

Clean, safe care

Reducing infections and saving lives



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Foreword

by Alan Johnson MP

Secretary of State for Health



I want the same from the NHS as everyone else, not just as Secretary of State for Health but as a patient too. This document is a testament to the fact that the NHS has already come a long way on the road of

tackling healthcare associated infections. But we need to go even further to ensure that everyone gets clean, safe care.

Healthcare associated infections still present us all with a great challenge. They are everyone's responsibility – from the chief executive, to the cleaner, the clinician, the public and me. We all have our part to play in helping to prevent infections, halting their spread and treating them if they do occur.

Although the chances of acquiring a healthcare associated infection are relatively low, when a patient does it is extremely distressing for them, their family and the NHS staff treating them.

Infection is also costly. On average, it adds three to ten days onto a patient's length of stay in hospital, and for *Clostridium difficile* (*C. difficile*) that stay will be even longer. Financially it can cost between £4,000 and £10,000 more to treat a patient with an infection.

I am concerned that we take action to boost public confidence in the NHS's ability to tackle healthcare associated infections and provide clean environments for patient care. Events like those that took place in Maidstone and Tunbridge Wells and Stoke Mandeville were a tragedy for those affected and a setback for the NHS. We must make sure that NHS organisations implement comprehensive infection prevention and control strategies to ensure that they do not find themselves in the same tragic situation.

But I also know that this is definitely an issue where one size does not fit all and it is not a problem that is unique to England. Healthcare systems across the world are facing the same challenges that we are and are using a range of methods to tackle infections. We need to see what other countries are doing and learn from them. That is why we have looked at what the Dutch do to tackle meticillin-resistant *Staphylococcus aureus* (MRSA) using their 'search and destroy' strategy and adapted it to suit the situation in England by, for example, introducing universal screening for MRSA for all admitted patients over the next three years.

The NHS also faces additional challenges in comparison with private healthcare providers, who do not have to treat emergency admissions. These increase the rate of infection but we have already made a great deal of

progress in reducing the number of emergency admissions by, for example, focusing on patients with long-term conditions.

So, what we need to do is equip the NHS with the tools it needs to take on the problem of healthcare associated infections and win. We are currently in the middle of a £57 million programme of deep cleaning every hospital in the country which will be complete by the end of March. This is a key part of instilling a culture of cleanliness in the NHS.

As set out in the NHS Operating Framework for 2008/09, improving cleanliness and reducing healthcare associated infections is one of the NHS's top priorities. NHS organisations will have to reduce the annual number of MRSA bloodstream infections to less than half the number in 2003/04, and by 2011 there will need to be a 30% national reduction in *C. difficile* infections from 2007/08. Both these targets are extremely challenging but essential.

I do want to take this opportunity to celebrate the great deal that has already been achieved by the hard work and dedication of all NHS staff.

We have reduced the rates of MRSA bloodstream infections significantly and we are beginning to see improvements in *C. difficile* rates. Latest Health Protection Agency data show a drop of 10% in MRSA bloodstream infections compared with the previous quarter, a continuation of the downward trend. In the 65 and over group, the data show a 7% fall in *C. difficile* infections compared with the same quarter last year.

As a result of our Comprehensive Spending Review settlement, we are able to invest £270 million per year by 2010/11 to support infection prevention and control and improving cleanliness in the NHS. This is in addition to the money the NHS has already invested in better training and education, upgrading isolation facilities, new equipment and better surveillance.

Understandably, the main focus has been on acute trusts, but it is the responsibility of primary care trusts, strategic health authorities and other providers too. Infection control strategies are only going to be successful if all parts of the NHS work closely together with the shared aim of reducing infection. I want the NHS across all health communities to use this strategy to develop approaches that will yield success for their organisations, ensure patient safety and greatly reduce the risk of infection.

I am proud of what the NHS has achieved so far, but this is not an issue where we can ever afford to be complacent. I want to see the NHS take tackling infections to the next level and this document, along with other guidance, is intended to help them with this aim. I also want to reassure patients and the public that the Government and the NHS will continue to do all we can to tackle infection.

A handwritten signature in black ink that reads "Alan Johnson". The signature is written in a cursive style with a long horizontal stroke extending from the top of the "A".

Alan Johnson MP
Secretary of State for Health

1. Introduction

- 1.1 Patients have a right to clean and safe treatment wherever and whenever they are treated by the NHS. Safety in healthcare is a top priority for the NHS, and this must be an essential element of every procedure in the NHS so that patients have the confidence they need in the care they receive. Reflecting the importance of safe care to patients, public and staff, it is a key theme of the NHS Next Stage Review, as set out by Lord Darzi's interim report, *Our NHS, Our Future*, in October 2007.
- 1.2 One area of particular concern is tackling the problem of healthcare associated infections (HCAIs) and improving cleanliness in hospitals. The two are often linked, and rightly so – cleanliness contributes to infection control, and a clean environment is the best platform from which to tackle HCAIs. Furthermore, clean environments are extremely important in their own right, and are central to patients receiving comfortable, reassuring and welcoming care. This is why a deep clean of every hospital in the country is so important.
- 1.3 However, it is also important to understand that preventing infections requires more than just cleanliness. A range of measures need to be in place, from prudent antibiotic prescribing to implementing best practice in chronic wound management, and only a comprehensive approach will succeed in driving down infection numbers.
- 1.4 Consistent with the theme of the NHS Next Stage Review and the Operating Framework for 2008/09, the purpose of this document is to support local organisations to address the particular issues that face them in their areas. It sets out where there are national expectations and requirements – such as the new target for *Clostridium difficile* (*C. difficile*) or the requirement for the NHS to have 5,000 matrons by May 2008 – but also guides NHS organisations as to the actions and investment that will be most effective in continuing to tackle infection and improve cleanliness in their local area.
- 1.5 It is important that action in this area is taken across a whole health economy. Providers – particularly acute trusts – will inevitably be the focus for action on cleanliness and infection. Primary care trusts (PCTs) also have a crucial role not only as providers of care, but particularly in their role as the local leader of the NHS and commissioner of care for their local population. Strategic health authorities (SHAs) too play an important role – not just in performance management but also acting to spread best practice and supporting providers and commissioners. Close collaboration between SHAs, PCTs

and providers will be instrumental in sustained improvement.

1.6 The document is also written with patients, public and staff in mind. It should give patients an idea of what to expect when they come in contact with the NHS, the public an understanding of what the Government and the NHS are doing to tackle HCAs, and staff information on their and their organisations' obligations and responsibilities in relation to infections and cleanliness.

Context

1.7 Tackling HCAs has been a high-profile area in the NHS – with a particular focus on meticillin-resistant *Staphylococcus aureus* (MRSA) and *C. difficile* – since the publication of the Chief Medical Officer's *Winning Ways* report in December 2003. Following on from this has been action in a number of areas, including:

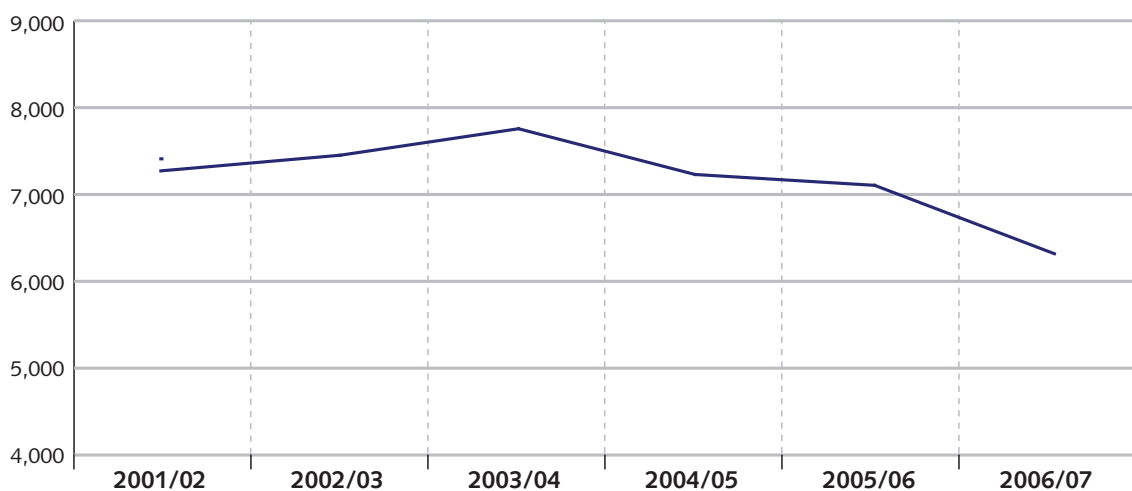
- setting the NHS a challenging target in 2004 of reducing MRSA bacteraemia (bloodstream infection) numbers by 50% by the end of 2007/08;

- an increased focus by the Healthcare Commission, including introducing statutory requirements on cleanliness and infection prevention and control for the NHS in the Health Act 2006;
- a Department of Health national programme and improvement team supporting individual trusts facing the biggest challenges and producing best practice guidance for the NHS; and
- working with the Health Protection Agency (HPA) to introduce the most comprehensive surveillance system of HCAs in the world.

