem. Many of these issues are only just starting to hit home as real-time feedback and evidence is generated from the first wave of PFI schemes – which have entered the operational phases – following construction of new hospital facilities. This feedback will either dispel or confirm the PFI myths.

All parties – public, private, staff and patients – are grappling with this new mode of operation.

This evolution has demanded the development of new skills to take control of this environment in order to embrace an “informed client” approach to EFM culture and contract management and the development of an evidence base relating to costs, value for money and operational commentary on how these new hospitals are running – demonstrating the impact that they are making to patient outcomes. Benchmarking these projects requires a more focused and corporate NHS approach in the future. Even in the carefully negotiated and relatively new PFI market, changes are already impacting and new hospitals are already being extended or adapted in order to ensure the building supports current healthcare provision (financial close to construction

completion can typically take two to three years on most schemes – during which time operational policies and healthcare provision has often modified and moved on or embraced new technology).

PATIENT CHOICE

Patients are now able to access information from the public domain on healthcare establishments and choose where they want to be treated. The information contains a range of clinical indicators, outcomes, infection rates and mortality etc. In addition to clinical indicators or outcomes, it is still uncertain, due to the lack of conclusive evidence, what the public will base their option to choose on. It is widely accepted that patients will also make a choice based on factors that they know, understand, hold dear and are able to comment on, such as cleanliness, site access and car parking, Patient Environment Action Team (PEAT) scores, hospital catering, age/condition of the hospital and so on.

The high numbers of reported incidents of HAIs and MRSA have fuelled public and political perceptions regarding hospitals and the healthcare environment, leading to reduced confidence in the NHS. Sometimes it seems that hardly a day goes by without the media running a story relating to MRSA, superbugs or HAIs. England has the highest MRSA rates in Europe. Infections in general account for 70,000 deaths a year, while HAIs are estimated to contribute to the deaths of around 5,000 patients, with up to a third being preventable.

Until now, 16 epidemic strains of MRSA have been identified in the UK and, although the problem is worldwide, rates of MRSA are much higher in England compared with other European countries. To put these figures into context, the NHS treats one million patients a day, admits eight million patients each year and deals with 14 million accident and emergency visits each year.

There are a number of factors that need to be focused on to improve the current position in reducing HAIs, and these are the three Ps: process, place and people:

- Operational (process): hand hygiene, basic cleanliness, staffing, training and operational policy/procedure.
- Design/environmental (place): design and ward layout, isolation facilities, uniforms and selection of finishes and materials.
- Human factors (people): continuing involvement of modern matrons – the matron's charter and the ability to control and influence cleaning and standards. It is also important to recognise the need to integrate cleaners and housekeepers into the ward team – even if they do not work directly for the Trust – to assist in improving awareness.

ANTIMICROBIAL TECHNOLOGY

Innovation and a fresh evidence-based approach are required, utilising methods used by our European partners who benchmark much better than the UK on HAI rates. One example of a safe, affordable and easy-to-implement technology is the one concerned

with antimicrobial effects. The use of silver ion technology can provide enhanced round-the-clock protection within the patient environment – a coating is applied to an article/fabric or finish which kills bacteria and prevents the spread of germs that come into contact with the treated surface.

Antimicrobial technology is a growing market with many astute and forwardthinking healthcare equipment suppliers already incorporating the technology into their products. There are now 40 major NHS suppliers that have incorporated silver ion technology into their product range and a small number of UK Trusts are pioneering the utilisation of this technology in order to develop an evidence base.

Heartlands Hospital in Birmingham is currently clinically trialling an MRSA-free ward using silver ion technology.

SECOND LINE OF DEFENCE

As evidence is produced to substantiate the claims made about the effectiveness of antimicrobial products, there can be projected a future scenario in which all goods destined for the clinical environment will be given an antimicrobial coating, providing protection during the operational life of the products.

Some major healthcare suppliers have embraced this view along with the technology currently available. In effect, this approach will assist in the provision of an environment of care that is free from MRSA, for example. Those procuring products may insist these incorporate antimicrobial technology.

While there has been considerable focus and policy produced on NHS cleanliness standards and MRSA, which have improved and informed cleaning service specifications, a Trust could still have the best cleaning specification in the UK but, without effective cleaners and rigorous monitoring, a hospital could remain dirty and susceptible to HAIs including MRSA. This is where the real benefit of antimicrobial technology comes in. The technology is not intended to replace physical cleaning or cleaners, but to act as a second line of defence, working on all treated surfaces safely and consistently, preventing the growth or proliferation of germs and bacteria.

So, even with factors such as staff being absent through sickness, and good cleaning effectiveness not being achieved, antimicrobial coatings will continue to keep bacterial growth in check in the background.

A focus on developing evidence that shows the benefits of informed design and a well-trained, effective EFM workforce, is required. Attention should be drawn to the advantages that are gained when EFM and nursing ward teams work together. Producing evidence relating to defined and developed cleaning specifications, and using evidence-based technology and materials, all of which combine to create a safe and supportive patient environment, will go a long way to informing improvements and process to regain patient and public confidence, and assist in informing patient choice.

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