



Title	Infection Control Manual Section 3.1 – Isolation Precautions and Infection Control Care Plan
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TRANSMISSION BASED PRECAUTIONS

Transmission Based Precautions, in addition to Standard Infection Control Precautions (SICP), are a set of measures that should be implemented when patients/clients are either suspected or known to be infected with a specific infectious agent, when aiming to prevent and control spread, particularly in relation to Healthcare Associated Infections (HAI). Transmission Based Precautions are categorised according to the route of transmission of the infectious agent such as droplet, contact and/or airborne. [HPS 2009]

3.1 ISOLATION PRECAUTIONS & INFECTION CONTROL CARE PLAN

Aim: Appropriate isolation measures are implemented for all those at risk of transmitting or acquiring pathogenic organisms

1. Introduction

The healthcare environment, healthcare policies and healthcare staff behaviour and practice are designed to limit the spread of infection within the healthcare facilities. For a century it has been recommended that patients with infectious disease should be placed in segregated facilities to prevent the spread of infection that is readily spread from person to person. In the United Kingdom two national prevalence studies have shown that approximately 10% of patients in hospitals are admitted with infection and a further 10% acquire infections whilst they are receiving care.

Patients suffering from communicable diseases, infected or colonised with multiple antibiotic resistant organisms, together with those who are at special risk of acquiring infection, usually require certain modifications in their management. This may include isolation, which normally means nursing in a single room. The type of precautions required, however, will depend on many factors e.g.

- the type of infection or colonisation and the mode of spread of the pathogen
- the need of protective isolation (patient at risk) or source isolation (patient at risk to others)
- the risk to other patients e.g. patients on special units, the elderly, the very young, the immuno-compromised
- the facilities available
- duration of isolation depends on the type and stage of infection or colonisation.

2. Rationale for isolation precautions

Transmission of a pathogen resulting in colonisation or infection requires a source, a susceptible host, and a route for transmission to

occur between the two. Isolation precautions aim to interrupt the last of these three elements.

The placement of a patient into isolation should never be undertaken as a matter of convenience. The patient's underlying condition is the driver for determining the provision of care and where it should be delivered.

Whenever isolation of a patient is considered, the disadvantages must be weighed against the benefits and the need for continuing isolation be reviewed on a daily basis (Table 1).

Table 1: The Advantages and Disadvantages of Patient Isolation

ADVANTAGES	DISADVANTAGES (RISKS)S
Containment of infection risk	Detrimental psychological effect on patient, patient's relatives and visitors
Protection of other patients, visitors and staff	Increased dependency on staff for support, both emotional and social, including trivial tasks, e.g. buying a newspaper
Clear identification of infection risk	Particular psychological vulnerability of children whether as the patient or visiting relatives
Provides a focus to allow easier implementation of control measures	Jeopardy to patient care through inappropriate restriction of patient access to investigations and rehabilitation
Provides a focus for training measures in respect of specific risk patients	Jeopardy to patient care through restriction on staff access
A positive activity that can help deflect potential litigation	Added cost, e.g. construction, equipment and staff
Complies with Health & Safety at work requirements for a safe environment	Inefficient use of hospital space
	Staff stress, especially in 1:1 nursing of isolated patients

The appropriate method of isolation in a particular case depends primarily on the route of transmission of the pathogen.

3. Direct and indirect contact spread

This means the transfer of a pathogenic organism either by direct contact by hands of carers or indirectly via equipment and other fomites such as needles, instruments, stethoscopes, bedding, mattresses or chairs. This is the most important and frequent form of spread of Healthcare Associated Infection (HAI) and is prevented by the use of Standard Infection Control Precautions, in particular hand hygiene.

4. Droplet

Large droplet air-borne
Small Droplet air-borne

Droplet spread occurs from particles that are generated by the production of aerosols. Most commonly this occurs from the upper airway of people coughing, sneezing and talking but they can also be produced by procedures such as suctioning and endoscopy. Other sources of particles might be skin squama or dust.

The key physical feature of droplets containing micro-organisms is that they do not remain suspended in air for long and hence have a limited range of approximately 1 metre from the source. As a result special ventilation is not necessary to prevent droplet transmission. General spread of organisms via this route in an open ward is prevented by the positioning of adjacent beds no closer than 2.7 metres centre to centre. Spread of infection via this route is prevented when necessary via the physical barrier of a single room accommodation, SICP, in particular the use of PPE, respiratory precautions and hand hygiene.

More prolonged airborne transmission arises when smaller particles (<5 micron) are formed and micro-organisms remain suspended in the air for prolonged periods (e.g. following use of a high-speed dental drill). In these forms, organisms may travel for considerable distances to be inhaled or contaminate exposed tissues and mucous membranes. Mechanical ventilation in areas where these procedures are performed can be useful in diluting and removing these sources.

5. Faecal – Oral

This includes the transfer of gastrointestinal pathogens by ingestion through the contamination of food and water usually by hand transfer of organisms.

6. Vector – borne

Vector transmission has never been important in the UK; however, changes in climatic conditions in the UK and global travel may result in infections and vectors being imported which may require further consideration.

7. Categories of isolation in the Borders hospitals

Source Isolation:

Source isolation nursing prevents the spread of infection among patients; it is described as source isolation because the patient is the potential source of infection and the main principle is to isolate the organism, not the patient.

Protective Isolation:

Protective Isolation is used to protect highly susceptible hospital patients from infection.

Both categories of isolation require placement in a single room and staff will employ SICP.

If there is any doubt about the correct precautions to be taken with any patient, please contact a member of the Infection Prevention Control Team.