1.8 This action has meant that the NHS is currently on course to hit the MRSA target by March 2008, and that we are beginning to see early signs of promise on *C. difficile* numbers.

1.9 The scale of the improvements seen, particularly on MRSA rates, should not be underestimated and the NHS and its staff should rightly be congratulated on progress so far. This view is backed up by health experts; Dr Georgia Duckworth, head of the HPA's HCAI department,

Figure 1: MRSA bloodstream infections



Note: Numbers of MRSA cases have fallen each year since 2003 and data from the first half of 2007 show a continuing decline in numbers.

Source: Health Protection Agency, MRSA mandatory surveillance scheme.

commented on the latest data that: 'This is a major achievement against the seemingly unstoppable rise in MRSA bloodstream infections throughout the 1990s.'

Going forward

1.10 Despite the considerable progress made since 2004, there is still a long way for the NHS to go, particularly in ensuring that the encouraging progress on *C. difficile* is translated into long-term reductions of infection numbers. There have also been some isolated incidents in the NHS where there have been significant failings – at Stoke Mandeville Hospital and Maidstone and Tunbridge Wells NHS Trust – and there is a responsibility on the Government and the NHS to ensure that such situations do not arise again.

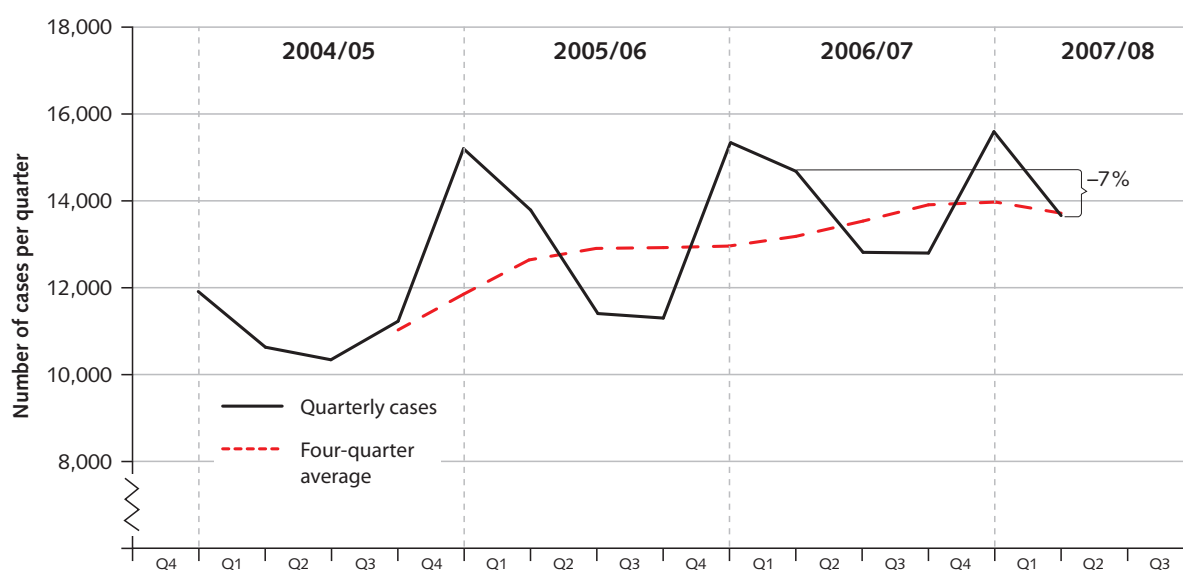
1.11 This is why the recent Comprehensive Spending Review (CSR) set a new target to reduce *C. difficile* infection numbers by 30% over the next three years and provided an investment of £270 million per year by 2010/11 to support

continued progress in tackling HCAs and improving cleanliness.

1.12 There has been a number of initiatives announced recently that will support the NHS in this continued improvement, including:

- introducing screening for MRSA for all elective admissions by March 2009 and for all emergency admissions as soon as possible within the next three years;
- annual infection control inspections of all acute trusts using teams of specialist inspectors;
- a new regulator – the Care Quality Commission – to be set up in 2009 with the power to impose fines on poor performers;
- 5,000 matrons in place in the NHS by May 2008;
- a new bare-below-the-elbows dress code for hospitals; and
- every hospital to have undergone a deep clean by March 2008.

Figure 2: *C. difficile* infections in those aged 65 and over



Note: *C. difficile* rates exhibit large seasonal variation, but there was a steady rise in the average number of cases between 2004 and 2007. However, figures for the latest quarter, April to June 2007, show an encouraging 7% fall in cases compared with the same quarter in 2006.

Source: Health Protection Agency, *C. difficile* mandatory surveillance system.

1.13 These recent initiatives are brought together in this document alongside the ongoing policies and resources that are in place to tackle infection and improve cleanliness. This document also outlines some further areas that NHS organisations need to consider when developing local plans to tackle infections and improve cleanliness. This includes the systems and incentives that are in place, and areas for local and national investment of the additional CSR funding. These include:

- **investing in specialist staff** – additional funding to support PCTs and providers in recruiting additional staff such as infection control nurses, pharmacists and isolation nurses;
- **stringent requirements on NHS foundation trust applicants** – meaning that only top performers on HCAs will be considered for NHS foundation trust status;
- **the national tariff uplift including an element to tackle infection** – meaning that trusts have the resources for further investment;
- **a new national contract** – allowing PCTs to fine trusts that are not hitting local targets on *C. difficile* improvement;
- **promoting innovations** – a range of programmes designed to accelerate the development and uptake of new technologies;
- **guidance on HR procedures to be developed in conjunction with trade unions** – including the importance of induction and training on infection prevention and control for staff; and
- **a cleaning summit held by the NHS Chief Executive** – focusing on the roles and responsibilities of staff in relation to cleanliness.

2. An overview of healthcare associated infections

What are HCAs and how common are they?

- 2.1 HCAs are infections acquired in hospitals or as a result of healthcare interventions. They are caused by a wide variety of microorganisms, often by bacteria that normally live harmlessly in or on our body. While people are most likely to acquire HCAs during treatment in acute hospitals, they can also occur in GP surgeries, care homes, mental health trusts, ambulances and people's own homes – in fact, anywhere that people are receiving clinical treatment.
- 2.2 The overall prevalence of HCAs in England has remained relatively constant over the last 25 years. This is despite great changes in our healthcare, including the fact that many more complex medical interventions are undertaken, and that patients with severe medical conditions are surviving for longer periods. However, the organisms responsible for the infections have changed over time, with new strains developing and others being controlled.
- 2.3 HCAs are a worldwide problem. It is difficult to make international comparisons as different countries use different methodologies for collecting and counting infections. However, since the mid-1980s, studies show that HCAI prevalence in

hospitals – the proportion of current patients in a hospital with an infection – has been steady at around 5–10% in industrialised countries. The overall prevalence of HCAs in England is in line with this at 8.2%.

- 2.4 It is important to note that prevalence is considerably greater than incidence – the proportion of people admitted to hospital who get an infection. For most people, the risk of acquiring an infection is very low, and lower still for those people who spend only one or two days in hospital. The NHS treats a million people every 36 hours and only a tiny proportion of those people will be infected by an HCAI. Some of those people will have already acquired an infection before they come into hospital.

Why do we need to tackle HCAs?

- 2.5 Although the majority of HCAs cause minimal harm and can be treated like any infection, in England we face particular challenges from MRSA and *C. difficile*. This strategy therefore focuses on these infections, but the effective infection control measures outlined in this strategy will also help to tackle other HCAs.
- 2.6 For those people who are infected with MRSA or *C. difficile*, the consequences can be severe. In addition to the unnecessary pain and suffering that they

cause patients and their families, treating HCAs also wastes NHS resources. Evidence suggests that patients with an MRSA bacteraemia spend on average an additional 10 days in hospital and, for *C. difficile*, the additional length of stay is 21 days. Infection can cost a trust an extra £4,000–£10,000 per patient.

MRSA

2.7 About 30% of the population have some type of *Staphylococcus aureus* (*S. aureus*) bacteria living naturally on their skin or in their nose, where it usually does them no harm. MRSA is a strain of the *S. aureus* bacterium which is resistant to commonly used antibiotics and is present in around 3% of the population. It is no more infectious than other strains of *S. aureus*, but can be more difficult to treat and therefore infections may become more severe.

2.8 MRSA can infect surgical wounds and ulcers, and, more seriously, if it enters the bloodstream it can cause bacteraemia, and chest infections can occur, especially in ventilated patients. These infections are likely to be more prevalent and more severe in patients with weakened immune systems, other underlying diseases and central or peripheral cannulae.

