Isolating patients with healthcare associated infection

A summary of best practice

Objectives
• Provide all healthcare providers with a framework to review and improve isolation practices and reduce the risk of the spread of infections such as meticillin-resistant *Staphylococcus aureus* (MRSA), *Clostridium difficile* (*C. difficile*) and other healthcare associated infections (HCAIs), such as norovirus, extended-spectrum beta-lactamase (ESBL) producers and so on.
• Help ensure the safe placement, management and care of patients with infections.

Aim
This best practice summary provides details of evidence-based practice that aims to reduce the risk of transmission of an infection. If followed correctly, the guidance will help to:
• Reduce the number of infections
• Promote safer clinical care of an individual with an infection.

This framework is aimed at staff across all healthcare settings, especially:
• Directors of Infection Prevention and Control (DIPC) and Infection Control Teams (ICTs) and staff
• All ward staff, both clinical and managerial
• Estates, facilities and contract cleaning services staff
• Bed management teams.

It should be referenced by any healthcare staff/providers responsible for patient well-being, including non-NHS providers.

Context
The correct and timely isolation of (either suspected or proven) infected patients can be very effective in reducing the risk of transmission to other patients. In situations such as outbreaks, cohort isolation practices (as defined below), can also be carried out. Through such measures, it is possible to control the spread and minimise the impact of infections, such as MRSA, *C. difficile* and other HCAIs.¹, ², ³, ⁴

In 2003, the then Chief Medical Officer’s report ‘Winning Ways’ set out a strategy for managing HCAIs, including the need for NHS Trust Chief Executives to ensure the appropriate provision of isolation facilities.² The Health Act 2008: Code of Practice for the Prevention and Control of Healthcare Associated Infections (the Code of Practice) states that providers need to demonstrate they are providing adequate isolation facilities.³ The guidance document, ‘*Clostridium difficile* infection: How to deal with the problem’, published in December 2008, outlines evidence and approaches to ensuring good infection control and environmental hygiene.⁴ This best practice summary is based on these documents.

Reason for action
Current scientific thinking recognises the evidence of many years’ experience – i.e. that the isolation of patients with suspected or proven infection is effective in reducing transmission. While the risk of transmission differs between types of infection, the need to separate infected patients from the general patient population still applies.

Isolating a patient should be just one aspect of an organisation-wide strategy, supported by an overall corporate commitment, aimed at reducing and preventing HCAIs.
Trusts must have clear guidelines on how staff should prioritise the need for isolation facilities that are based on national guidance, and local risk assessment that takes account of demand, capacity and epidemiology. When there are competing demands for single rooms, bed managers and ICTs should jointly agree on the appropriate placement of patients. In this situation, (i.e. when the number of infected patients exceeds single room capacity), cohort nursing, (as defined below), can be recommended as a method of isolation. Strategies should also consider minimising the inappropriate movement of patients for non-clinical reasons. The procedures for isolation should be clearly stated and explained to staff, patients and visitors.

**Recommendations**

**Isolation need risk assessment**

Staff should ensure that an **isolation need risk assessment** is incorporated into their trust’s Isolation Policy. The Code of Practice states that “policies should be in place concerning the allocation of patients to isolation facilities, based on local risk assessment”.\(^3\) Trusts should develop their own, locally appropriate isolation need risk assessment processes. The results of these should be documented in the patient medical or nursing notes as appropriate.

**Single-room nursing**

The most effective form of isolation is in a single room with a self-contained toilet and its own hand basin.\(^4\) This should always be the first choice for placement of an infected patient. Organisations should consider the use of bed management tools for the identification of appropriate single room facilitates.

**Cohort nursing**

Cohort nursing patients with the same organism, (meaning the infection is epidemiologically linked, i.e. their symptoms are related by time, based on the date of onset of the first case, and location), is an alternative form of nursing infected patients that should be considered if single room capacity is exceeded.

Staff should:

- isolate infected patients in single rooms, if possible;
- where single room capacity is exceeded, place patients infected with the same organism in dedicated isolation wards;
- ensure, where possible, that care for cohorted patients is by designated staff that are not caring for other patients;
- consider cohorting patients into bays within wards if there is no dedicated ward available; and
- ensure effective isolation, i.e. bays should have doors that can be closed to provide physical separation from other patients.

In areas such as critical care, it may be necessary to cohort patients into specific areas of the unit. Staff should ensure that these areas are physically separate.

