

ADVICE ON THE PREVENTION AND CONTROL OF HEALTHCARE-ASSOCIATED INFECTIONS: SCOPE

1. Advice

Prevention and control of healthcare-associated infections (HCAIs) in secondary care settings.

1.1 *Short title*

Prevention and control of healthcare-associated infections.

2 Background

- a) The National Institute for Health and Clinical Excellence (NICE) has agreed, in partnership with the Health Protection Agency (HPA), to develop advice on the prevention and control of healthcare-associated infections (HCAI) in secondary care settings.
- b) The prevention and control of infections acquired as a result of a healthcare intervention is a key priority for all NHS and social care providers. This includes primary care trusts and local authorities. This responsibility is made clear in the 'Code of practice on the prevention and control of infections and related guidance' (Department of Health 2009). This advice will focus on secondary care settings. In future, additional advice may be developed to support people working in other health and social care settings.
- c) A set of 10 to 15 statements and indicators will be developed to provide specific, concise markers of high-quality, cost-effective practice and care. The statements and indicators will build upon recommendations made in relevant NICE guidance. Where no relevant NICE guidance exists, they will draw upon a clearly

defined hierarchy of evidence and guidance from NHS Evidence and other high quality sources.

- d) It is anticipated that the advice will be used to compare performance against evidence-based measures of best practice, or to help providers, commissioners (and auditors) identify areas for improvement. It may also be used to make investment decisions, or to provide patients and the public with information about the quality of care they could expect from a healthcare provider.
- e) The advice will be developed independently by NICE, in collaboration with professionals and practitioners from the NHS, the Health Protection Agency, local authorities, and the voluntary sector, as well as with patient and public representatives.
- f) The dimensions of quality that will be considered are as follows:
- Effectiveness (how well an intervention or practice has been shown to work).
 - Acceptability (to patients, practitioners, professionals and the public).
 - Efficiency (return on investment or the extent to which outcomes are maximised per unit of input).
 - Access (availability of an intervention or practice).
 - Equity (availability to all, or fair treatment).
 - Relevance (in relation to the aims and objectives of the service or practice).
- (Maxwell 1992).
- g) This advice will support the vision for public health set out in the white papers 'Healthy lives, healthy people' (Department of Health

2010a) and 'Equity and excellence: liberating the NHS' (Department of Health 2010b).

- h) This advice is aimed at commissioners, managers, clinicians and other professionals working in secondary care settings who have public health – and the prevention of healthcare-associated infections – as part of their remit. It may also be of interest to those working elsewhere in the NHS, as well as those working in local authorities and the wider public, private, voluntary and community sectors. In addition, it may be of interest to the general public.
- i) This advice has been produced using a pilot process (see appendix A).

3 The need for advice

- a) Healthcare-associated infections (HCAs) are caused by a range of organisms as a result of a healthcare intervention. These include *Escherichia coli* (20%), *Staphylococcus aureus* (13%), coagulase negative staphylococci (17%) and *Klebsiella* spp (13%) (National Audit Office 2009). The resulting infections include meticillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (CDI). An HCAI can exacerbate existing or underlying conditions, delay recovery and adversely affect someone's quality of life. Symptoms can range from discomfort to serious disability or death (National Audit Office 2009).
- b) HCAs commonly occur in the gastrointestinal tract (22%) (National Audit Office 2009), lower respiratory tract (20%), skin and soft tissues (20%) and other parts of the body where surgery has been performed (14%). The latter (surgical site infections) may account for 15% of all HCAs and are a considerable source of morbidity. For example, approximately 1 in 100 patients who underwent hip prosthesis surgery and 1 in 200 who underwent knee prosthesis surgery in 2008/09 developed an infection (Health Protection Agency 2010a).