2.9 MRSA is usually spread through direct skin-to-skin contact, or by touching materials and surfaces contaminated from someone infected with MRSA. Measures such as hand washing and using alcohol handrub can help reduce the spread, as can isolating or cohorting (treating patients with the same infection in the same area by the same staff) infected patients.

Clostridium difficile

2.10 *C. difficile* is a bacterium that lives in the gut of about 3% of healthy adults in England. It is kept at bay by normal gut

Comparison between MRSA and *C. difficile*

MRSA	<i>C. difficile</i>
Transmitted mainly through contact with colonised skin or contaminated equipment	Transmitted mainly through contact with spores from infected faeces, or contact with contaminated environment and equipment
Eliminated from hands by using alcohol handrub, and cleaning with most disinfectants	Reduced by washing hands with soap and water, and cleaning with chlorine-based disinfectants
Key risk of bloodstream infection is through piercing of skin (e.g. cannula or open wounds)	Key risk of infection is through ingesting spores, together with antibiotic treatment
Survives less well in the environment	Spores survive very well in the environment
Screening for colonised patients is simple (nose and skin swab), and colonisation known to increase risk of infection and transmission	Screening for colonised patients is inappropriate (most potential cases would not be identified, and it requires a stool sample), and colonisation without symptoms is not considered to increase risk of transmission

bacteria; but if those bacteria are killed by antibiotics, *C. difficile* can proliferate. Toxins released by *C. difficile* cause diarrhoea, which can occasionally be very severe and life threatening.

- 2.11 In most cases, the infection develops after cross-infection from another patient. Patients with *C. difficile* excrete large numbers of spores in their faeces which contaminate the environment. *C. difficile* is spread by a person swallowing the bacteria or the spores it produces. Spores transferred to other people can subsequently develop into bacteria that grow in the colon. Over 80% of cases of *C. difficile* infection are in people aged over 65.
- 2.12 Unlike MRSA, *C. difficile* spores are not killed by alcohol, meaning that alcohol handrubs are ineffective. Isolation of infected patients coupled with thorough hand washing before and after coming into contact with a patient, use of gloves and aprons, and cleaning of the ward environment are the measures used for successful prevention and control. People are normally only susceptible to *C. difficile* infection if they are on broad spectrum antibiotics, which kill normal gut bacteria. This is why good antibiotic prescribing practice is particularly important and effective for reducing *C. difficile* infection numbers.

Surveillance systems

- 2.13 The crucial first step in tackling HCAs is to know exactly what we are up against. It is therefore very important to measure the changing rates of specific HCAs, through data gathered by the HPA. This allows us to understand the impact that measures, such as those outlined in this strategy, are having on the number of certain HCAs. It also shows the

organisations that are having problems managing their infection numbers, so that they can be given extra support to step up infection control.

- 2.14 Mandatory surveillance of the number of MRSA bacteraemia cases was introduced in April 2001. In 2003/04, surveillance was extended to cover other key HCAs, such as glycopeptide-resistant enterococci (GRE), surgical site infections in orthopaedic surgery and *C. difficile*-associated diarrhoea in patients over 65 years old. Since April this year, mandatory surveillance of *C. difficile* has been extended to all cases in people aged two years and over to help the monitoring of local targets.
- 2.15 The enhanced MRSA reporting system introduced in October 2005 provides specialty-specific data, and distinguishes whether the bloodstream infection was present on admission. The first phase of an enhanced *C. difficile* reporting system was introduced in April 2007, with further refinement in January 2008.
- 2.16 In January 2007, quarterly publication of mandatory data for MRSA and *C. difficile* was introduced, allowing closer tracking of progress in tackling HCAs. England now has the most sophisticated systems in the world for monitoring MRSA and *C. difficile* infection.

3. Reducing infection along the patient journey

- 3.1 Protecting patients from infection means that all healthcare staff should undertake procedures correctly every time, for every patient, in every healthcare setting. This means that each organisation and each individual within them should conform to clinical good practice to reduce the risk of infection and maintain high standards of patient care.
- 3.2 There are clear activities and processes that impact on infection, and implementing these along the patient pathway can make all the difference in bringing down infection rates.

Tools for the acute setting – Saving Lives

- 3.3 *Saving Lives: reducing infection, delivering clean and safe care* (Department of Health, 2007) provides the tools and resources for acute trusts to embed robust infection prevention and control across their organisation. Every acute trust in England has signed up to this programme. It provides the means for trusts to develop an action plan, implement national guidance and demonstrate compliance and progress against these by using a self-assessment tool and balanced scorecards to reduce all HCAs and improve quality and safety.

- 3.4 High-impact interventions – also known as ‘care bundles’ – are evidence-based tools that allow staff to monitor compliance with clinical guidance and provide feedback so that compliance levels can improve consistently. High-impact interventions provide the means to ensure that staff undertake clinical procedures correctly every time they are needed.

Saving Lives high-impact interventions

The high-impact interventions include guidance and tools for:

- central venous catheter care;
- peripheral intravenous cannula care;
- renal dialysis catheter care;
- prevention of surgical site infection;
- care for ventilated patients (or tracheostomies where appropriate);
- urinary catheter care; and
- reducing the risk of *C. difficile*.

- 3.5 In June 2007, the Saving Lives programme was relaunched to take account of feedback from the NHS and stakeholders. It now includes additional guidance for taking blood cultures, for isolation of patients with HCAs, and for antimicrobial prescribing, and will soon include advice

about the management of chronic wounds. We will continue to revise and update *Saving Lives*, ensuring that good practice is spread across the NHS as quickly as possible.

- 3.6 All of these tools are aligned to the *Code of Practice for the Prevention and Control of Healthcare Associated Infections* (see box) and the *Saving Lives* assessment tool is endorsed by the Healthcare Commission as evidence of compliance with the *Code of Practice*. The programme is also endorsed by leading professional bodies that are associated with infection prevention and control and patient safety.

The Health Act 2006: Code of Practice for the Prevention and Control of Health Care Associated Infections

All NHS bodies are subject to *The Health Act 2006: Code of Practice for the Prevention and Control of Health Care Associated Infections* (commonly known as the 'Hygiene Code'). The code outlines how organisations should work to ensure that patients are cared for in a clean and safe environment. It outlines trusts' duties to establish appropriate systems, assess and manage risks, implement clinical care protocols, ensure healthcare workers' access to occupational health services, and provide induction and training.

Minor revisions have been made to the *Code of Practice*, a revised version of which is published alongside this document. These emphasise the chief executive's responsibility for reporting MRSA and *C. difficile* surveillance data and reflect updated guidance on infection prevention and control. Proposals in the Health and Social Care Bill mean that the *Code of Practice* is expected to apply to non-NHS providers in the future. A full consultation on a revised draft will be held during 2008.

In June 2007, the Healthcare Commission began a programme of unannounced inspections at 120 NHS trusts to check their compliance with the *Code of Practice*. Failure to observe the code may result in an improvement notice being issued by the Healthcare Commission, and if progress is not made, a trust can be placed on 'special measures'.

Building on the programme of inspections, from April 2008, once-yearly inspections on compliance with the *Code of Practice* will occur at every acute trust, using teams of specialist inspectors. This enhanced monitoring reflects the importance that acute trusts need to place on improving cleanliness and reducing HCAs.



Screening patients for MRSA

- 3.7 Around 3% of the public, rising to 6–7% of those admitted to hospital, are carriers of MRSA. Screening patients before they come into hospital or immediately on admission allows trusts to take appropriate measures to isolate and decolonise those patients who are carriers of MRSA. This means that their risk of developing a clinical infection is reduced and the infection is not passed on to others within the hospital who may be vulnerable.

- 3.8 The *Our NHS, Our Future* interim report on the NHS next stage review by Lord Darzi, published by the Department of Health in October 2007, therefore set out that all elective patients will be screened for MRSA prior to admission by March 2009, and screening for emergency patients on admission will be introduced as soon as is practicable within the next three years. Implementation of universal screening will be monitored by the Healthcare Commission, as part of monitoring trusts against the statutory *Code of Practice*.
- 3.9 Results of two pilot studies testing rapid methods of screening for MRSA are due shortly and these data and other information will be used to provide the NHS with advice on implementation in autumn 2008. We are also examining the market in rapid-testing technologies to determine how best any such procurement should be handled, to make these available in the NHS quickly and with best value for money.



Lewisham Hospital NHS Trust – MRSA screening

University Hospital Lewisham has been screening all of its emergency and elective admissions since October 2004 and this has led to significant reductions in the number of MRSA bacteraemia and other infections caused by MRSA.

Consultant Microbiologist and Infection Control Doctor Gopal Rao explains why they decided to introduce universal screening:

‘The trust had relatively high rates of MRSA infections and it was clear to me that we needed to take action to reduce them. I knew of other trusts that had introduced “selective screening” and had relatively lower rates of MRSA bacteraemia. We decided that the best way to introduce screening in our trust was to screen all adult patients being admitted through A&E.

