

Source Isolation

Key Points

Source Isolation aims to confine the infectious agent and prevent its spread.

Risk assess the need for isolation

Prepare the patient and the isolation/ single room

Plan equipment for the isolation/ single room

Print out a notice to put on the door

Source Isolation Procedure:

- **Use plastic aprons and gloves**
- **Clean hands before you touch the patient**
- **Discard aprons, gloves and other protective clothing into the clinical waste bag in the room**
- **Clean hands when you leave**
- **Arrange special cleaning of the room or bed space**
- **Limit movement of patient to essential purposes only**
- **If transfer/movement is necessary notify the receiving Department in advance**
- **Notify Ambulance Control and Receiving Unit on discharge or transfer**
- **Inform the Infection Prevention and Control Team**
- **Check if the disease is Notifiable**

Introduction

Deciding to Isolate

Decide whether it is appropriate to isolate the patient in a single room. Consider the patient's condition, the availability of isolation facilities, your staffing levels and the susceptibility of other patients in the immediate area. Reading the guidelines for the isolation of patients may help. Record your decision in the patient notes and clearly state the reasons for actions taken.

Risk Assessment

If the number of side rooms is limited, then the following hierarchy of risk should be used to decide who will go into a side room. Airborne infections (points 1-3 below) should be isolated in a negative pressure isolation room. Contact your local Infection Prevention and Control team for further advice.

1. Fever of unknown origin from sub-Saharan Africa.
2. Multi-Drug Resistant Tuberculosis (MDR-TB).
3. Open pulmonary tuberculosis, chicken pox, measles, mumps and rubella.
4. Diarrhoea (eg *Clostridium difficile*, Norovirus).
5. Patients with alert organisms (e.g.: *Streptococcus pyogenes* (Group A Strep), MRSA, ESBL, GRE). Patients with MRSA in wounds and respiratory tract should take precedence over those colonised in carrier sites only.
6. Patients with undiagnosed rash illness, cellulitis.

It may be necessary to cohort all patients with a particular condition (eg diarrhoea) in a section of the bay/ward or whole ward. A decision then has to be made whether to close a ward because of the risk to new admissions. This decision must be made in conjunction with the Infection Prevention and Control team

Procedure

Prior to Moving Patient into Single Room

- Explain the need for isolation to the patient.
- Remove all unnecessary equipment from room.
- Ensure that mattress and pillows have protective covers and that these are intact.
- Place a Source Isolation notice on the door of the room.
- Record in the nursing care plan/ medical notes the reason for isolation, the date started and any special precautions necessary to prevent the spread of infection.
- Inform the Infection Prevention and Control Nurse.
- If appropriate, inform domestic services that the patient is in isolation.

Equipment Required (Outside Room)

- Source isolation notice. (see website)
- Disposable gloves and plastic aprons.
- Non-sterile disposable gloves.
- Patient's charts (except ICU).
- Alcohol handrub.

Equipment Required (Inside Room / Lobby)

- Non-sterile disposable gloves.
- Skin disinfectant for hand washing and paper towels.
- Clinical waste bag for all waste (in a foot-operated bin).
- “Sharps” disposal box, preferably wall-mounted This may be removed based on the assessment of risks such as self harm, iv drug abuse, children etc.
- Dedicated cleaning equipment (if space available).

Equipment Required (in Ward)

- Wear aprons when in direct contact with the patient and handling infected items, dressings etc. or working around the patient’s bed.
- Use in instances when splashing/contamination is anticipated.
- Aprons must always be changed between patients, after carrying out a ‘dirty’ procedure and before carrying out an aseptic technique.

Staff Procedure (Before Entering the Room)

- Remove white coats or outside clothing.
- Remove wrist watch and jewellery and roll up sleeves.
- Put on a disposable apron.
- Staff not known to be immune to the suspected disease, are advised not to enter the isolation room. This is particularly important for chicken pox, measles, mumps and rubella.

Staff Procedure (When Inside Room or Visiting Bed Space)

- If a procedure is to be carried out, including clinical examination, wash and dry hands thoroughly or, if hands are clean, use alcohol handrub. Then put on non-sterile gloves.
- Perform patient task (change disposable gloves if they become soiled during the procedure).
- Once hands are gloved Do not touch the patient or anything else in the room unnecessarily.
- Do not sit on the bed.
- Sharps must be disposed of directly after use into the sharps box inside the isolation room

Staff Procedure (Before Leaving the Room or Bed Space)

- Remove gloves and apron and discard into clinical waste bag.
- Bag linen in alginate bag.
- Wash hands in antiseptic hand wash and dry thoroughly.

Staff Procedure (Outside Room)

- Close the door after leaving the room.
- If removing soiled linen place alginate bag into appropriate outer bag.
- Wash hands again using antiseptic hand wash.

OR

- Rub hands using alcohol handrub.

