# Infection Prevention and Control for Seasonal Respiratory Infections in Health and Care settings including SARS-CoV-2 for Autumn/Winter 2021/2022

## Engagement period with Stakeholders – 22/09/21 to 06/10/21

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## 2. About this guidance

The guidance is issued jointly by the Department of Health and Social Care (DHSC), Public Health Wales (PHW), Public Health Agency (PHA) Northern Ireland, Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland, Public Health England (PHE) and NHS England as official guidance.

This guidance is intended to prevent transmission of seasonal respiratory viral infections including COVID-19 in health and care settings while supporting the recovery of services. This guidance considered the recommendations of:

- COVID-19: Guidance for maintaining services within health and care settings Infection prevention and control recommendations. V1.2 June 2021.
- Health Protection Scotland. Interim infection control precautions to minimise transmission of respiratory tract infections (RTIs). V1.0 September 2015.
- Public Health England. Infection control precautions to minimise transmission of acute respiratory tract infections in healthcare settings. V2.0 2016.

Additionally, the guidance incorporates policy recommendations from:

- DHSC Pandemic Influenza. Guidance for infection prevention and control in healthcare settings. Final draft 2019. Unpublished due to COVID-19, produced by Health Protection Scotland with expert input from the UK 4 nations working group.
- Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland. National Infection Prevention and Control Manual. Accessed 30.06.2021.
- World Health Organization (WHO). Infection prevention and control during health care when coronavirus disease (COVID-19) is suspected or confirmed. Interim guidance. July 2021.

High consequence infection diseases (HCIDs) transmitted by the airborne route such as emerging pandemic influenza or other novel respiratory viruses are out of scope for this guidance.

Whilst this guidance seeks to ensure a consistent and resilient UK wide approach, some differences in operational details and organisational responsibilities may apply in Northern Ireland, England, Wales and Scotland.

Please note that this guidance is of a general nature and that an employer should consider the specific conditions of each individual place of work and comply with all applicable legislation, including the Health and Safety at Work etc. Act 1974.

The IPC principles in this document apply to all health and care settings, including the independent/private sector, mental health and learning disabilities, primary care

areas, care homes, care at home, maternity and paediatrics (this list is not exhaustive, please refer to specific country resources for setting specific guidance).

NB: This guidance does NOT apply to adult social care settings in England. Adult social care providers in England should refer to existing guidance already in place. DHSC/PHE will continuously review this guidance and update as needed.

## 3. Key messages

This guidance supersedes the previous UK IPC COVID-19 version 1.2 (June 2021) to allow for organisations to consider the ongoing delivery of service provision throughout the winter period 2021/22.

This guidance considers SARs-CoV-2 (including variants of concern) and other seasonal respiratory infections such as influenza and RSV, using local and national prevalence and incidence data during the winter months to guide service delivery locally.

Main changes:

- Removal of the 3 distinct COVID-19 care pathways (high, medium and low) to one respiratory pathway applying transmission based precautions.
- An algorithm to support patient placement (appendix 2) decisions within the respiratory pathway.
- Section on the criteria to be applied within the 'hierarchy of controls' to further support organisations/services with maximum workplace risk mitigation.
- Universal use of face masks (face coverings) to remain as an IPC measure within healthcare clinical settings across the winter period.
- Physical distancing should be AT LEAST 1 metre in clinical areas, increasing whenever feasible to 2m for the respiratory pathways and admission units.
- Triaging and testing to continue over the winter period to include SARs-CoV-2 and other respiratory pathogens depending on the setting/ data e.g. RSV.
- Review of the AGP list to identify procedures that can be removed from the list.

# 4. Introduction

## Scope and purpose

The pandemic remains a threat (see COVID-19 alert levels) and as such there continues to be a need to be cautious to manage the risks of new variants of SARS-CoV-2 and the forthcoming challenges of other respiratory infections that are likely to present over the winter 2021/22 alongside other winter pressures.

The COVID-19 vaccination programme across the UK continues apace and this has been successful in reducing the consequence of the disease, reflected in a reduction in hospitalised cases, and admissions to intensive care. , Implementation of this next (recovery) phase must be underpinned by patient (individual)/procedure risk assessment, appropriate testing/triaging regimens (as per organisations or country specific guidance) and available epidemiological data.

This guidance seeks to consider the ongoing infection risks as a consequence of COVID-19 alongside other seasonal respiratory infection risks and their management with Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs).

As public health (COVID-19 control) measures are eased across the UK, it is necessary for some pandemic measures to remain within health and care services.

It is recommended that for the foreseeable future that health and care services will still need to consider triaging/testing prior to placement for patients/individuals with respiratory infections including COVID-19 and apply the measures outlined in this guidance.