‘We use a “selective enrichment broth” and patients can be swabbed at their bedside. We then know within 24 hours whether a patient has MRSA. The broth remains pink if there is no MRSA and it turns yellow with a positive result, which is then confirmed in the laboratory.

‘Screening has proved to be a very effective element of our MRSA infection control and prevention strategy. Our MRSA bacteraemia numbers have reduced dramatically, as have other infections caused by MRSA. I believe that screening and identifying MRSA carriers at the time of admission has played a significant role in this improvement.’



Debbie Flaxman, Consultant Nurse in Infection Control, adds:

'The majority of patients are very happy to be screened for MRSA and the screening programme has also enabled us at the trust to identify the origin of MRSA-colonised patients. This means we now have a strategy in place to manage high-risk groups appropriately.

'But our infection control procedures do not stop there. In 2006 we had high rates of *C. difficile* and to tackle this we have introduced a new antibiotic prescribing policy and now use chlorine for cleaning the wards. This has made a big impact and our *C. difficile* rates are now some of the lowest in the country.'

Tools for the non-acute setting – Essential steps to safe, clean care

3.10 *Essential steps to safe, clean care: reducing healthcare-associated infections* (Department of Health, 2007) was also revised and relaunched in 2007. This programme mirrors Saving Lives but provides similar tools for the non-acute health setting. These tools also include the latest learning and guidance on areas such as movement of patients between organisations and managing MRSA in the non-acute setting. We are ensuring that this guidance is used as widely as possible, particularly in care homes, and, as for Saving Lives, we will continue to revise and update the guidance in line with emerging best practice.

Patients and the public

3.11 The role of patients and the public in tackling HCAs should not be underestimated. Patients should be involved in activities to reduce HCAs, the simplest activity being good hand hygiene. Patients should be educated on when, how and why the hand hygiene of healthcare

workers is important for all aspects of their care. The cleanyourhands campaign assures patients that 'it's ok to ask' healthcare workers to clean their hands before and after they are touched. The recent annual report by the Chief Medical Officer has recommended that the campaign be further strengthened through a pilot to give patients alcohol handrub on admission to further empower them to remind healthcare workers to have clean hands.

3.12 Visitors to acute hospitals also need to see themselves as a key part of the fight against infections. Regular hand cleaning and keeping to visiting hours are simple actions that will also help to protect patient safety.

3.13 In addition, the public need to understand and be reminded that antibiotics do not work on most coughs, colds and sore throats, and unnecessary use of antibiotics should be avoided as it can lead to increased microbial resistance. A new campaign is being launched from February 2008 and posters and leaflets will be supplied to GP surgeries. The campaign also reminds doctors of the problem and provides a way for them to raise the issue with patients.

Where to go for more information

Saving Lives and Essential Steps
www.clean-safe-care.nhs.uk

The Health Act 2006: Code of Practice for the Prevention and Control of Health Care Associated Infections

www.dh.gov.uk/en/Policyandguidance/Healthandsocialcaretopics/Healthcareacquiredinfection/index.htm

Healthcare Commission
www.healthcarecommission.org.uk

On the State of Public Health: 2006 Annual Report of the Chief Medical Officer
www.dh.gov.uk/en/Publicationsandstatistics/Publications/AnnualReports/DH_076817

4. All staff have a part to play

- 4.1 Ensuring that infection control is at the forefront of all healthcare workers' minds – not just doctors and nurses – is critical to an effective infection prevention and control strategy. The culture in every NHS organisation needs to be one where patient safety is paramount, and leadership in this respect is shown right from the chief executive and medical director to the healthcare assistant and porter.
- 4.2 *Our NHS, Our Future* set out the importance of safe care and particularly the role that local staff have in tackling the problem.

Management and board responsibility

- 4.3 NHS organisations have a number of duties in relation to infection prevention and control, and these are set out in the *Code of Practice*. Boards are accountable, and NHS chief executives are individually responsible, for their organisation's performance in reducing infections.
- 4.4 It is also the responsibility of leaders in NHS organisations to ensure that all staff understand the importance of individual accountability, responsibility and authority. These need to be embedded into job descriptions, personal appraisals, performance objectives and development of staff. Organisations that have made significant progress on tackling infections have consistently demonstrated specific support from executive teams.
- 4.5 NHS boards must therefore ensure that they have effective systems in place to assure themselves that infection prevention and control is well managed in their organisations. Boards should consistently demonstrate within their organisations how seriously infection prevention and control are taken and ensure that this is reflected throughout the organisation.
- 4.6 To support this strengthened organisational responsibility for HCAs, we have introduced a new mandatory requirement for quarterly reporting to boards by matrons and clinical directors on cleanliness and infection control. The revised *Code of Practice* reflects this requirement, meaning that this can be considered by the Healthcare Commission when checking compliance with the *Code of Practice*. The reports to boards will focus on compliance with statutory obligations and will improve the ability of senior clinical staff to raise concerns over cleanliness and infection control with trust boards directly.

- 4.7 In addition, NHS organisations also need to ensure that there is a clear route by which all staff can make their voice heard in respect of controlling infections and improving cleanliness. This should not just be about problems or issues, but should also be about sharing local practice that can help maintain cleanliness and tackle HCAs.



Supporting organisations to tackle HCAs

Going Further Faster was published in May 2006 and is aimed principally at chief executives, medical directors and directors of nursing. It acknowledges that sustainable improvement in lowering infection numbers requires board-level support and endorsement, along with all trusts having a prioritised action plan, integral to their overall strategic direction. It emphasises that progress is dependent upon the involvement of all levels of staff working in conjunction with the infection control team. *Going Further Faster* also contains a 'productivity calculator', which is an indicative tool helping trusts to assess the likely financial and operational impact of reducing their rates of HCAI.

To further support organisational change in tackling HCAs, *Board to Ward* guidance has been published alongside this strategy. Part of the *Saving Lives* toolkit, it sets out the learning from the Department of Health's improvement teams and will enable staff at every level of an organisation to be clear on their role and know how to make their contribution to tackling HCAs.

The *Board to Ward* guidance builds on *Going Further Faster* and the duties for management set out in the *Code of Practice*, which includes the designation of a senior individual as director of infection prevention and control, accountable directly to the board in each NHS body. Further guidance on making the most of the role of the director of infection prevention and control will be published later in 2008.

Matrons

- 4.8 Reintroduced in a reinvigorated role in 2001, matrons are focusing their role on:
- providing a clean environment for care;
 - ensuring best practice in infection control;
 - improving clinical care standards; and
 - treating patients with dignity and respect.
- 4.9 Recognising the crucial leadership role that matrons play in ensuring cleanliness and infection prevention and control on the ward, we have committed to increase the number of hospital matrons in place in the NHS to 5,000 by May 2008. The NHS received guidance on fulfilling this commitment in November 2007. *A Matron's Charter: An Action Plan for Cleaner Hospitals* was published in 2004 and this provides helpful further detail on making the most out of the matron's role.

- 4.10 Given their role, we expect matrons to be involved in setting initial service quality and standards for cleaning and in the management of contracts and service level agreements. Current contract guidance makes it clear that quality must be considered alongside cost when deciding how to provide cleaning services.
- 4.11 If cleaning providers do not provide sufficiently high standards, trusts can give matrons the authority to withhold payments from cleaning contractors and, ultimately, the right to recommend termination of the contract. Similar sanctions should apply to in-house services, although the mechanisms will differ.
- 4.12 Cleaning staff are the people who can make all the difference to the basic cleanliness of hospital environments. To do this to the best of their ability, they need to be properly resourced – in terms of time, numbers and equipment – and properly trained and valued.
- 4.13 Cleaners bring specific skills and expertise and must be seen as part of a healthcare team. The benefits of such an approach are supported by a finding by the Healthcare Commission that a higher frequency of meetings between nurses, cleaning staff and infection control staff was related to lower rates of both MRSA and *C. difficile* infection.
- 4.14 The relationship between nurses and cleaners is particularly important as nurses are expected to take responsibility for standards of cleanliness in clinical areas for which they are directly responsible. There should be processes and clearly defined responsibilities in place for nurses to request additional cleaning, both urgently (e.g. spills or discharge cleaning) and routinely (e.g. where standards are consistently below expectations).
- 4.15 As set out in paragraph 5.18, the Department of Health will host a cleanliness summit early in 2008 which will particularly focus on the roles and responsibilities of staff with respect to cleaning.

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Royal Wolverhampton Hospitals NHS Trust – involving staff

The Royal Wolverhampton Hospital is a testament to the fact that staff at all levels and in all disciplines have a part to play in fighting infection.

In 2006, the trust's MRSA rate was among the highest in the country. *C. difficile* case numbers were rising at a worrying rate.

'We had no option but to improve and make infection control our number one priority' says Director of Nursing and Midwifery, Cheryl Etches. 'The trust established a completely new strategy to tackle infection which involved all staff and, most importantly, was led from the top by the Chief Executive.'

