

Policy No 22

Protective Isolation

Protective isolation (reverse barrier nursing) is the physical separation of a patient at high risk from common organisms carried by others. The aim of this policy is to prevent the transmission of infection to an immunocompromised patient. It does not involve the special precautions of full protective isolation which aims to protect from commensal (endogenous) infection in patients whose neutropenia is likely to be prolonged.

Standard Infection Control precautions must be observed at all times with all patients including those in source or protective isolation.

Scope of Policy

This policy applies to:

- All patients at LTHT deemed as severely immunocompromised.
- All staff employed at LTHT who have direct patient contact.
- All students practicing at LTHT who have direct patient contact.

Objective

Minimise the risk of infection in immunocompromised patients

Key points

- Protective isolation is necessary for patients with a severely compromised immune system. This is usually indicated if a patient's neutrophil count falls, or is expected to fall, below $0.5 \times 10^9/l$.
- The patient must be nursed in a single room with a hand wash basin, and preferably en-suite toilet.
- If an en-suite toilet is not available a commode for the sole use of the patient should be kept in the isolation room.
- The commode should be cleaned thoroughly with Chlorclean (1000ppm) after each use.

- Ensure the isolation room door is closed at all times, apart from the necessary entrances and exits.
- Limit the number of staff entering the isolation room. Reducing the number of staff who comes into contact with the patient will further reduce the risk of cross-infection.
- Staff who are nursing patients with infections should avoid nursing patients in protective isolation during the same span of duty in order to reduce the risk of cross infection.
- Staff with infections should not be working in the environment.
- Regular assessment and evaluation of the situation, in conjunction with the medical staff and/or the Infection Control Team, is necessary to decide if isolation of the patient remains the most appropriate form of care.
- Psychological support and reassurance must be given to the patient whilst in isolation.
- Ensure a protective isolation notice is displayed on the door.
- Ensure all staff are aware of the necessary precautions (see pg3 below).

Definitions

Protective isolation

A range of practices used in hospital to protect immunocompromised patients from infection.

Immunocompromised

The term applied to patients whose immune mechanisms are deficient. This may be due to immunologic disorders, infection, congenital immune deficiency syndrome, disease or immunosuppressive therapy.

1. How to prepare the room

- Ensure the room is meticulously cleaned using Chlorclean (1000ppm available chlorine) before the patient is admitted.
- Ensure that all unnecessary equipment and furniture are removed from the room in order to facilitate ongoing cleaning. Upholstered furniture/furnishings should be avoided in rooms occupied by immunocompromised patients.
- Discourage the patient from keeping unnecessary belongings in the room, balancing the need for psychological care of the isolated patient whilst facilitating cleaning.

- The equipment in the room must, where possible, be dedicated for use with that patient.
- Keep charts and notes outside the room to reduce the risk of contamination.
- All equipment must be cleaned thoroughly with detergent and water or alcohol wipes before use.
- Ensure that the hand wash basin is stocked with appropriate hand hygiene products (soap, alcohol gel/liquid, paper towels).
- Ensure single use gloves and plastic aprons are available.
- Keep the door of the room closed. Ideally the air in the room should be under slightly positive pressure, i.e. the airflow should be from the room to the corridor and not from the corridor into the room.

2. How to care for the patient

- To reduce the risk of cross infection try to limit the number of visitors and **discourage small children from visiting.**
- **Visitors with symptoms of infection must not be allowed.**
- Hand decontamination **must be** undertaken by everyone prior to entering the room.
- Bed linen should be changed daily.
- Skin should be kept clean by daily bathing or washing.
- Patients should receive education on good hygiene practices. This should include washing hands before eating and after toileting.
- Patients may use the bath provided that a high standard of cleanliness is maintained. Showers are contraindicated where the water source is at risk from being contaminated. Contact Infection Control for advice.
- Flowers and plants have not been directly linked to infection in immunocompromised patients, however they may be a reservoir for Gram negative bacteria or fungal spores therefore should only be permitted after careful consideration of the risks.

3. Hand Hygiene

- **Hand Hygiene.** Always wash hands thoroughly with soap and water or use alcohol based hand rubs before entering the room or immediately after entering the room. Alcohol based hand rubs are an alternative to handwashing on visibly clean skin or a supplement to hand washing to achieve a higher level of disinfection (see Hand Hygiene policy).

- Encourage the patient to cleanse their hands before eating and after going to the toilet.

4. Protective clothing

- Gloves are not necessary except for aseptic procedures (sterile) and/or contact with blood or body fluids (see Standard Infection Control Precautions and LTHT Glove policies)
- Single use plastic aprons should be worn during patient contact.
- Prior to leaving the room (except if transporting excreta to sluice) remove apron and gloves then discard promptly into an infectious waste (orange) bag. Wash and dry hands thoroughly.
- Other items of protective clothing, e.g. masks, overshoes, hats, are unnecessary for routine protective isolation.

5. Disposal of body fluids, waste and linen

- Dispose of all excreta promptly. Use protective cover for bedpans/urinals/vomit bowls when transporting to the sluice room.
- Protective clothing used within the isolation room may be worn to the sluice room but must be discarded immediately into an infectious waste (orange) bag after disposal of excreta.

6. Diet

- Drinking water should be obtained from a designated filtered tap.
- Bottled concentrated fruit drinks made from whole fruit and containing sugar are invariably pathogen free.
- Sealed packets of fruit juice (long shelf-life varieties) have been pasteurised and remain pathogen free until opened. These can be used for single patient use if consumed on the same day of opening.
- Contact the specialist dietician for immunocompromised patients for specific advice.
- All crockery/cutlery must be decontaminated in a dish washer with a final rinse temperature of 80°C.
- Further dietary information is available in the Yorkshire Cancer Network 'Safer Eating' guidelines.

7. Cleaning

- Cleaning equipment should be kept for the sole use of the patient (white cleaning equipment).
- Single use gloves and aprons must be worn when cleaning the isolation rooms, removed when finished and hands washed before leaving the room.
- Surfaces and furniture should be damp dusted daily using single use cleaning cloths and Chlorclean (concentration of 1000 ppm available chlorine). Floors should be mopped daily using Chlorclean.
- Mop head should be changed and laundered daily.
- Bucket and mop handle should be cleaned and dried and stored in the isolation area.
- The vacated room must be cleaned thoroughly before it can be reoccupied.

8. Investigations/visits to other departments

- Ideally, investigations should be performed in the isolation room. Visits to other departments should only take place with medical permission.
- If it is deemed essential that the patient attends another department then he/she should not be placed in a communal waiting area and should never be placed in the same room, or adjacent to, people (staff or patient) with a known infection.

References and Further Reading

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