While this document seeks to ensure a consistent and resilient UK wide approach, some differences in operational details and organisational responsibilities may apply, where current legislation, guidance, for example clinical definitions, already exists. Country specific policy and guidance for:

• England can be found in the Compendium of guidance and resources: COVID-19

• Scotland can be found at HAI and COVID-19 compendiums and Scottish COVID-19 Infection Prevention and Control Addendum for Acute Settings

• Wales can be found at Health and social care professionals: coronavirus and HAI guidance set

• Northern Ireland can be found at Guidance for professionals and organisations

## 5. Governance and responsibilities

Organisations and employers including NHS Trusts, NHS Boards, Health and Social Care Trusts (Northern Ireland), Local Authorities, Independent Sector providers, through their Chief Executive Officer (CEO) or equivalent must ensure:

- **monitoring of IPC practices,** as recommended in this guidance, and that resources are in place to implement and measure adherence to good IPC practice. This must include all care areas and all staff (permanent, agency and external contractors).
- **training in IPC** measures are provided to all staff, including: the correct use of PPE (including a face fit test/check if wearing a filtering face piece (FFP3), respirator, and the correct technique for putting on and removing (donning/doffing) safely.
- **risk assessment(s)** is undertaken for any staff members in at risk or clinically extremely vulnerable groups, including pregnant and Black, Asian and Minority Ethnic (BAME) staff.
- **testing and triaging** are in place with a local policy for the response if transmission rates of COVID-19 or other respiratory infections increase.
- **patients/individuals at high risk/extremely high risk of severe** illness are protected from COVID-19 and other respiratory infections. This must include consideration of families and carers accompanying patients/individuals for treatments/procedures.
- **health and care settings** continue to apply COVID-19 secure workplace requirements as far as practical, that is, that any workplace risk(s) are mitigated maximally for everyone. This will entail local risk assessments based on the measures as prioritised in the hierarchy of controls in the context of managing infectious agents and should be communicated to staff.
- **respiratory season/winter plan** is in place for all NHS facilities to ensure appropriate segregation of cases and manage increasing numbers where they occur.
- multidisciplinary team working, with hospital leadership, engineering, and clinical staff to plan for **creation of adequate isolation rooms (refer to (HBN) 00-09)**; identifying potential areas that can be converted effectively with minimum modifications.
- reliable application of all IPC recommendations and assurance on adherence, that PPE is available and in supply, and that all staff training is up to date.

# 6. Standard Infection control precautions (SICPs)

This section describes specific actions that should be taken when applying standard infection control precautions (SICPs) for patients/individuals who are not considered to be infectious with a respiratory pathogen.

All health and social care providers should be familiar with standard infection control precautions (SICPs) and transmission based precautions (TBPs).

**Standard infection control precautions (SICPs)**

SICPs are the basic infection prevention and control measures necessary to reduce the risk of transmission of infectious agents from both recognised and unrecognised sources of infection. Sources of (potential) infection include blood and other body fluids secretions or excretions (excluding sweat), non-intact skin or mucous membranes and any equipment or items in the care environment that could have become contaminated. SICPs are to be used **by all** staff, **in all** care settings, **at all** times, **for all** patients.

## 6.1. Patient placement/ assessment for infection risk

### 6.1.1. Triaging and testing

Patients must be promptly assessed for infection risk (triaged) on arrival at the care area (and, if possible, prior to accepting a patient from another care area). Patients should be continuously reviewed throughout their stay. Visitors should be advised not to attend if they have respiratory symptoms and should be triaged on arrival if accompanying a patient. Visitors who are symptomatic should not be permitted to enter the care area. Exceptions should be made for specific circumstances (see section 8) following a risk assessment.

Signage should be displayed prior to and on entry to assessment units instructing patients with respiratory symptoms to inform reception staff immediately on their arrival. Triaging within all health and other care facilities must be undertaken to enable early recognition of potentially infectious (including asymptomatic) patients. Triage should be undertaken by clinical staff who are trained and competent in the application of the clinical case definition specifically for COVID-19 prior to arrival at a

care area, or as soon as possible on arrival, and allocated to the correct clinical area. This should include screening for other respiratory infections/multi-drug resistant organisms, including as per national screening requirements. See Appendix 2 for an example of triage questions.

Point of care (POC) /rapid testing for respiratory infections should be considered as part of triaging where available such as emergency departments. Asymptomatic testing (PCR or lateral flow device) for SARS-CoV-2 must be implemented in accordance with current national and local policy.

### 6.1.2. Patient placement

In all healthcare settings, patients with symptoms of respiratory infection should be segregated from other patients as promptly as possible depending on the suspected/known causative organism.

Bed spacing must be sufficient (defined within (HBN 04-01) Adult in-patient facilities) for the care activities to be carried out without cross-contamination of adjacent bed spaces. Bed spacing requirements may increase in care environments where additional equipment or greater staff numbers are needed e.g. critical care.

## 6.2. Hand hygiene

As a minimum, hand hygiene must be performed using the WHO Five Moments (four moments in care homes).

- before touching a patient
- before a clean/aseptic procedure
- after exposure to body fluids
- after touching a patient
- after touching the patient's surroundings

Hand hygiene must also be performed after removing PPE (moment 4/5) (see guidance on donning (putting on) and doffing (removing) PPE)

Before performing hand hygiene:

- expose forearms (bare below the elbow);
- remove all hand and wrist jewellery. The wearing of a single, plain metal finger ring e.g. a wedding band, is permitted but should be removed (or

moved up) during hand hygiene. A religious bangle can be worn but should be moved up the forearm during hand hygiene and secured during patient care activities;

- ensure fingernails are clean and short, and do not wear artificial nails or nail products;
- cover all cuts or abrasions with a waterproof dressing.

