

Isolation of Patients

Key Points

Know how infections spread and use Standard Precautions for all patients

Does the patient need Source Isolation or Protective Isolation?

Are visitors a risk or at risk?

Explain the need for isolation to the patient

Explain the need for isolation to the visitors

Use Information Leaflets where available

Introduction

In order to prevent the spread of micro-organisms, it is often necessary to isolate patients.

1. Source Isolation aims to confine the infectious agent and prevent its spread. (see website for more information)

2. Protective Isolation aims to protect an immunocompromised patient who is at special risk from environmental organisms or those carried by attending staff and visitors. (see website for more information)

Patients with certain illnesses ***should be isolated immediately*** for example:

- Diarrhoea and/or vomiting
- Undiagnosed rashes and fevers
- Newly diagnosed or suspected “open” tuberculosis
- Suspected Group A streptococcal infection (i.e. acute sore throat or cellulitis)
- Patients shedding Meticillin-resistant *S. aureus* (MRSA), glycopeptide-resistant enterococci (GRE), aminoglycoside-resistant Gram-negative organisms, etc
- Inter-hospital transfers known to be colonised with resistant bacteria

For further advice, contact a member of your local Infection Control Team

The decision to isolate a patient is taken by the medical team caring for the patient, in consultation with the nursing staff and Infection Prevention Control Team. Isolation is usually carried out in single rooms with hand washing facilities and with the door closed. Occasionally, we may consider *cohort nursing*: placing the patient in a room with other patients who are infected or colonised with the same microorganism. Cohorting should only be done as a last resort and on the advice of the local Infection Prevention and Control team.

A basic understanding of the way in which particular organisms are spread will enable staff to apply a common sense approach to isolation, thus providing a safe environment and avoiding unnecessary psychological trauma to patients and relatives. Information on specific diseases is given in the table below.

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Antimicrobial resistant microorganisms: Meticillin Resistant Staphylococcus Aureus (<u>MRSA</u>) Extended Spectrum Beta-Lactamase (<u>ESBL</u>) producing bacteria, Others as stipulated by the Infection Control Team	YES	NO
Abscess – Minor	NO	NO
Abscess - Major	YES	NO
Acquired immune deficiency syndrome (AIDS)	NO (Unless bleeding)	NO
Actinomycosis	NO	NO
Adenovirus	YES	NO
Amoebiasis	YES	NO

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Anthrax – Pulmonary or Systemic	YES	NO
Anthrax - Cutaneous	NO	NO
Aspergillosis	NO	NO
Bronchiolitis in infants	YES	NO
Brucellosis	NO	NO
Burns	YES	POSITIVE PRESSURE if 2 nd or 3 rd degree
Candidiasis (Moniliasis, thrush)	NO	NO
Cat scratch fever	NO	NO
Cellulitis – uncontrolled discharge	YES	NO
<u>Chickenpox (varicella zoster)</u>	YES	NEGATIVE PRESSURE
Shingles (herpes zoster)	See under Herpes Zoster	See under Herpes Zoster
Chlamydia trachomatis	NO	NO
Conjunctivitis Gonococcal	NO	NO
Conjunctivitis acute viral and aetiology unknown	YES	NO
Coxsackievirus	YES	NO
Creutzfeldt-Jakob Disease (CJD)	NO	NO
Cytomegalovirus	NO	NO
Diphtheria – cutaneous	YES	NO NO

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Diphtheria - pharyngeal		
Ebola	YES	NEGATIVE PRESSURE Transfer to Infectious Disease Unit RVH
Eczema vaccinatum	YES	NEGATIVE PRESSURE
Encephalitis	NO unless indicated by a specific microorganism	NO
Erysipelas	YES	NO
Fleas	YES	NO
Gas Gangrene	NO	NO
Gastroenteritis <u>Clostridium difficile</u> <u>Norovirus</u> Campylobacter Salmonella species E Coli 0157 Cryptosporidium Others (e.g.: Giardia lamblia, Rotavirus, Adenovirus, Shigella)	YES	NO
German Measles - Rubella	YES	NO
Glandular fever	NO	NO
Gonorrhoea	NO	NO
Haemophilus influenza	YES if epiglottitis, meningitis or	NO

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
	septicaemia	
Hand / Foot and Mouth Disease	YES	NO
Hepatitis A and E	YES	NO
Hepatitis B/C/D/G	NO (unless bleeding)	NO
Herpes Simplex types 1 & 2 (adults)	NO (except if mucocutaneous, disseminated or primary severe)	NO
Neonates	YES	NO
Herpes Zoster (shingles)	YES	NEGATIVE PRESSURE only if disseminated or if localised in an immunocompromised patient
Histoplasmosis	NO	NO
Immune deficiency secondary to disease or therapy	YES	POSITIVE PRESSURE In some circumstances At discretion of clinician
Impetigo	YES	NO
Infectious Mononucleosis	NO	NO
Influenza The use of Negative air pressure is recommended for patients in whom influenza is diagnosed or suspected. Many hospitals encounter difficulties when admitting multiple	YES	NEGATIVE PRESSURE

