

Appendix 11a: Aide memoire for optimal patient placement and respiratory protective equipment (RPE) for infectious agents in hospital inpatients (based on evidence from WHO, CDC and UKHSA)

The clinical judgement and expertise of the IPC and Health Protection Teams should be sought for novel, unusual pathogens or where an increase in cases has been detected in any care setting. Advice can also be sought from the bacterial reference departments at UKHSA for rare / unusual pathogens, exceptional phenotypes or for advice regarding typing of outbreak strains.

The following table outlines the transmission-based precautions (TBPs) required for several infectious agents / diseases which will minimise cross transmission events from and between patients, and healthcare workers. The details included in the table below are drawn from published evidence from a number of validated sources, for example, WHO, CDC, and UKHSA. Pathogen-specific guidance for the infectious agents in this table can be found in the [A-Z of pathogens resource](#). **This table is intended to function as a quick reference guide, is not exhaustive, and is not intended to replace appropriate risk assessment and clinical judgement or formal assessments by public health agencies.** The table summarises:

- Optimal patient placement while the patient is considered infectious; and
- The recommended RPE (recognising other PPE is required) to minimise risk of cross infection to staff, patients and visitors.
- Decisions made by staff regarding use/non-use of RPE will depend on the completion of clinical risk assessment, considering presenting symptoms, available treatments, the risk of acquisition, the level of interaction, task to be performed, and / or the anticipated level of exposure to blood and / or other body fluids.

- In the hospital setting patients with suspected or confirmed respiratory symptoms should, whenever possible, be placed in a single room, ideally with en-suite facilities. If a single / isolation room is not available, cohort patients with confirmed respiratory infection with other patients confirmed to have the same infectious agent. Patients with suspected or confirmed respiratory infection should be provided with a surgical facemask (Type II or Type IIR) to be worn in multi-bedded bays and communal areas if this can be tolerated, and where the patient cannot be isolated in a single room.
- **Note:** *The distinction between droplet and aerosol transmission is not always clearly defined. A dynamic clinical risk assessment should be performed using the [hierarchy of controls](#) to inform the assessment and should include evaluation of the ventilation in the area, operational capacity, and prevalence of infection in the local area. Staff should be provided with training on the correct use of RPE. Current guidance is that an FFP3 respirator must be worn by staff when caring for patients with a suspected or confirmed infection spread by the airborne route, when performing AGPs on a patient with a suspected or confirmed infection spread by the droplet or airborne route, and when deemed necessary after risk assessment.

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
<i>Acinetobacter baumannii</i>	Pneumonia, bacteraemia, skin and soft tissue infections.	Contact	Single en-suite room in high risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Acute infectious hepatitis of unknown aetiology	Acute hepatitis	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
Adenovirus ²	Upper +/- lower respiratory tract infection	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
	Conjunctivitis, gastroenteritis	Contact	Single en-suite room	No requirement for RPE	No
<i>Bacillus anthracis</i>	Respiratory, gastrointestinal or cutaneous Anthrax	Contact	Single en-suite room	No requirement for RPE ³	Yes
<i>Bacillus cereus</i>	Gastroenteritis, sepsis, pneumonia, endocarditis, central nervous system (CNS) and ocular infections	Contact	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	If associated with food poisoning
<i>Bordetella pertussis</i>	Whooping Cough	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment ⁴	Yes
<i>Candida auris</i>	Ear, wound and bloodstream infection	Contact	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Carbapenemase producing Enterobacterales (CPE) (either swab positive or positive as per clinical risk assessment criteria)	Colonisation, device associated infections – urinary tract infection, catheter associated bacteraemia	Contact	Single en-suite room	No requirement for RPE	No
<i>Chlamydia pneumoniae</i>	Pneumonia	Droplet	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No

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Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
<i>Clostridioides difficile</i>	<i>Clostridioides difficile</i> infection (CDI)	Contact	Single en-suite room	No requirement for RPE	No
Coronavirus ² (Seasonal) including SARS- CoV-2	Respiratory symptoms including asymptomatic presentations COVID-19	Droplet/Airborne * please see note above	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs* please see note above	No Yes SARS-CoV-2
<i>Corynebacterium diphtheria</i> or <i>Corynebacterium ulcerans</i>	Diphtheria – Cutaneous, Pharyngeal (toxigenic strains)	Contact, Droplet (If Pharyngeal)	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (if pharyngeal)	Yes
Enterovirus D68	Mild to moderate upper respiratory tract infections. Can cause severe respiratory illness and rarely acute flaccid myelitis (AFM)	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Gastrointestinal infections eg <i>Salmonella</i> spp.	Gastroenteritis	Contact	Single en-suite room	Fluid resistant surgical facemask (FRSM) if vomiting is present.	(Some GI Infections are notifiable. Refer to guidance)
<i>Haemophilus influenzae</i> (all invasive*)	Epiglottitis, *meningitis, pneumonia, *bacteraemia	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment ⁴	Yes *Only