Use alcohol hand rub/gel (ABHR) to decontaminate hands which are visibly clean. Use soap and water if hands are visibly soiled.

## 6.3. Respiratory/cough etiquette

Patients, staff and visitors should be encouraged to minimise transmission of respiratory pathogens through good respiratory hygiene measures:

- encourage patients to keep hands away from the eyes, mouth and nose by use of posters/signage or directly communicated
- disposable, single-use tissues should be used to cover the nose and mouth when sneezing, coughing or wiping and blowing noses. Used tissues should be disposed of promptly in the nearest waste bin;
- tissues, waste bins (preferably lined and foot operated) and hand hygiene facilities should be available for patients, visitors and staff;
- hands should be cleaned (using soap and water if possible, otherwise using ABHR) after coughing, sneezing, using tissues or after any contact with respiratory secretions and contaminated objects. Keep contaminated hands away from the eyes nose and mouth;
- some patients (e.g. the elderly and children) may need assistance with containment of respiratory secretions; those who are immobile will need a container (e.g. a plastic bag) readily at hand for immediate disposal of tissues.

## 6.4. Safe management of the care environment

The care environment should be kept clean and clutter free. All non-essential items including toys, books and magazines should be removed from reception and waiting areas, consulting and treatment rooms, emergency departments, day rooms and lounges. When made available, these items should not be shared. All toys must be

cleanable and should be cleaned regularly (preferably at the same time as the environment).

It is unnecessary to use disinfectants for routine decontamination of non-clinical areas or clinical areas not used for the treatment of potentially infectious patients.

Manufacturers' guidance and recommended product "contact time" must be followed for all cleaning/disinfectant solutions.

Domestic/cleaning staff performing environmental decontamination must be trained in which PPE to use and the correct methods of wearing and removing PPE (in addition to disposable gloves and an apron, a surgical mask should be worn for cleaning in cohort areas and rooms used for isolation).

## 6.5. Waste

Waste contaminated with potential or known infectious matter (e.g. respiratory secretions) should be disposed of as hazardous infectious waste This waste must be segregated in line with the respective countries' national regulation.

**Safe waste disposal at care area level:**

Always dispose of waste:

- immediately and as close to the point of use as possible; and
- into the correct segregated colour coded receptacle (may vary by country and care sector)

**Waste bags** must be no more than 3/4 full or more than 4 kgs in weight; and use a ratchet tag/or tape (for healthcare waste bags only) using a 'swan neck' to close with the point of origin and date of closure clearly marked on the tape/tag.

**Store all waste** in a designated, safe, lockable area whilst awaiting uplift. Uplift schedules must be acceptable to the care area and there should be no build-up of waste receptacles.

## 6.6. Safe management of linen

Linen that has been used by a patient who is known or suspected to be infectious and or linen that is contaminated with blood and or other body fluids, for example respiratory secretions should be processed as infectious linen. Linen must be

handled, transported and processed in a manner that prevents exposure to the skin and mucous membranes of staff, contamination of their clothing and the environment:

- Disposable gloves and an apron should be worn when handling used/infectious linen;
- All linen should be handled inside the patient room/cohort area. A laundry receptacle should be available as close as possible to the point of use for immediate linen deposit;
- when handling linen do not:

  - rinse, shake or sort linen on removal from beds/trolleys,
  - place used/infectious linen on the floor or any other surfaces e.g. a locker/table top,
  - re-handle used/infectious linen once bagged
  - overfill laundry receptacles; or
  - place inappropriate items in the laundry receptacle e.g. used equipment/needles.

All linen bags/receptacles must be tagged e.g. ward/care area and date. Store all used/infectious linen in a designated, safe, lockable area whilst awaiting collection. Ensure uplift schedules are acceptable to the care area; there should be no build-up of linen receptacles.

## 6.7. Personal Protective Equipment

Before undertaking any procedure staff should assess any likely exposure and ensure PPE is worn that provides adequate protection against the risks associated with the procedure or task being undertaken.

All PPE should be:

- compliant with the relevant BS/EN standards (technical standards as adopted in the UK post-brexit);
- located close to the point of use;
- stored to prevent contamination in a clean/dry area until required for use (expiry dates must be adhered to);

- single-use only, unless specified by the manufacturer;
- changed immediately after each patient and/or following completion of a procedure or task; and
- disposed of after use into the correct waste stream i.e. healthcare waste.

NB. Any reusable PPE must have a decontamination process in place and responsibility assigned.

See guidance on donning (putting on) and doffing (removing) PPE

### 6.7.1. Disposable gloves

Disposable gloves must:

- be worn when exposure to blood and/or other body fluids, non-intact skin or mucous membranes is anticipated or likely
- be changed immediately after each patient and/or after completing a procedure/task even on the same patient
- be put on immediately before performing an invasive procedure and removed on completion
- not be decontaminated with alcohol based hand rub (ABHR) or soap between use.

Inappropriate use of gloves, that is not changing them as recommended above, risks the gloves contributing to the transfer of organisms and cross infection.

Gloves **are not** required when undertaking administrative tasks for example using the telephone, using a computer or tablet, writing in the patient chart; giving oral medications; vaccinations, distributing or collecting patient dietary tray and unnecessary use of gloves generates excessive waste.

