

# Prevention and control of healthcare-associated infections overview

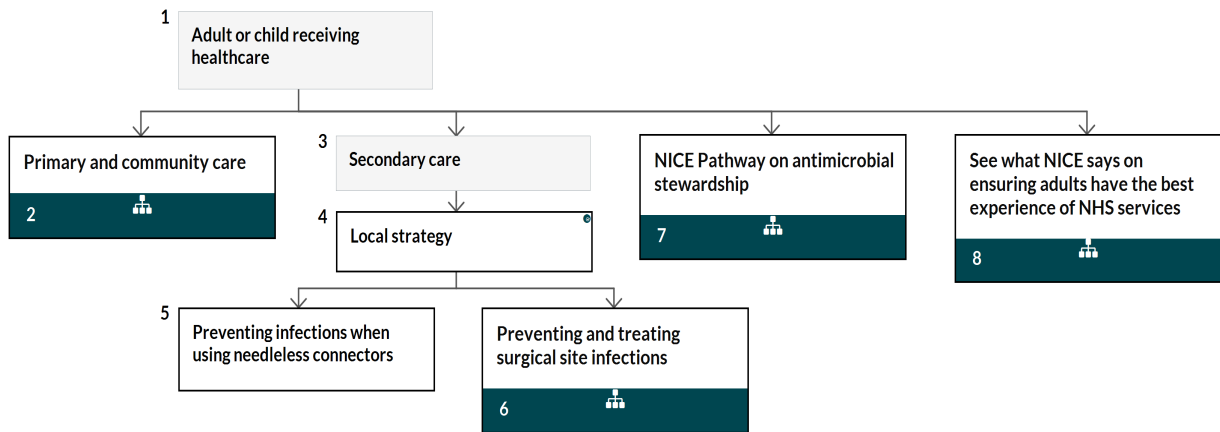
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/prevention-and-control-of-healthcare-associated-infections>

NICE Pathway last updated: 21 January 2020

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



## 1 Adult or child receiving healthcare

No additional information

## 2 Primary and community care

[See Prevention and control of healthcare-associated infections / Prevention and control of healthcare-associated infections in primary and community care](#)

## 3 Secondary care

No additional information

## 4 Local strategy

NICE, in partnership with the Health Protection Agency (HPA), has published the following measures of excellence in infection prevention and control, at a management or organisational level. This guidance is for board members working in (or with) hospitals.

### **Board-level leadership**

Trust boards demonstrate leadership in infection prevention and control to ensure a culture of continuous quality improvement and to minimise risk to patients.

### **Be a learning organisation**

Trusts use information from a range of sources to inform and drive continuous quality improvement to minimise risk from infection.

### **Healthcare-associated infections surveillance**

Trusts have a surveillance system in place to routinely gather data and to carry out mandatory monitoring of HCAs and other infections of local relevance to inform the local response to HCAs.

---

**Workforce capacity and capability**

Trusts prioritise the need for a skilled, knowledgeable and healthy workforce that delivers continuous quality improvement to minimise the risk from infections. This includes support staff, volunteers, agency/locum staff and those employed by contractors.

**Environmental cleanliness**

Trusts ensure standards of environmental cleanliness are maintained and improved beyond current national guidance.

**Multi-agency working**

Trusts work proactively in multi-agency collaborations with other local health and social care providers to reduce risk from infection.

**Communication**

Trusts ensure there is clear communication with all staff, patients and carers throughout the care pathway about HCAs, infection risks and how to prevent HCAs, to reduce harm from infection.

**Admission, discharge and transfer**

Trusts have a multi-agency patient admission, discharge and transfer policy which gives clear, relevant guidance to local health and social care providers on the critical steps to take to minimise harm from infection.

**Patient and public involvement**

Trusts use input from local patient and public experience for continuous quality improvement to minimise harm from HCAs.

**Trust estate management**

Trusts consider infection prevention and control when procuring, commissioning, planning, designing and completing new and refurbished hospital services and facilities (and during subsequent routine maintenance).

## New technology and innovation

Trusts regularly review evidence-based assessments of new technology and other innovations to minimise harm from HCAs and antimicrobial resistance.

For more information about how these measures of excellence can be used in practice, see the NICE guideline on [healthcare-associated infections: prevention and control](#).

NICE has written [information for people visiting, or receiving treatment in, NHS hospitals on the prevention and control of healthcare-associated infections](#).

## Quality standards

The following quality statements are relevant to this part of the interactive flowchart.

### Healthcare-associated infections

1. Surveillance
2. Collaborative action
3. Responsibilities of hospital staff
4. Planning, design and management of hospital facilities
5. Admission, discharge and transfer

### Infection prevention and control

2. Organisational responsibility

### Surgical site infection

7. Surveillance – surgical site infection

## 5 Preventing infections when using needleless connectors

The following recommendations are from NICE medical technologies guidance on [Curoc for preventing infections when using needleless connectors](#).