Following a visit by the Department of Health improvement team, the trust put together an action plan with 70 key areas for improvement with the emphasis on roles, responsibilities and accountabilities for tackling the problem. Leadership was and is key to the success of the infection prevention strategy in the trust.

The trust now has an Infection Prevention and Control Committee chaired by the Chief Executive and including a non-executive director. In addition, the Infection Prevention Team has changed the way it works to a facilitative role, and now gives advice on infections and how to prevent their spread. This team has won both national and international awards for its work.

Improvements have been sustained for a number of months, indicating that the changes are rendering long-term results. *C. difficile* infection numbers are one of the lowest in the country, which is having a major impact on length of stay and avoidance of expensive antibiotics.

Consultants have agreed to targets for HCAs and also length of stay and day case rates as personal objectives. All matrons have infection prevention objectives and the prevention of infection is included in all staff job descriptions.

Chief Executive David Loughton says: 'All the measures taken together have led to a dramatic reduction in MRSA rates at the trust. In the first quarter of 2006/07, we had 18 cases, and just a year later in 2007/08 this had fallen to one. By September we had saved 212 lives, £6.8 million and 16,000 bed days. This is a remarkable achievement and proves that the only way a trust will succeed in reducing infection is through a strategy that all staff are involved with and signed up to.'



Specialist staff

- 4.16 In addition to the matron's role, there are a number of specialist staff that play a crucial role in cleanliness and infection prevention and control. The additional funding secured in the CSR for tackling infections has been reflected in both the uplift to the national tariff and PCT allocations for 2008/09. With this additional funding, all NHS commissioners and providers can afford to make significant investment in additional staff – from cleaners to specialist nurses and pharmacists.
- 4.17 The infection control nurse is a key member of infection control teams in trusts alongside infection control doctors and medical microbiologists. The infection control team functions in partnership with other teams – such as those responsible for risk management, hotel services and clinical governance – to ensure that prevention and control of infection is a high priority in the organisation. Investment in this area would include training and development of existing staff as well as recruitment of new staff.
- 4.18 Trusts should also consider the role that other staff can have on an infection control team. For example, nurses and other staff could assist with audits and surveillance to allow infection specialists to focus on their role. Link nurses are an important conduit between the ward and the infection control team.
- 4.19 The antimicrobial pharmacist is extremely important in promoting good prescribing practice. This is important for all HCAs – both in preventing the emergence and spread of antibiotic-resistant bacteria such as MRSA and because of the importance of controlling antibiotic use to prevent outbreaks of *C. difficile*. Investing in

pharmacy teams will allow pharmacists to work proactively with other clinical staff, such as medical microbiologists and infectious disease specialists, and free up time to undertake other key activities such as clinical audits.

- 4.20 Following best practice in managing patients with HCAs will mean more isolation and cohorting of infected patients. Investment in additional nursing staff will therefore be needed to ensure that patient care is not compromised by increased isolation. To support trusts, the Association of UK University Hospitals (AUKUH) has developed a Patient Care Portfolio which will help organisations deliver evidence-based workforce plans.
- 4.21 Keeping a hospital clean is difficult and time-consuming. There are few short cuts, and even with the newest technology, cleaning is highly labour-intensive (over 90% of the cost of cleaning can be due to staff costs). For this reason, high-quality cleaning staff and hotel service managers are essential.
- 4.22 In addition to acute trusts and other providers, PCTs should be investing in infection control to meet their dual role – they should assure themselves that providers have the necessary staff complement in place to deliver safe and effective care but also have a responsibility to tackle infections on a health economy-wide basis. We know that a significant proportion of HCAs are acquired in the community and so PCTs need to act now to ensure that they have appropriate staff in place to reduce the transmission of infection from the community into hospital. This would include employing infection control doctors and nurses, and ensuring that an effective infection control committee is in place.

- 4.23 With the additional funding reflected in allocations and the tariff for 2008/09, all NHS commissioners and providers can make an investment in staff. It is for local organisations to decide the best investment to meet their needs, but the CSR settlement and tariff and allocation uplifts allow for local organisations to invest up to £45 million on additional staff. This could, for example, deliver two infection control nurses, one pharmacist and two isolation nurses per acute trust, alongside additional infection control nurses in every community.

Preventing the spread of HCAs

- 4.24 Staff also have a key role to play in preventing the spread of HCAs. As well as the measures set out in *Saving Lives* – such as wound management and isolating patients – one of the simplest and most effective measures to reduce the spread of HCAs is good hand hygiene. The **cleanyourhands** campaign (see box) has been operating in acute trusts since September 2004. It aims to improve hand hygiene through a combination of approaches. A new campaign for the non-acute setting is currently being trialled in a range of organisations.
- 4.25 In addition, all acute trusts should now be implementing a bare-below-the-elbows dress code. This new dress code, reflected in the revised *Code of Practice*, will support more effective hand washing and will help to reduce the risk of infections.
- 4.26 Further evidence for NHS organisations when developing a dress code is set out in *Uniforms and Workwear: an evidence base for developing local policy* (Department of Health, 2007).

cleanyourhands

The National Patient Safety Agency (NPSA) has been running the cleanyourhands campaign since September 2004. The first two years focused on gaining organisational commitment to hand hygiene, raising awareness and reinforcing that hand hygiene is every individual healthcare worker's responsibility – the only person who can make sure your hands are cleaned before and after all patient contact is you. The third year is focusing on educating and informing those working in healthcare how and when to clean their hands and on assuring patients that 'it's ok to ask' workers to clean their hands.

Every acute trust in England has signed up to the campaign and promotional material is a common sight on wards up and down the country. Evaluation of the campaign has shown that it has been effective in changing many aspects of hand hygiene behaviour in acute NHS hospitals in England. It is now rare to find a ward without significant provision of alcohol handrub for use by patients and staff.

But there is clearly still more to do, so year three of the campaign is designed to be harder hitting and bolder than previous years. This will help build on the high levels of awareness that currently exist among healthcare staff, and do more to explain why hand cleaning is important.

The campaign is also being trialled for the first time in care settings outside hospitals. Nineteen 'pioneer' organisations have been selected to test the campaign in different healthcare settings and these include mental health trusts and GP surgeries. The campaign will then be rolled out further early this year.

In addition, year three of the campaign will also be piloting strengthened patient empowerment in a small number of acute trusts, following on from the recommendation in the Chief Medical Officer's latest annual report.

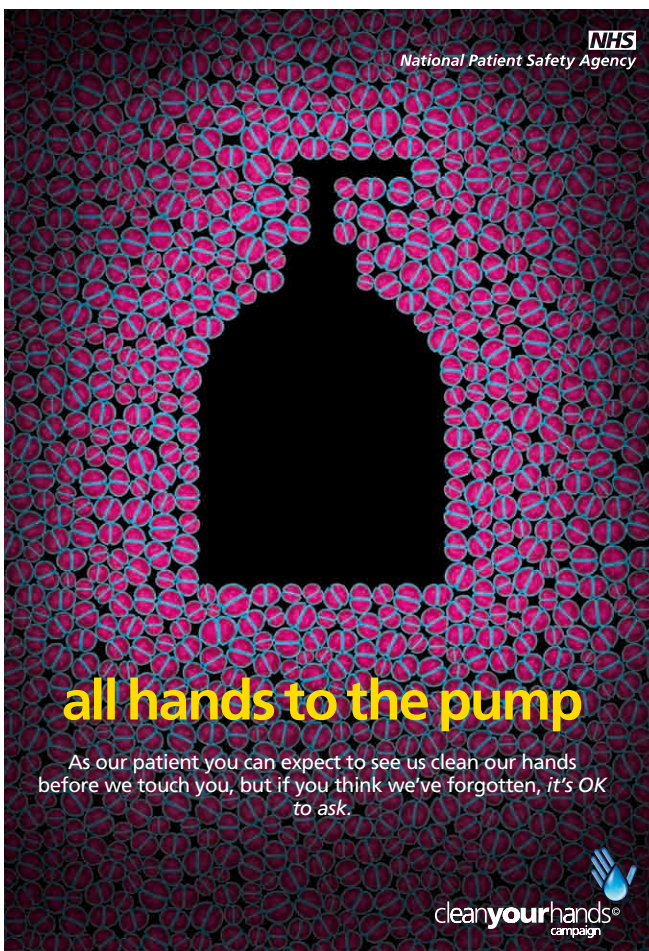


HR support for staff

4.27 Training is a key aspect of ensuring that all staff follow best practice in infection control. We recognise that NHS trusts – including foundation trusts – are independent employers who develop their own HR policies. There is, however, a statutory obligation for all NHS organisations under the *Code of Practice* to ensure that all staff are suitably educated in the prevention and control of HCAs.