### 6.7.2. Disposable aprons/gowns

Disposable plastic aprons must be worn to protect staff uniform or clothes from contamination when providing direct patient care and during environmental and equipment decontamination.

Aprons must be:

- worn to protect uniform or clothes when contamination is anticipated or likely

- changed between patients and/or after completing a procedure or task

Fluid-resistant gowns must be worn when a disposable plastic apron provides inadequate cover of staff uniform or clothes for the procedure/task being performed and when there is a risk of extensive splashing of blood and/or other body fluids e.g. during AGPs.
Disposable aprons and gowns must be changed between patients and immediately after completion of a procedure/task.

### 6.7.3. Eye and face protection

Eye or face protection (including full-face visors) must:

- be worn if blood and/or body fluid contamination to the eyes or face is anticipated or likely for example, by members of the surgical theatre team and always during aerosol generating procedures.
- not be impeded by accessories such as piercings or false eyelashes
- not be touched when being worn
- if reusable must have a decontamination schedule in place

NB. Regular corrective spectacles are not considered as eye protection

### 6.7.4. Universal masking by staff, patients and visitors

Universal masking (with face coverings or surgical masks (Type II or IIR)) to prevent the transmission of SARS-CoV-2 and other respiratory pathogens in care settings should be applied in healthcare settings across the winter months.

Facemasks/ coverings may not be required in non-clinical areas (see country-specific policy on use of face coverings in public spaces) but should be worn by all outpatients (if tolerated) and visitors when entering a hospital, GP/dental surgery or other care settings.

Surgical facemasks (Type II or Type IIR) should continue to be worn during the winter months:

- by all inpatients in multi bedded bays or communal areas if this can be tolerated and does not compromise their clinical care, such as when receiving oxygen therapy; this is not required in single rooms

- by staff in clinical areas only within health or other care settings, this may be country specific.

The correct use of surgical masks is further described in sections 6.7.5

### 6.7.5. Surgical masks (type II and type IIR)

Surgical masks worn as part of universal masking may be either type II or type IIR. When worn as PPE to protect against splash or spray a fluid-resistant surgical mask (FRSM) (type IIR) must be worn.

Surgical masks must:

- be well fitted covering both nose and mouth,
- not be allowed to dangle around the neck after or between each use,
- not be touched once put on,
- be changed when they become moist or damaged,
- be worn once and then discarded as healthcare (clinical) waste (hand hygiene must always be performed after disposal).

# 7. Transmission Based Precautions (TBPs) **(Respiratory Pathway)**

This section describes specific actions that should be taken when applying transmission based precautions (TBPs) in the care of a person known or suspected to have a respiratory infection. Refer to the **'respiratory pathway'** (see appendix 3).

TBPs are applied when SICPs alone are insufficient to prevent cross transmission of an infectious agent. TBPs are additional infection control precautions required when caring for a patient with a known or suspected infectious agent. TBPs are categorised by the route of transmission of the infectious agent.

- **Contact precautions:** Used to prevent and control infections that spread via direct contact or indirectly from the immediate care environment (including care equipment).
- **Droplet precautions:** Used to prevent and control infections spread over short distances (at least 3 feet (1 metre)) via droplets from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level.
- **Airborne precautions:** Used to prevent and control infection spread without necessarily having close contact via aerosols from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level.

## 7.1. Patient placement

Patients must be promptly assessed for infection risk (see section 6.1.1 and appendix 2) on arrival at the care area (and, if possible, prior to accepting a patient from another care area). Patients should be continuously reviewed throughout their stay. In all healthcare settings, patients with symptoms of respiratory infection should be segregated from other (non-infectious) patients as promptly as possible depending on the causative organism.

Bed spacing must be sufficient (defined within (HBN 04-01) Adult in-patient facilities)

for the care activities to be carried out without cross-contamination of adjacent bed spaces. Bed spacing requirements may increase in care environments where additional equipment or greater staff numbers are needed e.g. critical care.

### 7.1.1. Primary care and outpatient settings

In primary care and outpatients settings, all patients should follow universal masking for source control policies as per section 6.7.4. Patients with symptoms of respiratory infection should be triaged to a segregated waiting and assessment area immediately. This may be achieved by:

- Creating a separate waiting and reception areas or use of physical barriers if possible. Patients should be instructed to stay in these areas and not visit public areas e.g. cafes. Signage should be used as appropriate.

- Alternatively, patients with respiratory symptoms should be seen at a different time from other patients, with disinfection of shared areas taking place between clinics.

For patients who develop new respiratory symptoms and have chronic conditions that require attendance at outpatient settings e.g. hospital day care, alternative options include:

- deferring the procedure and/or re-scheduling the next appointment providing this is not detrimental to their condition/treatment plan;
- Requesting patients arrive on time (not early) and wait in their car or outdoors if possible until telephoned to advise to enter the building for their appointment;
- Transferring patient care to a designated hospital with isolation facilities.

### 7.1.2. Isolation

Isolation within a care home for a known/suspected infection can be achieved in the persons' bedroom in most cases.

In a hospital setting:

- Place patient in a single room ideally with en-suite;

- Special environment controls such as negative pressure rooms are not necessary to prevent droplet transmission but where available should be used for AGPs and to prevent transmission of airborne pathogens;
- Limit transport and movement of patients outside of their room to medically necessary activities. If patient movement or transport is necessary, the patient should wear a surgical face mask (if tolerated) to minimise the dispersal of respiratory secretions and reduce environmental contamination.