Curos disinfecting cap shows promise for preventing infections when using needleless connectors, but there is currently insufficient evidence to support the case for routine adoption in the NHS.

Research is therefore recommended to address uncertainties about the clinical benefits of using Curos. This research should:

- determine if Curos adds value to the standard bundle of care for preventing infections when using needleless connectors
- explore the use of Curos in people at high risk of infection, including those whose condition is managed in the community
- clearly define the patient groups included and use consistent outcomes.

See [why we made the recommendations on Curos](#).

## 6 Preventing and treating surgical site infections

See [Prevention and control of healthcare-associated infections / Preventing and treating surgical site infections](#)

## 7 NICE Pathway on antimicrobial stewardship

See [Antimicrobial stewardship](#)

## 8 See what NICE says on ensuring adults have the best experience of NHS services

See [Patient experience in adult NHS services](#)

## Glossary

### **Aseptic technique**

(an aseptic technique ensures that only uncontaminated equipment and fluids come into contact with susceptible body sites, which should be used during any clinical procedure that bypasses the body's natural defences; using the principles of asepsis minimises the spread of organisms from one person to another)

### **Clean surgery**

(surgery involving an incision in which no inflammation is encountered, without a break in sterile technique, and during which the respiratory tract, alimentary or genitourinary tracts are not entered)

### **Clean-contaminated surgery**

(surgery involving an incision through which the respiratory, alimentary, or genitourinary tract is entered under controlled conditions but with no contamination encountered)

### **Contaminated surgery**

(surgery involving an incision in which there is a major break in sterile technique or gross spillage from the gastrointestinal tract, or an incision in which acute, non-purulent inflammation is encountered; open traumatic wounds that are more than 12 to 24 hours old also fall into this category)

### **CRBSI**

catheter-related bloodstream infection

### **Direct patient care**

('hands on' or face-to-face contact with patients, in other words any physical aspect of the healthcare of a patient, including treatments, self-care and administration of medication)

### **Dirty or infected wound**

(an incision undertaken during an operation in which the viscera are perforated or when acute inflammation with pus is encountered (for example, emergency surgery for faecal peritonitis),

and for traumatic wounds if treatment is delayed, there is faecal contamination, or devitalised tissue is present)

### **Hand decontamination**

(the use of handrub or handwashing to reduce the number of bacteria on the hands; in this guidance, this term is interchangeable with 'hand hygiene')

### **Handrub**

(a preparation applied to the hands to reduce the number of viable microorganisms; this guidance refers to handrubs compliant with British standards (BS EN1500; standard for efficacy of hygienic handrubs using a reference of 60% isopropyl alcohol))

### **HCAIs**

healthcare-associated infections

### **Healing by primary intention**

(occurs when a wound has been sutured after an operation and heals to leave a minimal, cosmetically acceptable scar)

### **Healing by secondary intention**

(occurs when a wound is deliberately left open at the end of an operation because of excessive bacterial contamination, particularly by anaerobes or when there is a risk of devitalised tissue, which leads to infection and delayed healing; it may be sutured within a few days (delayed primary closure), or much later when the wound is clean and granulating (secondary closure), or left to complete healing naturally without suturing)

### **Healthcare workers**

(people employed by the health service, social services, a local authority or an agency to provide care for a sick, disabled or elderly person)

### **Healthcare waste**

(any waste produced by, and as a consequence of, healthcare activities)



## Interactive dressing

(dressings designed to promote the wound healing process through the creation and maintenance of a local, warm, moist environment underneath the chosen dressing, when left in place for a period indicated through a continuous assessment process)

## Personal protective equipment

(equipment that is intended to be worn or held by a person to protect them from risks to their health and safety while at work; examples include gloves, aprons, and eye and face protection)

## Surgical site infections

(a surgical wound with local signs and symptoms of infection, for example, heat, redness, pain and swelling, and (in more serious cases) with systemic signs of fever or a raised white blood cell count: infection in the surgical wound may prevent healing, causing the wound edges to separate, or it may cause an abscess to form in the deeper tissues; definitions of the severity of surgical site infections vary and this should be taken into account when comparing reported rates of surgical site infection)

## Sources

[Healthcare-associated infections: prevention and control](#) (2011) NICE guideline PH36

[Curores for preventing infections when using needleless connectors](#) (2019) NICE medical technologies guidance 44

## Your responsibility

### Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility

to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

### **Technology appraisals**

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

### **Medical technologies guidance, diagnostics guidance and interventional procedures**

---

**guidance**

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.