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
Hepatitis A virus	Hepatitis, Gastroenteritis	Contact	Single en-suite room	Fluid resistant surgical facemask (FRSM) if vomiting is present.	Yes
Herpes zoster (Shingles) (varicella-zoster) ⁵	Shingles (vesicle fluid)	Contact	Single en-suite room If lesions cannot be covered	No requirement for RPE	Notifiable organism but not notifiable disease
	Disseminated zoster	Airborne	Negative pressure isolation room/suite	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Notifiable organism but not notifiable disease
Influenza virus (Endemic strains)	Influenza	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
Measles virus ⁵	Measles (rubeola)	Droplet/Airborne	Negative pressure isolation room/suite	FFP3 or Hood for routine care and AGPs	Yes
Met(h)icillin resistant <i>Staphylococcus aureus</i> (MRSA)	Colonisation, or clinical infection (skin and wound infections, endocarditis, pneumonia, osteomyelitis, urinary tract infections and bacteraemia)	Contact	Single en-suite room	FFP3 or Hood for AGPs only if pneumonia	No
Mumps virus ⁵	Mumps (infectious parotitis)	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
<i>Mycobacterium tuberculosis</i> complex (including MDR and XDR)	Pulmonary or laryngeal disease (or extrapulmonary disease where pulmonary or laryngeal disease has not been excluded)	Airborne	Negative pressure isolation room/suite ⁶	FFP3 or Hood for routine care and AGPs	Yes
	Extrapulmonary Tuberculosis (where pulmonary or laryngeal disease has been excluded)	These patients do not require transmission based precautions, however, if undertaking a procedure(s) on a lesion while the patient is considered infectious ⁴ a risk assessment should be completed to determine appropriate patient placement and use of RPE.			Yes
<i>Mycoplasma pneumoniae</i>	Pneumonia	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
<i>Neisseria meningitidis</i>	Meningitis – meningococcal (Or presentation of clinical meningitis of unknown origin), septicaemia	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment ⁴	Yes
Norovirus	Winter vomiting disease	Contact	Single en-suite room	Fluid resistant surgical facemask (FRSM) if vomiting is present.	No (hospital outbreaks are reportable)

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Panton Valentine Leukocidin (PVL) – positive <i>Staphylococcus aureus</i>	Skin and soft tissues infection, necrotising pneumonia, necrotising fasciitis, osteomyelitis, septic arthritis and pyomyositis, purpura fulminans	Contact	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (only if pneumonia)	No
Parainfluenza virus ²	Upper +/- lower respiratory tract infection	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Parvovirus B19 – (Erythema infectiosum – Erythrovirus B19)	Slapped cheek syndrome	Droplet	Single en-suite room until the rash+/- arthralgia has developed	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (Not required if the rash+/- arthralgia has developed)	No
<i>Pneumocystis jirovecii</i> ⁷	Pneumonia	Droplet	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
<i>Pseudomonas aeruginosa</i> ⁷	Pneumonia, bacteraemia, wound or surgical site infections, catheter-associated urinary tract infections, conjunctivitis in neonates	Droplet	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Respiratory syncytial virus (RSV) ²	Upper +/- lower respiratory tract infection	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
Rotavirus	Gastroenteritis	Contact	Single en-suite room	No requirement for RPE	No
Rubella virus ⁵	German Measles	Droplet	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
<i>Serratia marcescens</i>	Pneumonia, bacteraemia, urinary tract infections, wound infections	Contact	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
<i>Staphylococcus aureus</i> (Enterotoxigenic)	Gastroenteritis, scalded skin syndrome	Contact	Single en-suite room (not required if lesions can be covered)	No requirement for RPE	No