Prioritisation for isolation in a single side room should consider the availability of single rooms for patients with other infectious pathogens e.g. gastrointestinal infections or multi-drug resistant organisms and extremely clinically vulnerable patients.

### 7.1.3. Cohorting

If a single/isolation room is not available, cohort confirmed respiratory infected patients with other patients confirmed to have the same infectious agent.

- If single/isolation rooms are in short supply, and cohorting is not yet possible (awaiting laboratory confirmation), prioritise patients who have excessive cough and sputum production for single room placement.
- Ensure patients with respiratory symptoms are physically separated by greater than 1 metre but ideally 2 metres. Draw the privacy curtains between the beds to minimise opportunities for close contact providing this does not compromise patient care.
- Display signage to control entry into cohort areas.

As an additional infection control measure staff cohorting in isolation/cohort rooms/areas may also be considered. This can only be implemented if there are sufficient levels of staff available so as not to have a negative impact on non-affected patients' care.

## 7.2. Safe management of care equipment

Patient care equipment should be single-use items if possible. Reusable (communal) non-invasive equipment should be allocated to the individual patient or cohort of patients if possible.

Reusable (communal) non-invasive equipment must be decontaminated:

- between each patient and after patient use;
- after blood and body fluid contamination;
- at regular intervals as part of equipment cleaning.

Decontamination of equipment must be performed using either:

- a combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.));
- a general-purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl.

Alternative cleaning agents/disinfectant products may be used with agreement of the local IPC Team/health protection team (HPT). Cleaning of care equipment as per manufacturers guidance/instruction and recommended product 'contact time' must be followed for all cleaning/disinfectant solutions/products. An increased frequency of decontamination should be considered for all reusable non-invasive care equipment when used in isolation/cohort areas.

## 7.3. Safe management of the care environment

Patient isolations rooms, cohort areas and clinical rooms must be decontaminated at least daily. Clinical rooms should also be decontaminated after each patient or treatment session for patients with suspected/known respiratory infection. In addition, patient rooms must be terminally cleaned when vacated:

- Following resolution of symptoms, discharge or transfer (this includes removal and laundering of all curtains and bed screens);
- Following an AGP. Clearance of infectious particles after an AGP is dependent on the ventilation and air change within the room. Refer to (HTM) 03-01 Specialised ventilation for healthcare buildings. Advice should be sought from IPCT and /or the estates department/team.

An increased frequency of decontamination/cleaning should be incorporated into the environmental decontamination schedules for areas where there may be higher environmental contamination rates e.g.

- toilets/commodes particularly if patients have diarrhoea; and
- "frequently touched" surfaces such as medical equipment, door/toilet

handles and locker tops, over bed tables and bed rails should be cleaned at least twice daily and when known to be contaminated with secretions, excretions or body fluids.

Decontamination of the care environment must be performed using either:

- a combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine av.cl.; or
- a general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl.

Alternative cleaning agents/disinfectant products may be used with agreement of the local IPC Team/HPT. Cleaning of care equipment as per manufacturers guidance/instruction and recommended product 'contact time' must be followed for all cleaning/disinfectant solutions/products. An increased frequency of decontamination should be considered for all reusable non-invasive care equipment when used in isolation/cohort areas

## 7.4. Personal Protective Equipment

### 7.4.1. Surgical face masks

Surgical masks (type II or type IIR) should always be provided for patients with suspected/confirmed respiratory infection. If tolerated a surgical mask should be worn throughout the health or care setting from the point of assessment or triage unless in a single or isolation room.

A fluid-resistant surgical mask (type IIR) must be worn by staff when caring for patients with a confirmed or suspected infection spread by the droplet route refer to Appendix 1.

### 7.4.2. Respiratory protective equipment (RPE)/FFP3 (filtering face piece or hood)

Respirators can be single use or single session use (disposable or reusable). All tight fitting RPE i.e. FFP3 respirators must:

- be fluid-resistant;
- be fit tested on all healthcare staff who may be required to wear a respirator to ensure an adequate seal/fit according to the manufacturers' guidance;*
- be fit checked (according to the manufacturers' guidance) every time a respirator is donned to ensure an adequate seal has been achieved;

- be compatible with other facial protection used i.e. protective eyewear so that this does not interfere with the seal of the respiratory protection; Regular corrective spectacles are not considered adequate eye protection;
- be disposed of and replaced if breathing becomes difficult, the respirator is damaged or distorted, the respirator becomes obviously contaminated by respiratory secretions or other body fluids, or if a proper face fit cannot be maintained;
- not be allowed to dangle around the neck of the wearer or hang from one ear after or between each use;
- not be touched once put on;
- be removed outside the patient's/individual's room or cohort area.

In the absence of an anteroom/lobby remove RPE and eye protection in a safe area (e.g. outside the isolation/cohort room/area). All other PPE should be removed in the patient care area. Perform hand hygiene after removing and disposing of RPE.