4.28 To further support the NHS, the Social Partnership Forum – where the Department of Health, trade unions and employers work together in the development and implementation of policy with workforce implications – is producing a guide in early 2008 for local employers on how HR processes such as training, induction and disciplinary action can be best used to encourage good practice in infection control.

4.29 In addition, we are working with undergraduate and postgraduate deans, the General Medical Council and the medical Royal Colleges to ensure that training in infection prevention and control is embedded at all stages of medical training. For nurses, the Nursing and Midwifery Council issued guidance in 2006 that all registrants have a responsibility to deliver safe and effective care based on current evidence, and this includes standard infection control precautions.



Resources for training

There are a number of resources that are available to train staff in best practice in infection prevention and control.

The NHS Infection Control Programme, a free online resource designed to increase understanding of infection control practice in clinical and non-clinical staff
www.infectioncontrol.nhs.uk

The National Resource for Infection Control, a one-stop shop for infection control guidance
www.nric.org.uk

Skills for Health has developed competence frameworks and national occupational standards for healthcare staff in all sectors of the workforce
www.skillsforhealth.org.uk

An e-learning module for clinical staff, learning from good practice in the management of an outbreak of *C. difficile* at the Royal Devon and Exeter NHS Trust
www.bmjlearning.com/cdifficile

Online training for doctors on MRSA and *C. difficile*
www.doctors.net.uk

Where to go for more information

Board to Ward guidance
www.clean-safe-care.nhs.uk

Going Further Faster
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4134549

A Matron's Charter: An Action Plan for Cleaner Hospitals
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4091506

AUKUH Patient Care Portfolio
www.aukuh.org.uk/members/PCP.htm

Nursing and Midwifery Council advice sheet on infection control
www.nmc-uk.org/aFrameDisplay.aspx?DocumentID=1577

cleanyourhands campaign
www.npsa.nhs.uk/cleanyourhands

Uniforms and Workwear: an evidence base for developing local policy
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_078433

5. A clean environment

- 5.1 Attention to cleanliness plays an important part in creating a culture that allows everyone in a healthcare facility to focus on infection control. Without the backdrop of a very clean environment, measures such as consistent hand cleaning and thorough cleaning of beds between patients can feel futile, and the confidence of both patients and staff is undermined.
 - 5.2 Maintaining high standards of hygiene is key in preventing the spread of infection. *C. difficile* spores and, to a lesser extent, MRSA both survive well in the environment, meaning that enhanced environmental cleaning and decontamination are vital components in reducing rates of infection.
 - 5.3 Cleanliness is also essential for the comfort and dignity of patients, particularly for those inpatients for whom a hospital is home for any length of time. Patients and the public consistently rate a clean hospital in the top five things they wish to see in a modern NHS (Department of Health survey – *Public perceptions of the NHS*). Furthermore, when offered a list of 12 factors that would make them feel they were being treated with privacy and dignity, more people chose 'a clean hospital' (58%) than any other factor (Ipsos MORI).
 - 5.4 Furthermore, patients and the public tend to use cleanliness as a proxy for general quality. A recent *Which?* report (October 2007, 'Hospitals: the patients' perspective') stated: 'One of the clearest signals to a patient that they will be cared for is the attention paid to the cleanliness of their wards and bathroom facilities.'
 - 5.5 To support NHS organisations to develop and maintain an environment that meets the needs and preferences of patients, benchmarks for the care environment have recently been developed as part of the *Essence of Care* series.
- ## Patient Environment Action Teams
- 5.6 The NHS is held to account in a variety of ways for its levels of cleanliness. Patient Environment Action Team (PEAT) inspections cover food and aspects of privacy and dignity, as well as cleanliness and the environment. Under the programme, managed by the NPSA, every inpatient healthcare facility in England with more than 10 beds is assessed annually. Results are published annually and available to the public.
 - 5.7 Hospital cleanliness has improved year on year since annual PEAT inspections first began in 2000 and now only a handful fall into the lowest categories. The NPSA

recently (November 2007) announced the 2007 hospital PEAT scores, and 98% of hospitals are now rated 'acceptable', 'excellent' or 'good'.

- 5.8 These figures demonstrate that cleaning has improved across the NHS, but a step change is needed so that a high level of cleanliness is simply the norm across all hospitals.

University Hospitals of Leicester – cleaning

University Hospitals of Leicester NHS Trust has slashed the rates of infection in its hospitals and is now leading the way in the East Midlands.

The trust has invested a great deal of time and money over the last two years on tackling infection and improving cleanliness in its hospitals.

Over the past two years £4.5 million has been spent on extra cleaning staff, improving hand-washing facilities, and introducing a special isolation ward and steam cleaning technology. In addition, £1.2 million has been spent on new equipment, such as blood pressure cuffs and stethoscopes, which will be allocated to every patient.

Pauline Tagg, Director of Nursing/Infection Prevention and Control, said:

'We have gone to great lengths to improve cleanliness and infection control in our hospitals. Part of that strategy was to introduce a rolling deep-clean programme, whereby wards are vacated and deep cleaned by steam cleaners using detergent and water at a high temperature, which helps to remove any bacteria.'

'After the steam clean, we "bomb" the ward area with a hydrogen peroxide dry mist, which treats surfaces, including those usually inaccessible or hidden, and destroys microorganisms. We've been very pleased with the results so far and believe it has helped us reduce our rates of infection drastically – so much so, that we now have the lowest rates in the East Midlands.'

In addition to intensive cleaning, the trust launched a hand hygiene initiative ('Stop! Clean Your Hands') aimed at patients, staff and visitors; launched a new antibiotic prescribing policy that has led to a 25% reduction in inappropriate antibiotic prescribing; and is rolling out an MRSA screening programme for all patients.

All of these initiatives have had a hugely positive effect on infection rates. The trust has reduced rates of *C. difficile* by 60%, and MRSA infection rates have reduced by 40% compared with the same period last year.



Deep cleaning

- 5.9 Hospitals are busy places, often open 24 hours a day to all comers. Big, acute hospitals in particular receive hundreds of thousands of people – staff, patients and visitors – through their doors every year. Hospitals are being cleaned all the time but, because of the difficulties that hospitals can face in cleaning some areas, more ingrained dirt can accumulate.

- 5.10 A total of £57 million is being invested in 2007/08 in deep cleaning, so that the NHS can be reinvigorated with thoroughly clean buildings across the estate and increased awareness of the importance of a properly clean environment.
- 5.11 Deep cleaning is not different cleaning, and it does not obviate the need for thorough ongoing cleaning; instead, it is a more concentrated programme of cleaning, often using new equipment or specialist skills. It allows trusts to consider cleaning activities that are difficult to deliver, while maintaining levels of service in busy hospitals, and it addresses problems that may have built up over time.
- 5.12 One technique that has been shown to be effective at reducing environmental contamination by microorganisms is use of hydrogen peroxide vapour. This requires areas to be sealed off, but can prove particularly helpful in preventing *C. difficile* infection, as the spores from the bacterium can persist after regular cleaning.
- 5.13 As well as specialist cleaning, it may be appropriate to replace items that cannot be cleaned satisfactorily, or to replace damaged finishes to make subsequent cleaning easier.
- 5.14 We expect all trusts to have undertaken an initial deep clean by 31 March 2008. We will work with SHAs to draw up detailed examples of where a deep clean has had a demonstrable effect in improving patient care and will disseminate these across the NHS. This will help local NHS organisations to determine the ongoing requirements for deep cleaning.

Funding for deep cleans by SHA region

SHA	2007/08 Expenditure intentions, £m
North East	3.0
North West	6.4
Yorkshire and the Humber	5.0
East Midlands	7.0
West Midlands	9.9
East of England	4.2
London	8.0
South East Coast	5.4
South Central	3.5
South West	5.1
Total	57.5

Design of the estate

- 5.15 A well-designed care environment encourages good practice and is easier to clean and maintain. We have issued guidance (*HFN 30 – Infection Control in the Built Environment*) which is currently being updated to reflect the latest best practice. The guidance includes advice on how to ‘design out’ infection, for example by reducing potential reservoirs for infection, and supporting hand hygiene. It also offers advice to support easy cleaning – for instance by using impervious flooring and by encasing blinds within window glazing.

- 5.16 The guidance makes it clear that infection control teams must be involved from the very early stages of any new build or refurbishment project. For many infection control staff, this will be a new experience, and the guidance provides support to both infection specialists and design and construction staff, to enable them to work together effectively.

National specifications for cleanliness and guidance on cleanliness

The NPSA has published *The National Specifications for Cleanliness in the NHS* (2007) for hospitals and is currently in the process of producing national specifications for a variety of other healthcare settings – GP surgeries, health centres and clinics, and ambulances. These specifications will set out the standard of cleanliness expected across the range of elements which need cleaning, together with suggested cleaning frequencies. The document is due to be launched in summer 2008.