8. Responsibility for isolation

The medical practitioner in charge of the patient is ultimately responsible for placing the patient in the appropriate isolation facilities to protect that patient or other patients, visitors and healthcare staff. The Care Team should inform and seek advice from the Infection Prevention Control Team if in doubt of the appropriate action.

The Charge Nurse for the area will normally inform and seek advice from the Infection Control Nurse/s (Icons). They should also inform their duty manager and General Services Manager.

The Charge Nurse will display an appropriate 'isolation notice' on the outside of the isolation room / area. They are also responsible for ensuring that proper procedures are followed and that visitor, other healthcare and general services staff are aware of the precautions they need to take and the practices they need to adopt.

Everyone is responsible for complying with the Infection Control Care Plan and its regular review ensuring they are aware of any special precautions and that they follow them. Failure to observe the proper code of practice will put other patients, staff, families, and visitors at risk.

Single Room facilities are usually only required in a hospital setting, therefore this would seldom affect patients in their own homes. Primary Care staff are asked to contact a member of the Infection Prevention Control Team, if advice is required.

9. Isolation procedures

Adherence to the guidelines for each category of isolation is of paramount importance in order to protect the patient or the environment and minimise the risk of transmission of potential or actual pathogens to patients, visitors and staff. Isolation procedures should only be modified after consultation with a member of the Infection Prevention Control Team.

On admission into an isolation facility it is important that an adequate amount of time is spent with the patient and his or her relatives to explain the facilities, the restrictions and procedures which will be observed and experienced and the reasons for them. Information leaflets about specific infections can be a useful adjunct.

As far as possible non-immune or pregnant staff should not look after patients with infectious diseases.

10. The isolation room

The room should be kept tidy in order to facilitate clinical care of the patient and routine domestic cleaning of the area. Only essential equipment should be kept inside the room.

The room should ideally contain:

- Wash hand basin compliant with national specification
- wall mounted liquid soap dispenser
- wall mounted paper towel dispenser
- a foot operated pedal bin for 'Clinical Waste'
- alcohol Hand rub – the decision to place this will follow risk assessment
- sphygmomanometer with stethoscope
- vinyl covered chair and otherwise wipe-able furnishings if they are required

Outside the room there should be wall-mounted dispensers of personal protective clothing, that is, disposable plastic aprons and non-sterile procedure gloves. Masks and eye protection/face visor should also be available if required.

Patients' charts should be stored outside the room and should not be taken in.

The appropriate source or protective isolation card should be attached to the room door.

Any equipment removed from the room or taken in and removed during admission should be decontaminated in accordance with the Cleaning and Disinfection Policy ([see Section 8 of this manual](#)).

11. Infection Control Care Plan

The Infection Control Care Plan must be completed for patients

12. Further points to note

There are a small number of specific infections due to dangerous pathogens, e.g. Multi Drug Resistant (MDR) tuberculosis where either isolation is mandatory or additional special requirements are needed out with the facilities available in the Borders Hospitals.

Patients known to have, or strongly suspected of having infections that may present these problems are admitted directly to a specially equipped Infectious Disease Unit.

The appropriate unit for the Borders is:

Infectious Disease Unit
Western General Hospital
Crewe Road
Edinburgh
EH4 2XU
Telephone: 0131 537 2820
Speed Dial: 5238

Also see specific policies for Viral Haemorrhagic Fever, TB and MDR Tuberculosis.

NHS BORDERS INFECTION CONTROL CARE PLAN

This care plan reflect the Infection Control policies most frequently used within NHS Borders, but other policies can be added as required to meet the needs of individual patients.

The Infection Control Care Plan is required to sit within all in-patient nursing or unitary notes across all clinical boards.

How to use the care plans

The policy and its relevant section are highlighted. If staff are unsure of the details of the named policy/guidelines/advice then refer to the NHS Borders Infection Control Manual.

Complete patient details at top of Infection Control Care Plan

Hand Hygiene/ Standard precautions apply to all inpatients and therefore it states that these precautions are in place until discharge - no further detail needs to be documented for this.

Other precautions required: circle the section of the precaution required, and the responsible member of staff dates and signs it in the appropriate table.

Ensure the review section or cancellation table is signed and dated as necessary.

For patients who are in for a length of time, a new Infection Control Care Plan will be required, after the 2nd review date is accomplished. A continuation sheet is available if required for documentation purposes.

Please note 'MRSA risk' refers to the risk that a MRSA positive patient presents to those other patients in the same care area. See MRSA policy [[section 7](#)] for detail.

INFECTION CONTROL CARE SHEET

Ward/Dept/Area:

Patient Details:

The following infection control policies/guidelines/advice are located within the NHS Borders Infection Control

		Date/ Signature of staff member	1 ST Review Date/ Signature of Staff Member	2 ND Review Date/ Signature of Staff Member	Cancellation Date/ Signature of Staff Member
Hand Hygiene Standard Precautions	Section 2 Section 2	These precautions are in place until discharge These precautions are in place until discharge			
Enteric Precautions	Section 3				
Management of patients with (Clostridium difficile) C.diff	Section 3				
Isolation Precautions - type	Section 3				
Place Isolation sign on door to patients room	Section 3				
Ask visitors to wash and dry hands before leaving room/ward/area	Section 3/7				
MRSA High/Medium/Low risk - circle relevant one	Section 7				
Alert Sticker on notes for MRSA/Inoculation Risk	Section 7				
Others: please state					

INFECTION CONTROL CARE SHEET cont

Date	Information Communicated	To	From