*All staff who are required to wear an FFP3 respirator must be fit tested for the relevant model to ensure an adequate seal or fit (according to the manufacturer's guidance). Where fit testing fails, suitable alternative equipment must be provided. Reusable respirators can be utilised by individuals if they comply with HSE recommendations – reusable respirators should be decontaminated according to the manufacturer's instructions.

Further information regarding fitting and fit checking of respirators can be found on the **Health and Safety Executive website.**

Respirators with exhalation valves are not fluid-resistant unless they are also 'shrouded'. Valved non-shrouded respirators should be worn with a full-face shield if blood or body fluid splashing is anticipated. Respirators and powered hoods with exhalation valves are ineffective for source control. These should not be worn by a healthcare worker/operator when sterility directly over the surgical field is required for example in theatres/surgical settings or when undertaking a sterile procedure, as the exhaled breath is unfiltered.

### 7.4.3. PPE Ensembles

While providing care to patients with respiratory symptoms (suspected or confirmed respiratory infection) PPE for droplet precautions as described in table 1 must be applied. If the patient has a confirmed infection with a known pathogen that spreads by the airborne route PPE for airborne precautions as described in table 1 must be applied. Appendix 1 provides pathogen-specific information on required TBPs, including transmission routes, which may be applied following a confirmed diagnosis.

Table 1: Personal protective equipment required while providing direct care for patients with suspected or confirmed respiratory infection

| PPE required by type of transmission/ exposure | Disposable gloves | Disposable apron/gown | Face masks | Eye/face protection (visor) |
|---|---|---|---|---|
| **Droplet/Contact PPE** | Single use | Single use apron and gown (if risk of spraying/ splashing) | FRSM Type IIR for direct patient care[1] | Single use or reusable |
| **Airborne PPE (When undertaking or if AGPs are likely)* If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control**** | Single use | Single use gown | FFP3[2] or respirator /Hood for AGPs | Single use or reusable |

1. FRSM can be worn sessionally (includes eye/face protection) if providing care for cohorted patients/individuals

2. FFP3 can be worn sessionally (includes eye/face protection) in high risk areas where AGPs are undertaken for cohorted patients/individual

*Consideration may need to be given to the application of airborne precautions where the number of cases of COVID-19 requiring AGPs increases and patients/individuals cannot be managed in single or isolation rooms.

**Or if an unacceptable risk of transmission remains following rigorous application of the hierarchy of control, taking these controls into account, it may be necessary to consider the extended use of RPE for patient care in this situation.

Refer to guidance on donning (putting on) and doffing (removing) PPE.

N.B. When entering a patient's room/cohort area using droplet precautions gloves and aprons/gowns are not required. This is required when AT LEAST 1 metre in clinical areas, increasing whenever feasible and for the respiratory pathways / admission units consideration should be given to retaining the 2 metres.

#### 7.4.4. Sessional use of PPE

**In cohort areas only,** sessional use of eye, face and respiratory protection (face shields/visors, fluid-resistant surgical masks (FRSMs) and FFP3 respirators) only may be considered.

Sessional use of gloves, aprons and gowns is **not permitted**.

In all other areas current policy for universal use of face coverings or surgical masks for all patients, staff and visitors must be followed.

### 7.5. Aerosol Generating Procedures

An AGP is a medical procedure that can result in the release of airborne particles (aerosols) from the respiratory tract when treating someone who is suspected or known to be suffering from an infectious agent transmitted wholly or partly by the airborne or droplet route. AGPs should only be carried out when essential and only staff who are needed to undertake the procedure should be present, wearing airborne PPE/RPE precautions.

The list of medical procedures that are considered to be aerosol generating or associated with an increased risk of respiratory transmission is:

CURRENTLY UNDER REVIEW – TO BE ADDED BEFORE PUBLICATION

NB. Airborne precautions are NOT required for AGPs on patients/individuals with no known or suspected infectious agent transmitted via the droplet or airborne route.

### 7.6. Duration of precautions

Appendix 1 defines the duration of precautions for specific pathogens, where available. In general, patients should remain in isolation/cohort and TBPs continued until the resolution of fever and respiratory symptoms or completion of treatment. In some circumstances, testing for pathogen persistence may be helpful to ascertain whether isolation needs to be continued.

Children and immunosuppressed patients may remain infectious for a longer period of time and the duration of TBPs may require modification based on available pathogen-specific guidance and patient information.

Transmission based precautions should only be discontinued in consultation with clinicians and should take into consideration the individual's test results and clinical symptoms.

### 7.7. Care of the deceased

The principles of SICPs and TBPs continue to apply whilst deceased individuals remain in the care environment. This is due to the ongoing risk of infectious transmission via contact although the risk is usually lower than for living patients. Organism specific requirements for use of body bags, viewing, hygienic preparations, post-mortem examinations and embalming are described by the Health and Safety Executive. Also refer to COVID-19: Guidance for care of the deceased.

## 8. Visitors

Visiting may be suspended during outbreaks if considered appropriate and may be restricted as a result of increased community transmission of COVID-19 and other respiratory pathogens. Patient wellbeing should be considered, and visiting is encouraged for vulnerable or paediatric cases. Visitors should be made aware of any infection risks, offered PPE as recommended for staff and instructed on effective hand hygiene.

Visitors should not be present during AGPs unless they are essential e.g. carer/parent/guardian.