**Reduce unnecessary movement**

Isolation policies should include strategies to **minimise the movement** of patients for non-clinical reasons.\(^4\)
Patient guidelines for isolation (single-room nursing and cohorts)

Staff should:
- ensure that an isolation need risk assessment is completed and documented in the patient medical or nursing notes;
- routinely provide affected patients and visitors with an appropriate explanation of the infection and isolation procedures and treatment;
- ensure that rooms, bays and areas used for isolated patients have dedicated hand hygiene and toileting facilities;
- ensure that there is clear signage on the door or wall to alert staff and visitors to infection control precautions; and
- ensure that doors are kept closed (as appropriate – it is recognised that in some situations, e.g. with clinically unstable or confused patients, this may not be possible).

Management of the patient once isolated

1. Hand hygiene and personal protective equipment

High standards of hand hygiene and decontamination minimise the risk of cross-infection (refer to the National Patient Safety Agency’s ‘clean your hands’ campaign and the World Health Organisation’s 5 moments for hand hygiene’ as good examples/ for further information). It is vital to perform hand hygiene before and after each direct patient contact and between contact with different patients.

It is also vital that all staff and visitors entering an isolation room, (i.e. an infective or contaminated environment), use disposable gloves and aprons for all contact with the patient and the patient’s environment, and wash their hands with soap and water before and after each patient contact. It should be noted that alcohol hand gel is not effective against C. difficile spores. Therefore, washing hands with soap and water is always recommended – regardless of the use of hand gel.

Some other essential elements are:
- there must be adequate hand-washing facilities and hand rub/gel available for use before and after contact with the patient (and these practices should be subject to regular monitoring and audit - refer to World Health Organisation’s 5 moments for hand hygiene’);
- disposable aprons should be worn by all staff and visitors assisting in the care of the patient or having contact with their immediate environment;
- disposable gloves should be worn where there is contact with bodily fluids and handling of contaminated items, e.g. dressings;
- the use of gloves does not replace the need to decontaminate hands;
- fans should not be used as these can circulate infectious airborne particles; and
- notes and charts should be kept outside the room/bay/area (in a manner that ensures that patient privacy is protected).

2. Cleaning and decontamination

Local policies for environmental cleaning, equipment decontamination, waste and linen management should reflect required national specifications and be rigorously applied. Compliance with these policies should be subject to regular monitoring and audits.

Some other essential elements are:
- equipment should be single-use only – the equipment used for a patient in isolation should not be shared with other patients;
- multiple patient use equipment must be decontaminated between patients in accordance with local policy and the manufacturer’s instructions;
- linen should be treated as contaminated in line with hospital policy;\(^4\)
- all waste should be categorised as **hazardous waste** and disposed of in line with national guidance;\(^7\)
- Cleaning procedures should be rigorously applied and there should be procedures for **enhanced and terminal cleaning** in place that set out what these involve and when and how these should be used;\(^8\) and
- it should be made clear to all staff exactly which teams and individuals are responsible for undertaking regular cleaning and ensuring the cleaning procedures are adhered to.

Further information on cleaning and decontamination can be found in the *High Impact Intervention–Care bundle to improve the cleaning and decontamination of clinical equipment* (2010). The reference to this needs to be the updated document. It was developed to assist trusts to “achieve compliance under criterion 2 of the Code of Practice 2009 by providing a focus for activity and a method for measuring the implementation of policies and procedures for reducing reservoirs of infection.”\(^9\)

3. Movement

Transfer and movement of patients should be kept to a minimum to reduce the risk of infection transmission and should only be undertaken for clinical reasons.

Some other essential elements are:
- if a transfer is necessary, **the receiving area must be informed** prior to transfer so that effective infection control measures can be put into place;
- **hand hygiene** and **personal protective equipment** procedures should be closely followed when transferring an infected patient;
- the equipment used to transfer the patient, e.g. a trolley, should be **decontaminated** after use in accordance with local policy; and
- sufficient time should be allowed for the terminal clean of the vacated area and environment before it is reused.

### Conclusion

Reducing HCAIs requires every member of staff to make their contribution to effective infection prevention and control. Trusts should have an isolation policy that includes the principles outlined in this summary.

As a matter of routine, all trusts should review their isolation policy in order to determine the best possible isolation practices, given the availability of national and local guidelines and resources. The policy and procedures should be disseminated and understood by all staff, and behavior and practices should be monitored regularly.
References