- c) HCAs cost the NHS a significant amount of money every year. The outcomes framework (Department of Health 2010c) estimates that each CDI costs the NHS around £10,000 and each MRSA bloodstream infection costs around £7000. In 2009/10, (the latest figures available) there were over 25,000 CDIs and almost 1900 MRSA bloodstream infections. The cost to the NHS, for these two infections alone, was around £260 million (Department of Health 2010c).
- d) Following National Audit Office reports (2000; 2004) highlighting concerns about HCAI, the Department of Health introduced a range of policies and measures designed to reduce rates of infection. Mandatory surveillance for MRSA was introduced in 2001. In 2004, all hospital trusts were set a target to reduce MRSA bloodstream infections by 50% by 2008 in all NHS acute and foundation trusts. The Health Act introduced further HCAI legislation (Department of Health 2006). The need to reduce rates of HCAI – measured by rates of MRSA bloodstream and CDI – remains a key priority for the NHS (Department of Health 2008).
- e) In 2009/2010 there was a 35% reduction in reported incidence of MRSA bacteraemia and a 29% fall in CDI compared to the previous year. However, there were nearly 2000 (1898) reported incidences of MRSA bacteraemias and 25,604 reports of CDI during this time. In addition, in 2009, 77 trusts reported 831 outbreaks of norovirus, 82% of which led to some form of ward closures (Health Protection Agency 2010b).
- f) A number of organisational factors increase the risk of HCAs. These include: rapid turnover of patients, poor ward hygiene, low staff morale, high staff-patient ratios and ineffective leadership (Griffiths et al. 2008). Factors such as team stability and morale, training, appraisal infrastructure and clinical governance may also affect the likelihood of an HCAI outbreak.

4 The advice

This document defines what this advice may (and may not) examine, and what the advice developers will consider. The scope is based on a referral from the DH (see appendix A).

4.1 *Activities/measures that will be covered*

This advice will focus on organisational factors that affect HCAI rates in secondary care settings in England. Factors considered may include:

- physical structures
- management and social structures
- organisational policies and procedures
- performance management and training
- monitoring and surveillance of HCAIs and evaluation of infection control practices audit and accountability
- management priorities and values
- workforce culture
- change management.

4.2 *Activities/measures that will not be covered*

- a) This advice does not seek to replicate existing evidence and guidance on specific infections and micro-organisms or effective interventions for reducing HCAI at ward or individual level.
(Examples include: 'Infection control' NICE clinical guideline 2 and 'Surgical site infection' NICE clinical guideline 74.)
- b) This advice will not involve a full or systematic review of primary or secondary evidence.

4.3 *Key questions*

The overarching question that will be addressed is:

What organisational characteristics, arrangements and practices indicate that a secondary care trust is effectively preventing and controlling HCAI?

Secondary questions include:

- How can organisational characteristics, arrangements and practices be modified or improved to reduce HCAI?
- What are the most appropriate ways of measuring organisational characteristics, arrangements and practices which impact on rates of HCAI?
- Which organisational factors in secondary care are crucial in reducing HCAI?

6. Status of this document

This scope was published on the NICE website in March 2011.

7. Further information

Further information on this advice can be found at

www.nice.org.uk/guidance/phg/PublicHealthAdviceHealthCareAssociatedInfections.jsp

Appendix A Referral from the Department of Health

The Department of Health asked NICE and the Health Protection Agency to:

‘Produce advice on the prevention and control of healthcare-associated infections (HCAI) in secondary care settings.’

Appendix B Interim process for developing advice

1. **Topic selection.** The topic is selected for development following publication of relevant NICE guidance, or following a referral from the Department of Health.
2. **Topic Expert Group (TEG) recruited.** The chair and professional and lay members are appointed.
3. **Scoping.** NICE develops a scope which describes the topic, the need for public health advice and the areas which will be considered (this document).
4. **TEG meeting 1.** The Group considers and agrees the scope.
5. **Briefing paper developed.** NICE identifies and summarises audit and survey data and key evidence. This includes evidence from reviews, theoretical approaches, current practice, patients and service users. The briefing paper also includes draft statements, quality measures and cost impact information.
6. **TEG Meeting 2.** The Group considers the briefing paper and agrees the draft statements and measures ready for consultation. Following this meeting, NICE amends and finalises the draft statements and measures.
7. **Consultation.** The public health advice is put out for consultation with stakeholders and the public for 4 weeks. Limited field testing is also completed. Comments and feedback from the consultation and field testing are collated and summarised for TEG.
8. **TEG meeting 3.** The Group considers findings from the consultation and field testing and agrees amendments to the public health advice.
9. **Sign off.** Final public health advice signed off by CPHE Centre Director and NICE Guidance Executive.
10. **Publication and dissemination.**

Appendix C References

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Department of Health (2010c) NHS outcomes framework 2011/12 impact assessment. London: Department of Health

Griffiths P, Renz A, Rafferty AM (2008) The impact of organisational and management factors on infection control in hospitals: a scoping review.

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