At the beginning of 2007, a new NHS Standard Service Level Specification for cleaning for all NHS services was issued (for in-house services, outsourced services and private finance initiatives). This built on the detailed guidance issued to the NHS in 2004, advising them on setting up and managing cleaning contracts (*Revised Guidance on Contracting for Cleaning*, 2004). The 2007 specification makes it clear that quality, as well as cost, should drive decisions. It also sets out our expectations for the involvement of nursing staff, particularly matrons and infection control nurses, in setting and monitoring contract standards.

National hospital cleanliness summit and forum

- 5.17 Cleaning is provided by the private sector in about 40% of hospitals (and in the case of private finance initiatives, this figure is close to 100%). Regardless of who actually delivers cleaning services, the challenges are the same.
- 5.18 Early in 2008, the NHS Chief Executive will host a 'cleanliness summit' of private and in-house cleaning providers, to discuss responsibilities and, particularly, nurses' roles in setting and monitoring cleaning contracts and service level agreements.
- 5.19 After the summit, the Department of Health and other national bodies will continue to work with cleaning providers through the 'cleanliness forum'. The forum will provide a medium for discussion of national issues relating to, and affecting, hospital cleaning. The forum will provide practical, operational advice and guidance to the Department of Health and the NPSA on issues relating to the development and implementation of national policy relating to hospital cleaning.
- 5.20 Further initiatives on cleaning will continue to be developed during 2008, after the summit and as a result of ongoing work with providers and unions.

Infection-resistant, 'easy-clean' keyboards

Connecting for Health is spending £1 million piloting 20,000 fully enclosed keyboards and mice across the NHS. These keyboards are easy to clean effectively, as they are waterproof and have completely smooth surfaces. They also have an intelligent system that beeps when cleaning is required. Procurement work is ongoing in association with SHA directors of nursing.

The new-style, easy-clean computer keyboards will replace conventional computer keyboards and mice, which are difficult to clean to an adequate hygiene standard because of the shape of the keys and the various gaps and spaces between them. Staff often need to use keyboards to enter data following patient contact and these easy-clean keyboards reduce the risk of transmission of infection.

The intensive care unit at University College London Hospital has been trialling the keyboards since June 2007. They have been well accepted and people like the 'feel' of them. They have now been rolled out across the hospital.

Where to go for more information

Essence of Care: Benchmarks for the Care Environment

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080058

PEAT inspections

www.npsa.nhs.uk/peat

Rapid Review Panel

www.hpa.org.uk/infections/topics_az/rapid_review/default.htm

HFN 30- Infection Control in the Built Environment

www.dh.gov.uk/en/policyandguidance/organisationpolicy/estatesandfacilitiesmanagement/index.htm

National Specifications for Cleanliness in the NHS

www.npsa.nhs.uk/patientsafety/alerts-and-directives/cleaning-and-nutrition/national-specifications-of-cleanliness/

Revised Guidance on Contracting for Cleaning

www.patientexperience.nhsestates.gov.uk/clean_hospitals/ch_content/contracting_for_cleaning/introduction.asp

6. Innovations

6.1 The basic ways of preventing and reducing HCAs are unchanging, but new technologies and equipment can help things to be done better and so reduce HCAs more quickly. However, we need to know which new technologies really work best and which will have the most impact. This information then needs to be shared across the NHS.

6.2 We have two complementary channels for identifying effective new technologies: the Rapid Review Panel (RRP) at the HPA; and the 'Smart Ideas' programme with front-line NHS staff. Alongside these, we are launching a series of other initiatives, such as working with industry and healthcare providers around the world – or just around the corner – to ensure that we know what is available in terms of new technologies, and making sure that the NHS can access the new technologies, without unnecessary delay.

Rapid Review Panel

6.3 The RRP was set up in 2004 to review new HCAI-related technologies. The RRP provides a prompt assessment of new and novel equipment, materials, and other products or protocols that may be of value to the NHS in improving infection prevention and control. The RRP has already reviewed 198 products, providing

feedback and opinion, and categorising the products (from 'category 1' to 'category 7'):

- six products have been awarded a 'category 1' recommendation (efficacy proved both scientifically and 'in use'); and
- 21 products have been awarded a 'category 2' recommendation (potential value – trials in an NHS setting needed).

6.4 The RRP evaluations tell the NHS whether a technology will work (or not) in helping to reduce or prevent infection. However, the NHS also needs to know how well each of the technologies works – especially when compared with each other and when targeting them at specific types of infection. We will therefore expand the remit of the RRP, so that it provides much more information about the wider impact that approved technologies can have, so the NHS can get the most from the investment it makes in infection prevention and control.

The 'Smart Ideas' programme

6.5 Front-line staff – both clinical and non-clinical – are often the best-placed people to spot solutions. During autumn 2007 we held workshops with hundreds of NHS

staff. We gathered ideas from them about how we might use technology to combat HCAs more effectively, and we now have a firm idea about what they think will be useful.

- 6.6 Some ideas are quite complex. The best of these – those which seem likely to be the most effective and practical – will be designed and piloted to show whether they do help reduce infection, and the evidence will be submitted to the RRP. If the technologies or products are approved, then we will look for the best and quickest ways to make as many of them as possible available to the NHS, by working closely with our partners in industry.
- 6.7 Other 'smart ideas' may not be so heavily linked to science and may be simply matters of common sense. These may not need to be so rigorously tested and approved, and it may be possible to make quicker progress with these – but not at the expense of safety.
- 6.8 Once the 'smart ideas' are ready, we will help launch the products, by quickly getting them into the NHS supply catalogues, by supporting promotions and placements within the NHS at showcase hospitals and by making sure they are featured on a new web page specifically devoted to HCAI-related technologies at www.clean-safe-care.nhs.uk.

HCAI Technology Innovations Awards

- 6.9 We will seek to encourage innovation and original solutions through a variety of other approaches. An HCAI Technology Innovations Awards Programme will be established, to encourage innovation and delivery of new HCAI-related products. This awards programme will be developed with the Association of British Healthcare

Industries and will include annual awards for the best innovation, best newcomer and best training contribution that helps combat infection.

Design Bugs Out

- 6.10 We will approach some of the most talented designers and ask them to work on a 'Design Bugs Out' programme. This will involve creating better designs for critical hospital equipment and furniture which have historically proved hard to clean effectively and where redesign will not only make them easier to clean but also make them more modern and easier to use.

HCAI technology networks, international summit and confederation

- 6.11 If NHS front-line staff are not aware of new technologies and products, it does not matter how useful or effective they are. Therefore, during 2008/09 we plan an extensive and sustained promotional and marketing campaign to make sure that understanding and knowledge are spread as widely as possible among all NHS staff involved with infection prevention and control. This will include HCAI technology workshops, conferences and seminars (both nationally and at local trust level) concerning research and development, cleaning services and technologies; working with industry partners from around the world; and listening more to NHS front-line staff about how we can help them further.
- 6.12 In collaboration with the Association of British Healthcare Industries, we will put in place the first-ever international summit concerning HCAI-related technologies. This will bring together the best scientists and designers from around the world – along with those who use the technologies

– to form an international confederation to promote and showcase best practice along with emerging themes and possibilities for the near future – especially from countries well known for innovation.

Where to go for more information

Rapid Review Panel

www.hpa.org.uk/infections/topics_az/rapid_review/default.htm

'Smart Ideas' will be available later in the year at: www.clean-safe-care.nhs.uk

Association of British Healthcare Industries
www.abhi.org.uk/

7. Ensuring progress

- 7.1 By following the actions set out in this strategy, NHS organisations will be in a good position to make continued progress on HCAs. In order to ensure continued focus on HCAs and cleanliness as a top priority in the coming years, a number of underpinning standards, incentives and organisations are in place.
- 7.2 Significant investment was made in 2007/08 to support the NHS. An additional £50 million was allocated to SHA directors of nursing, to support local improvements. On top of this, SHAs agreed to spend £57 million on deep cleaning all hospitals by the end of 2007/08.
- 7.3 To support ongoing improvements in improving cleanliness and tackling infections, the CSR identified £270 million of additional funding per year by 2010/11. For 2008/09, this additional funding is reflected in the 5.5% increase in PCT allocations and the 2.3% uplift to the national tariff – the latter specifically recognising the importance of tackling HCAs and improving cleanliness. The funding for the local NHS means that all NHS organisations can afford to make significant progress in this area.

Public Service Agreement

- 7.4 As part of the settlement with the Treasury for financing from 2008/09 to 2010/11, two indicators were agreed under the *Better Care for All* Public Service Agreement (PSA) that set out what the Government expects the NHS will achieve over the coming three years:
- Firstly, that progress on reducing the number of MRSA bloodstream infections is sustained to 2010/11. This means that the annual number of MRSA bacteraemia for the period 2008/09 to 2010/11 should be less than 50% of the 2003/04 figure.
 - Secondly, that the number of *C. difficile* infections should be reduced by 30% nationally by 2010/11 from a baseline of 2007/08.
- 7.5 Local NHS organisations will be expected to contribute to the overall national requirements via agreements in PCT operational plans. Further detail on operational and performance management requirements will be set out in guidance to the local NHS later in January 2008.