As per section 7.1 visitors with respiratory symptoms should not be permitted to enter the care area; however, if the visit is considered essential for compassionate (end of life) or other care reasons a risk assessment should be made and mitigations put in place to support visiting where possible.

Refer to country specific compendiums/visitors guidance.

## 9. Occupational health and vaccination

Prompt recognition of cases of respiratory infection among healthcare staff is essential to limit transmission. All HCWs should be vigilant for any respiratory symptoms during the incubation period following last exposure to a confirmed case and should not come to work if they have a fever or cough. They should seek advice from their ICT/occupational health department/GP or employer as per the local policy. During this period, symptomatic HCWs should avoid contact with people both in the hospital and in the general community. Bank, agency and locum staff should follow the same deployment advice as permanent staff.

Staff who are fully vaccinated against COVID-19 (14 day post second dose) and are a close contact of a case of COVID-19 may be allowed to return to work without the need to self-isolate. There are country-specific variations on the requirements for PCR and LFD testing etc. and these policies are under continual review and subject to change.

**Refer to country specific policy for:**

**England -** Staff isolation: approach following updated government guidance

**and** https://www.gov.uk/government/publications/covid-19-management-of-exposed-healthcare-workers-and-patients-in-hospital-settings/covid-19-management-of-exposed-healthcare-workers-and-patients-in-hospital-settings

**Scotland -** Coronavirus (COVID-19) – exemption of fully vaccinated social care staff from isolation: information for providers

**Wales -** COVID-19 contacts: guidance for health and social care staff

**Northern Ireland -** for management of self-isolation of close contacts of COVID-19 cases who are fully vaccinated - additional safeguards for health and social care staff

As part of their employer's duty of care, providers have a role to play in ensuring that staff understand and are adequately trained in safe systems of working, including donning and doffing of PPE. A fit testing programme should be in place for those who may need to wear respiratory protection. In the event of a breach in infection control procedures, staff should be reviewed by occupational health. Occupational health departments should:

- lead on the implementation of systems to monitor for illness and absence;

- facilitate access of staff to antiviral treatment where necessary and implement a vaccination programme for the healthcare workforce;
- lead on the implementation of systems to monitor staff illness, absence and vaccination against seasonal influenza and COVID-19;
- Encourage staff vaccine uptake.

Where possible, consider the vaccination status of staff when making staffing decisions for cohort areas. Regardless of whether staff have had and recovered from or have received vaccination for a specific respiratory pathogen they continue to follow the infection control precautions, including PPE, as outlined in this document.

A risk assessment is required for health and social care staff at high risk of complications from respiratory infections such as influenza and COVID-19 or clinically extremely vulnerable groups, including pregnant and Black, Asian and Minority Ethnic (BAME) staff. Employers should:

- discuss with employees who are in the at risk groups , including those who are pregnant and of Black, Asian and Minority Ethnic (BAME) origin
- ensure that advice is available to all health and social care staff, including specific advice to those at risk from complications Bank, agency and locum staff who fall into these categories should follow the same deployment advice as permanent staff. A risk assessment is required for health and social care staff at high risk of complications, including pregnant staff.

Guidance on carrying out risk assessments are country specific (links if available).

## 10. Outbreaks

Ensure a rapid and continued response through ongoing surveillance for hospital/organisation onset cases (staff and patients/individuals) of respiratory infection. Positive cases identified after admission who fit the criteria for a healthcare associated infection should trigger a case investigation. If 2 or more cases are linked

in time and place, an outbreak investigation should be conducted. Refer to country specific definitions.

# 11. Hierarchy of Controls

Limiting transmission of infections in health and other care setting requires a range of infection prevention and control measures. Included is the 'hierarchy of controls' which if applied in order are used to identify the appropriate controls. Safe systems of work outlined in the hierarchy of controls including elimination, substitution, engineering, administrative controls and PPE/RPE are an integral part of IPC measures. Organisations/employers have a responsibility to undertake risk assessments in the context of managing infectious agents. Key areas and measures for assessment are outlined below.

## 11.1. Elimination

The most effective measures in the hierarchy of controls are those that eliminate the risk. These include:

- Triaging and testing prior to any patient attending a healthcare environment, the triaging/testing should include assessment of respiratory symptoms, vaccination status and results of any recent tests (including for SARS -CoV-2),
- Where treatment is not urgent consider delaying this until resolution of symptoms providing this does not impact negatively on patient outcomes,
- Patients who are known or suspected to be positive with a respiratory pathogen including SARS-CoV-2, and whose treatment cannot be deferred should be isolated and provided with care from services who are able to operate in a way which minimises the risk of spread of the virus to other patients and staff,
- Emergency patients must be tested using point of care testing (relevant to the settings e.g. SARS-CoV-2, RSV and influenza) or rapid turnaround laboratory testing prior to admission to an acute hospital facility
- Elective patient must be triaged/tested and pre-admission isolation implemented according to NICE/country specific guidance.
- All staff should adhere to testing protocols for healthcare workers that are in place
- Staff should be fully vaccinated against respiratory infections (including Influenza and SARS CoV-2) as advised by occupational health/public health.
- Staff should not attend work if symptomatic/infectious and follow the testing and isolation guidance for their country for SARS-CoV-2 specifically (see section 9)

## 11.2. Substitution

When a source of infection cannot be eliminated substitutions should be implemented to reduce or control the risk. Sometimes this is not possible for healthcare to achieve as treatment needs to be carried out emphasis needs to be on the other controls.