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
patients with suspected influenza during community outbreaks. If sufficient single rooms are not available consider cohorting patients (see above) Avoid room sharing with high risk patients.		
Lassa Fever	YES	NEGATIVE PRESSURE Transfer to Infectious Disease Unit RVH
Legionnaire's Disease	NO	NO
Leprosy	NO	NO
Leptospirosis	NO	NO
Lice Head Body Pubic	NO YES until treated YES until treated	NO NO NO
Listeriosis	NO	NO
Listeriosis in neonates	YES	NO
Malaria	NO	NO
Marburg Virus	YES	NEGATIVE PRESSURE Transfer to Infectious Disease Unit RVH
Measles (Rubeola)	YES	NEGATIVE PRESSURE



DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Meningitis		
Meningococcal)	YES	NO
Pneumococcal	NO	NO
Haemophilus	YES	NO
influenza	NO	NO
E Coli	NO	NO (unless multidrug resistant/associated with pulmonary or draining lesions)
Tuberculosis		NO
Viral	NO: unless indicated by a specific microorganism	
Mumps	YES	NO
Mycoplasma	YES	NO
Nocardiosis	NO	NO
Ophthalmia neonatorum	NO	NO
Orf	NO	NO
Parvovirus B19	YES	NO
Plague - bubonic	NO	NO
Plague - pneumonic	YES	NEGATIVE PRESSURE
Pneumonia - adults	NO (unless Adenovirus, meningococcal, multidrug resistant or Mycoplasma)	NO
Pneumonia - children	YES	NO (unless stated otherwise)
Poliomyelitis	YES	NO

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Psittacosis	YES if coughing, otherwise NO	NO
Q Fever	NO	NO
Rabies	YES	NO Transfer to Infectious Disease Unit RVH for treatment
Respiratory infections in children including pneumonia	YES	NO (unless stated otherwise)
Rheumatic Fever	NO	NO
Ringworm	NO	NO
Rubella (German measles)	YES	NO
SARS (Severe Acute Resp. Syndrome)	YES	NEGATIVE PRESSURE
Scabies	YES	NO
Scarlet fever	YES	NO
Schistosomiasis	NO	NO
Shingles (herpes zoster)	YES	NEGATIVE PRESSURE only if disseminated or if localised in an immunocompromised patient
Smallpox (even if only suspected)	YES	NEGATIVE PRESSURE Transfer to Infectious Disease Unit RVH
Streptococcus		
Group A	YES	NO
Group C	NO	
Group G	NO	NO
Group B (general)	NO	NO
Group B (Neonatal)	YES or in an incubator	NO NO

DISEASE / CONDITION	ISOLATION in Single Room Yes / No	Positive / Negative Pressure Ventilation Recommended
Unit only)		
Syphilis	NO	NO
Tapeworm	NO	NO
Tetanus	NO	NO
Thread worm	NO	NO
Tonsillitis	YES	NO
Toxocara	NO	NO
Toxoplasmosis	NO	NO
Trichomoniasis	NO	NO
Tuberculosis open Including pulmonary, or draining lesions	YES	NEGATIVE PRESSURE
Tuberculosis closed	NO	NO
Typhoid and Paratyphoid fever	YES	NO
Viral haemorrhagic fever	YES	NEGATIVE PRESSURE Transfer to Infectious Disease Unit RVH
Whooping Cough (pertussis)	YES	NO
Worm Infestations	NO	NO
Yellow Fever	NO	NO

It is the responsibility of ALL members of staff to comply with Isolation and Infection Control procedures. Remember that nosocomial infections are generally transmitted by health care workers. One persons failure to comply with simple procedures may negate the diligence of the rest of the team.

Occasionally a staff member may be found to be an asymptomatic carrier of a potentially pathogenic organism and may be considered to be a potential source of infection. In these cases it may be necessary to treat staff in order to eradicate carriage of the organism, using a systemic antibiotic (e.g. for Group A *Streptococcus pyogenes*) or by topical preparations (e.g. for Meticillin-resistant *Staphylococcus aureus*). An infectious staff carrier of a blood-borne virus such as HIV or HBV will not be allowed to perform invasive (“exposure prone”) procedures. In all such settings there should be consultation with the local occupational health service.

References

1. UK Department of Health. A Matron’s Charter: an Action Plan for Cleaner Hospitals. 2004. (Available at www.dh.gov.uk/assetRoot/04/09/15/07/04091507.pdf)
2. NHS Estates. Providing single rooms for patients: a study of the benefits to patients and staff within the NHS in England (November 2004).
3. (Available at <http://knowledge.nhsestates.gov.uk>)
4. NHS Estates. HBN 4 Supplement 1: Isolation facilities in acute settings (28 February 2005). (Available at <http://knowledge.nhsestates.gov.uk>)
5. Ayliffe GAJ, Fraise AP, Geddes AM, Mitchell K. Control of hospital infection. A Practical Handbook. 4th Edition 2000 Oxford: Butterworth and Heinemann