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
<i>Stenotrophomonas maltophilia</i>	Bacteraemia, respiratory infections, urinary tract and surgical-site infections	Contact	Single en-suite room in high-risk settings eg ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
<i>Streptococcus pneumoniae</i>	Pneumonia	Droplet	Single en-suite room (until patient has been established on appropriate antimicrobial treatment ⁴)	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment ⁴	Yes
	Bacteraemia, meningitis, wound infection or infection in other normally sterile site	Contact	Single en-suite room (until patient has been established on appropriate antimicrobial treatment ⁴)	No requirement for RPE	Yes (presence in the wound is not notifiable)
<i>Streptococcus pyogenes</i> (Group A Strep)	Respiratory infection	Droplet	Single en-suite room (until patient has been established on appropriate antimicrobial treatment ⁴)	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient established on appropriate antimicrobial treatment ⁴	No
	Invasive Group A strep Bacteraemia, meningitis, wound infection/infection in other normally sterile site	Contact	Single en-suite room (until patient has been established on appropriate antimicrobial treatment ⁴)	No requirement for RPE	Yes
Varicella virus ⁵ <u>See Herpes Zoster</u>	Chickenpox	Airborne	Negative pressure isolation room/suite	FFP3 or Hood for routine care and AGPs	Yes

Suspected or confirmed Pathogen	Disease	Transmission based precautions (TBPs) required	Optimal placement while patient is considered infectious	Respiratory protection (RPE) for healthcare workers while patient is considered infectious	Notifiable under Public Health Act 1984 and Health Protection Regulations 2010 ¹
Shiga-toxin producing <i>Escherichia coli</i> (STEC) Verocytotoxigenic <i>Escherichia coli</i> (including <i>E.coli</i> O157) Haemolytic uraemic syndrome (HUS)	Gastroenteritis, haemolytic uremic syndrome, thrombotic thrombocytopenic purpura.	Contact	Single en-suite room	No requirement for RPE	Some conditions notifiable (refer to guidance)

Footnote 1

Registered medical practitioners (RMPs) have a statutory duty to notify the ‘proper officer’ at their local council or local health protection team (HPT) of suspected cases of certain infectious diseases.

Complete a [notification form](#) immediately on diagnosis of a suspected notifiable disease. Don’t wait for laboratory confirmation of a suspected infection or contamination before notification. Consult the [UKHSA Notifiable Diseases poster](#) (PDF, 1020KB, 1 page) for further information.

Send the form to the proper officer within 3 days, or notify them verbally within 24 hours if the case is urgent by phone, letter, encrypted email or secure fax machine.

If you need help, contact your local HPT using the [postcode lookup](#). For more detail on reporting responsibilities of RMPs, see page 14 of [Health Protection Legislation \(England\) Guidance 2010](#).

All proper officers must pass the entire notification to UKHSA within 3 days of a case being notified, or within 24 hours for urgent cases.

Footnote 2

When patients with undiagnosed respiratory illness present where coughing and sneezing are significant features, or in the context of known widespread respiratory virus activity in the community or a suspected or confirmed outbreak of a respiratory illness in a closed or semi-closed setting, the need for appropriate respiratory and facial protection to be worn should be considered based on a local risk assessment.

Footnote 3

Anthrax: during the bacteraemic phase spilt blood products should be removed immediately using sodium dichloroisocyanurate granules to prevent subsequent sporulation on contact with air / soil.

Footnote 4

Appropriate antimicrobial treatment will include the choice of treatment, dose, frequency and number of days of treatment. It will vary by organism and should be determined by the clinical team and informed by local and national prescribing guidance where available.

Footnote 5

In relation to childhood illnesses and use of RPE, no vaccine offers 100% protection and a small proportion of individuals acquire/become infected despite vaccination or known IgG immunity (previous infection). Vaccination is still the best protection against many infectious diseases. If staff are uncertain of their immunisation status, they should discuss this with their occupational health provider. It is recommended that vaccinated individuals wear RPE as detailed in this appendix to minimise any residual risk, and to promote consistency in practice across all staff groups.

Footnote 6

If a negative pressure isolation room/suite is not available for a patient with suspected or confirmed **MDR or XDR TB** they should be transferred to a hospital that has these facilities and a clinician experienced in managing complex drug-resistant cases as per the [NICE guideline \(NG33\) for Tuberculosis](#).

Footnote 7

This organism is an opportunistic pathogen in specific at-risk groups. Staff are not required to wear FRSM/RPE for direct patient care unless required by SICPs i.e. risk of splash or spray, or if determined by an individual (HCW) risk assessment.