

## Protective Isolation

### Key Points

This guidance relates to patients who are severely immunocompromised  
(see definition below)

Such patients need to be in the protective environment of a positive  
pressure isolation room.

This type of isolation is only available in specialised units such as the Infectious Diseases Unit in the Royal Hospitals or the Haematology/ Oncology units in Belfast City Hospital. If you have a patient that may require the protective environment of a positive pressure isolation room, you should contact one of these units for advice.

Staff who have any infectious disease (including the common cold and active cold sores) must not have contact with a severely immunocompromised patient

### Definitions

**Severe Immunocompromised** - Having a CD4 count <200 cells/[ $\mu$ ]l or <14%1

**Severe Neutropenia** - When ANC (Absolute Neutrophil Count) falls below 500 per mm<sup>3</sup> (0.5 x 10<sup>9</sup> /L) [www.globalrph.com/anc.htm](http://www.globalrph.com/anc.htm).

If patients fall into these categories they should be placed in the protective environment of a positive pressure isolation room.

## Procedure

### *Preparing the Patient and Isolation Room*

- This is a specialised environment engineered with High Efficiency Particulate Air (HEPA) filtration to meet Health Estates Standards.
- Explain the need for isolation to the patient.
- The patient should remain in the room except for essential diagnostic or therapeutic procedures that cannot be performed in the room.
- If the patient needs to leave the room they should wear a respiratory protection (FFP3 respirator mask) if it is anticipated that they will have exposure to construction work.
- Remove all unnecessary equipment from the room.
- Ensure that the room has been cleaned and that all equipment and surfaces in the room are clean and dust free.
- Place Protective Isolation notice on the door.
- Record action in the nursing care plan/ medical notes (include reason for isolation, date started and any special precautions thought necessary).
- Inform Infection Prevention Control Nurse.

**REMEMBER:** in order to protect the immunosuppressed individual, staff and visitors who are unwell in any way, for example with coughs and colds, sore throat, herpes simplex, diarrhoea or infected skin lesions, must NOT enter the isolation room.

Patients who require Isolation in a Protective Environment may also require Transmission based precautions if they have a Transmissible Infection.

### *Equipment Required (Outside Room)*

- Protective Isolation Notice. (see website)
- Disposable gloves and plastic aprons.
- Patient's charts.
- Alcohol handrub.

### *Equipment Required (Inside Room / Lobby)*

- Skin disinfectant for hand washing and paper towels.
- Alcohol handrub.
- Non-sterile disposable gloves.
- Sterile gloves (for invasive procedures).
- Foot operated waste bins for Clinical and domestic waste disposal .
- "Sharps" disposal box, preferably wall mounted. This may be modified based on the assessment of risks such as self harm, iv drug abuse, children.

### ***Equipment Required (in Ward)***

- Have available on the ward the appropriate chemical disinfectant for decontamination of equipment and for dealing with spillages (e.g. chlorine-releasing agent kept in a locked cupboard).

### ***Staff Procedure (Before Entering the Room)***

- Staff should remove white coats, jackets or outside clothing
- Remove wristwatch and all jewellery except single plain band ring.
- Wash hands using antiseptic handwash and dry thoroughly, or use alcohol handrub. Then put on plastic apron and gloves if intending to have direct patient contact. It may be more convenient to wash hands or use alcohol handrub inside the isolation room or lobby.

### ***Staff Procedure (On Leaving Room)***

- Close the door.
- Remove gloves and apron and discard into clinical waste bag.
- Perform hand hygiene using liquid soap OR Use alcohol handrub.

## **Domestic Cleaning**

- Disposable or separate designated cleaning equipment should be kept for this room.
- Staff who clean this room must have training and competency in the correct cleaning techniques.
- Cleaning methods which disperse dust must be avoided.
- There should be no carpet, soft furnishings, or upholstered furniture in the room.
- There should be no flowers (fresh or dried) or potted plants in the room.
- The room should be cleaned and disinfected as specified by the Infection Prevention and Control Team.

## On Patient Discharge

### Clinical Staff

- Deal with any spillages of blood, secretion or excreta according to the spillage policy.
- Clean used medical or nursing equipment with general purpose detergent in hot water and chlorine releasing agent as appropriate.
- Strip the bed and dispose of linen according to the linen policy

### Domestic Services Staff

- Cleaning staff should then perform a discharge clean as appropriate. If patient is colonised or infected with an alert organism terminal cleaning should be undertaken in accordance with source isolation guideline.
- Equipment sent for service or to other units must be accompanied by the “Decontamination of equipment prior to inspection, service or repair” clearance certificate

## References

1. Unreported AIDS-Defining Opportunistic Illnesses in Persons Reported With HIV-Related Severe Immunosuppression. JAIDS Journal of Acquired Immune Deficiency Syndromes. 22(1):71, September 1, 1999. Lobato, Mark N. \*; Klevens, R. Monina \*; Li, Jianmin +; Slutsker, Lawrence \*; Fleming, Patricia L.
2. DHSSPSNI HSS (MD) 41 -2004 Standards for Mechanically Ventilated Isolation Rooms in N.I.

### General References

3. DHSSPSNI (June 2005) Protecting Patients and Staff- A Strategy for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2005-2010.
4. DHSSPSNI (March 2006) Changing the culture-An Action Plan for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2006/2009.

5. DHSSPSNI ( October 2006) Ward Sisters' Charter An Action Plan for Cleaner Hospitals in Northern Ireland Re 93/2006.
6. CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007.
7. Ayliffe GAJ, Fraise AP, Geddes AM, Mitchell K. Control of hospital infection. A Practical Handbook. 4th Edition 2000 Oxford: Butterworth and Heinemann.
8. Parker LJ. Current recommendations for isolation practices in nursing. Br J Nurs 1999; 8:881-7 Is Protective Isolation necessary? Nursing Times Plus. 2000;96(46).

**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 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