7.6 We do not, however, expect that the indicators above should limit the ambitions of organisations that wish to go further, faster. The NHS has made extraordinary progress in reducing MRSA levels and there is no reason to think that the progress cannot be maintained. Reducing the incidence of HCAs should not be about hitting targets; rather it should be because patients deserve safe, high-quality care whenever they come into contact with the NHS.

Operating Framework

7.7 The Operating Framework, published in December 2007, set out the priorities for the NHS for 2008/09. It put cleanliness and HCAs as one of five national priorities that require particular and sustained attention from PCTs, working with every organisation that provides care to NHS patients.

7.8 This focus reflects the fact that we have a *National Health Service* in England, and patients and the public are right to expect stringent national standards in areas that are of particular concern to them, like cleanliness and HCAs.

National contract

7.9 For 2008/09 a new standard NHS contract has been introduced, covering agreements between PCTs and providers of general and acute services. The contract will be adopted by all NHS trusts and many NHS foundation trusts from April 2008, and will subsequently be extended to independent sector providers and all other foundation trusts.

7.10 One element of the contract is the requirement for providers to achieve the target reduction in the rate of *C. difficile* agreed with PCTs. The contract provides for measures to remedy any failure to

achieve the required improvements and ultimately for a financial sanction if the failure continues. Depending on the scale of the failure, a financial adjustment of up to 2% of contract income is possible. High-performing organisations will not be subject to this sanction, so long as they maintain current performance.

7.11 A further element of the contract is the requirement for monthly clinical quality review meetings between providers and commissioners, which will cover performance on both MRSA and *C. difficile*. Any ongoing concerns will be jointly investigated, leading to the agreement and implementation of a remedial clinical action plan, if required. This process will help to ensure that PCTs and providers work closely on tackling HCAs and that they are seen as an issue for the whole local health economy to manage.

Tariff uplift

7.12 As set out in the Operating Framework and Payment by Results guidance, the tariff uplift for providers in 2008/09 is 2.3%. The tariff uplift recognises the importance of tackling infection and improving cleanliness, by ensuring that some financial flexibility has been built into the tariff to allow organisations to accelerate their strategies for reducing infection. Providers and commissioners are expected to consider the additional areas of investment – for example in more specialist staff – outlined in this strategy.

NHS foundation trusts

7.13 *Clean, safe care* is a strategy for the NHS as a whole and so will impact on both existing NHS foundation trusts and aspirant foundation trusts.

Existing NHS foundation trusts

7.14 NHS foundation trusts enjoy a significant degree of autonomy and are free from central direction. They must deliver services in ways that are consistent with the standards expected of all NHS organisations. As the leading NHS service providers, they are expected to set the example for others to follow. We shall continue to require NHS foundation trusts to meet national standards which, for HCAs, means they must as a minimum:

- be achieving their agreed trajectory on MRSA reduction; and
- contribute proportionately to the national target of reducing *C. difficile* infections by 30% by 2010/11.

7.15 NHS foundation trusts are also covered by the *Code of Practice* and are subject to inspection and assessment by the Healthcare Commission. Where there are ongoing concerns with an NHS foundation trust not meeting the above standards or complying with the *Code of Practice*, Monitor, the independent regulator of foundation trusts, will be able to use its statutory powers to require rapid improvement.

Aspirant NHS foundation trusts

7.16 To become an NHS foundation trust, applicant trusts need to demonstrate financial and clinical viability at various stages. The most critical of these stages are when the trust is ready to go out to public consultation on its NHS foundation trust application and when its application requires the Secretary of State's support. No NHS foundation trust application will be supported by the Secretary of State unless it is demonstrably delivering sustained improvement on tackling infections. With that in mind, we shall

expect the following from applicant NHS foundation trusts:

- When the SHA is satisfied that the trust is ready to go out to public consultation on its application, the SHA will need confirmation that the trust is achieving its agreed rate of improvement on HCAs and, where there are concerns, the SHA can satisfy itself that robust action plans are in place to demonstrate actual improvement by the time the trust makes a final application to the Department of Health.
- When trusts make their final application:
 - explicit confirmation from the trust and its SHA that it is achieving its trajectory on both MRSA and *C. difficile*;
 - it is not regarded as being a national outlier; and
 - neither the SHA nor the Department of Health improvement team have any concerns about current or future performance.

7.17 By making our position clear on what constitutes an acceptable rate of progress on reducing infections, NHS trusts and their host SHAs will be able to determine how best to direct management focus and resources.

Healthcare Commission

7.18 The Healthcare Commission is responsible for assessing the performance of all healthcare organisations and rates their performance on quality and use of resources in their annual health check. The 'quality' component of the annual health check assesses organisations' compliance with the Department of Health's 24 core

standards for better health, of which three are in some way related to HCAs.

- 7.19 In addition, all NHS bodies are subject to the *Code of Practice* as set out on page 11.

Care Quality Commission

- 7.20 Under the Health and Social Care Bill, introduced into Parliament in November 2007, a new health and adult social care regulator – the Care Quality Commission – will be in place from April 2009. The Care Quality Commission will continue the Healthcare Commission specialist inspections, but with tougher powers to inspect, investigate and intervene on cleanliness and HCAs.
- 7.21 The Care Quality Commission will have new powers to inspect and take immediate and firm action to protect patients and service users. These powers include prosecuting providers for repeated or serious breaches of safety – which could result in fines of up to £50,000. We are also giving the new Commission a flexible range of enforcement powers that will empower it to issue warning notices, to caution, to directly fine providers instead of prosecution, and to suspend or close services or wards.

Patient choice

- 7.22 One of the most important drivers in driving down infections and improving cleanliness are the choices made by individual patients. This strategy has been written so that every patient can have an expectation of the actions that trusts and PCTs should have in place to combat HCAs.

- 7.23 In addition, the NHS Choices website (www.nhs.uk) has data on MRSA rates (measured as infections per 10,000 bed days) for trusts, allowing patients to consider this alongside other indicators, such as waiting times and the Healthcare Commission's annual health check. Later in 2008, we are intending to add additional information to show the rate of infection per elective bed days. This is a more useful indicator for patients making a choice about where to have an elective procedure and is more comparable to independent sector healthcare providers.

- 7.24 The cleanliness of hospitals is also likely to be an important factor for patients when choosing a hospital. NHS Choices includes an indicator based on how previous patients rated the trust in response to the question 'How clean and comfortable is the hospital?' in the Healthcare Commission inpatient survey.

Department of Health

- 7.25 The Department of Health HCAI improvement team was set up to provide tailored support to trusts with the most challenging MRSA targets. It now also works with trusts to help them get their *C. difficile* numbers down as well. By the end of 2007, the improvement team had visited 154 trusts.
- 7.26 Funding for the improvement team has been substantially increased, meaning the team has doubled in size from the beginning of 2008, allowing it to provide bespoke support to more trusts on both MRSA and *C. difficile* infections.

NHS West Midlands – whole health community approach

NHS West Midlands had many challenges to face in tackling HCAs across its region. The SHA knew it would only be successful if it approached the issue across the entire health economy.

Peter Blythin, NHS West Midlands Director of Nursing and Workforce, explains what the SHA and local health services have done so far:

'In the summer of 2007, we at the SHA kicked off the campaign to further tackle infection and cleanliness with a health summit headed up by our chief executive, Cynthia Bower. The summit attracted senior staff from PCTs, acute trusts, foundation trusts and other NHS organisations and, as a result, a set of actions were agreed. This included a focus on locality-based groups made up of PCTs, acute trusts and mental health trusts to improve patient safety.

'The SHA and local health services have also invested £9.7 million on improving infection control and cleanliness. This includes £5 million of national funding, but the total amount has made us one of the highest-spending regions on reducing infections and improving cleanliness.'

The SHA also strengthened its resource dedicated to this agenda, including secondees from the HPA and the Department of Health Cleaner Hospitals team.

Peter adds:

'Local health services in the West Midlands have placed tackling infections at the top of their agendas, and we are starting to see improvements. However, we still have a great deal to do – but I am confident that we have the right strategy and systems in place to make even further improvements for patients across the region.'

Where to go for more information

PSA Delivery Agreement 19: Ensure better care for all

www.hm-treasury.gov.uk/media/3/A/pbr_csr07_psa19.pdf

The NHS in England: The Operating Framework for 2008/09

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081094

The Standard NHS Contract for Acute Hospital Services and Supporting Guidance 2008/09

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081100

Tariff 2008/09

www.dh.gov.uk/pbr

Monitor

www.monitor-nhsft.gov.uk/

Healthcare Commission annual health check

www.healthcarecommission.org.uk/healthcareproviders/serviceproviderinformation/annualhealthcheck.cfm

NHS Choices

www.nhs.uk





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