Advice to Visitors

- Visitors should be informed by staff of the infection risks and precautions that need to be taken.
- Limit visitors to two at a time and restrict further if appropriate.
- Visitors must report to the senior nurse in the ward.
- Visits by children should be discouraged.
- Visitors not known to be immune to the suspected disease are advised not to enter the isolation room. This is particularly important for chicken pox, measles, mumps and rubella.
- Visitors should be advised to wash their hands or use alcohol handrub before entering or leaving the room and not to visit other patients.
- Visitors should not sit on the patient's bed.
- Visitors should not eat in the patient's room.
- Visitors should not bring food or flowers.

Equipment from the Room

- If equipment is removed from the room it must be decontaminated before storage or use on another patient.

Additional Action on Discharge of the Patient

- Movement of patients to other wards, departments or hospitals should be kept to a minimum.
- If the patient is being transferred to another ward, facility or hospital for ongoing care the receiving department must be notified in advance of any suspected /confirmed infectious condition, to allow the appropriate precautions to be taken.

Room Decontamination

Daily cleaning:

- Frequency of daily cleaning is dependent on the patients condition and the local policy
- Surfaces, ledges, furniture and bed locker will be cleaned with general purpose detergent and then with disinfectant or combined detergent/disinfectant.
- Room surfaces should be done first, then bathroom fittings, then toilets.
- The floor should be damp-cleaned with detergent solution, unless otherwise indicated by the IPCT, using a mop with a head which can be discarded or laundered.

Terminal cleaning:

- Bedscreens and curtains will be taken down and sent for laundering in an alginate bag. Disposable bedscreens and curtains will be disposed of in a clinical waste bag.
- When the surfaces have been cleaned with detergent, all hard surfaces must be wiped with fresh chlorine-releasing solution; 1,000 ppm available chlorine (or other approved disinfectant) and allowed to dry or use a combined detergent/disinfectant solution.
- On completion of the cleaning, the bucket must be cleaned and the mop head disposed of or sent for laundering. The cleaning staff should then remove the plastic apron and discard into the yellow bag.
- Remove gloves and wash hands before leaving the room and again after disposing of the yellow bag. Later, return and replenish soap, paper towels, replace curtains etc. Inform local nursing staff and supervisor that the task is complete.
- If a room is carpeted, seek advice from the Infection Prevention and Control Nurse.
- In some circumstances further decontamination, using Vaporised Hydrogen Peroxide, may be required. Your local Infection Prevention and Control Team will advise.

References

1. DHSSPSNI (June 2005) Protecting Patients and Staff- A Strategy for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2005-2010.
Available at <http://www.dhsspsni.gov.uk/publications/2005/prevention-of-HCAIs.pdf>
2. DHSSPSNI (March 2006) Changing the culture-An Action Plan for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2006/2009.
Available at http://www.dhsspsni.gov.uk/hcai_action_plan.pdf
3. DHSSPSNI (October 2006) Ward Sisters' Charter An Action Plan for Cleaner Hospitals in Northern Ireland Re 93/2006.
Available at http://www.dhsspsni.gov.uk/ward_sisters__charter.pdf
4. NHS Estates. Providing single rooms for patients: a study of the benefits to patients and staff within the NHS in England (November 2004).
Available at <http://knowledge.nhsestates.gov.uk>
5. NHS Estates.HBN 4 Supplement 1: Isolation facilities in acute settings (28 February 2005).
Available at <http://knowledge.nhsestates.gov.uk>
6. Ayliffe GAJ, Fraise AP, Geddes AM, Mitchell K. Control of hospital infection. A Practical Handbook. 4th Edition 2000 Oxford: Butterworth and Heinemann.

The following related DHSSPSNI PEL documents are available from the Department of health, social services and public safety Extranet site. You may need to seek specific access for these from IT services where you work, or from the DHSSPSNI directly.

DHSSPSNI PEL(08)07 Standards for the provision of Single bedrooms in Acute and Local Hospital.

DHSSPSNI PEL(05) 13 Cleanliness Matters -A Regional Strategy for Improving the Standard of Environmental Cleanliness in HSS Trusts.

DHSSPSNI HSS (MD) 41 -2004 Standards for Mechanically Ventilated Isolation Rooms in N.I.

DHSSPSNI PEL (07)09 Hospital Isolation Facilities ; Requirements for Health and Social Care in .N.I incl Appendix 1&2.

DHSSPSNI HTM 07 - 01 Environment and Sustainability Safe Management of Healthcare Waste [DH , London, 2006].

DHSSPSNI PEL (05) 07 The use of Infra-Red Operated Water Taps.

DHSSPSNI PEL (05) 10 HBN 30: Infection Control in the Built Environment.

DHSSPSNI PEL (01) 11 The Management of Clinical Waste in the Delivery of Health and Social care in the Community.

DHSSPSNI PEL (04) 04 Standards for Space around the Acute Beds in Wards And Acute Single Rooms in Hospital.

DHSSPSNI PEL (94) 34 Decontamination of equipment prior to inspection service or repair.