However, some services may still consider the use of:

- Implementing virtual consultations (telephone or video) and offering these where appropriate and providing this is not detrimental to patient care for those individuals with a suspected or confirmed respiratory infection.

## 11.3. Engineering Controls

Engineering controls are used to reduce or control the risk of exposure at source.

They include design measures that help control or mitigate risks, such as barriers/screens/ventilation. Priority should be given to measures that provide collective protection rather than those that just protect individuals or a small group of people.

- Ensuring adequate ventilation systems i.e. mechanical/or natural, meet national recommendations for minimum air changes. Engineering advice may be required.
- Identifying areas (clinical and non-clinical) which are poorly ventilated or where existing ventilation systems are inadequate and do not use for respiratory patients until specialist ventilation advice to introduce measures to increase air changes or otherwise minimise the risk e.g. portable HEPA filters.
- Considering installation of partitions at appropriate places (e.g. reception desks) to separate staff from presenting patients (consideration needs to be given to impact on air flow before installation and any cleaning requirements)
- Assess room provision is sufficient should there be an increase in patients requiring isolation for respiratory infection. Work in a multidisciplinary team with hospital leadership, engineering, and clinical staff to plan for creation of adequate isolation rooms; identify potential areas that can be converted effectively with minimum modifications.

- Assess the function of the area and ensure that overcrowding is not an issue particularly if patients/individuals with known or suspected respiratory infections are being cared for, patients with respiratory infections should not be cared for in poorly ventilated/overcrowded care areas

Refer to (HTM 03-01) Specialised ventilation for healthcare buildings and (HBN 00-09) Infection control in the built environment for further information.

## 11.4. Administrative controls

Administrative controls are implemented at an organisational level (e.g. the design and use of appropriate processes, systems and engineering controls, and provision and use of suitable work equipment and materials) to help prevent the introduction of infection and to control and limit the transmission of infection in healthcare. They include:

- Prompt triaging and testing within all health and other care facilities must be undertaken to enable early recognition of SARS-CoV-2 and other infectious agents (e.g. influenza, RSV).
- Maintaining separation in space and/or time between patients with and without suspected respiratory infection by:
    - appointment or clinic scheduling to reduce waiting times in reception areas and avoid cross-over of infectious and non-infectious patients;
    - Appropriate patient placement for infectious patients in isolation or cohorting.
- Assessments of the adequacy of bed spacing (see HBN 00-09) should be performed regularly (including as part of BAU) taking into account potential increases in staff to patient ratios and equipment needs dependent on clinical care requirements.
- Identifying patient groups or clinical areas where physical distancing rules may be reduced to >1 metre.
- Provision of appropriate education for staff, patients and visitors in infection control.
- Providing safe spaces for staff breaks areas/changing facilities.
- Regular monitoring and assessment of environmental cleaning including considering the need for enhanced cleaning (increased frequency and/or use

of disinfectants).

- Encouraging good hand hygiene in staff (using WHO 5 moments), patients and visitors through provision of additional hand hygiene stations (alcohol based hand rub) and signage.

## 11.5. Personal Protective Equipment

Employers are under a legal obligation – under control of substances hazardous to health (COSHH) – to adequately control the risk of exposure to hazardous substances where exposure can't be prevented. Personal protective equipment (PPE) is considered to be the least effective of the hierarchy of controls. PPE considerations include:

- Ensuring adequate supply and availability of PPE including respiratory protective equipment (RPE), to protect staff, patients and visitors.
- Ensuring all staff required to wear tight-fitting RPE have been fit tested (this is a legal requirement for employers)

Further information regarding fitting and fit checking of respirators can be found on the **Health and Safety Executive website.**

See sections 6.7 and 7.4 for further guidance on the use of PPE

## Appendix 1: Aide memoire – patient placement and FRSM/RPE for respiratory infections/ infectious agents

The clinical judgement and expertise of the Infection Prevention and Control Team or the Health Protection Team should be sought for novel, unusual or an increase in cases of known or suspected infectious agents in any care setting. This table is for infection prevention and control measures i.e. to minimise risk of cross-transmission of infection to self and others when providing direct patient care.

The following table outlines the TBPs required including:

- Recommended patient placement whilst the patient is considered infectious; and
- The recommended FRSM/RPE to minimise risk of cross infection to staff, patients, and visitors

The TBPs recommended are based on the predominant mode of transmission for that infectious agent. Eye protection must be worn if there is a risk of spraying or splashing of blood/body fluids from patient contact or procedure, and always used with respiratory protective equipment during aerosol generating procedures (AGPs) on infectious patients.

Not all of the infectious agents outlined are prevalent during the winter season and may present at any time. Infectious agents highlighted in blue are those which are most likely to present in health and care settings during Autumn/Winter. This list does not include infectious agents which relate to specialist patient groups e.g. cystic fibrosis or haemato-oncology patients or High Consequence Infectious Disease (HCIDs).

This is not an exhaustive list.

## Patient placement and FRSM/RPE for respiratory infections/ infectious agents

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| Adenoviruses | Droplet (upper +/- lower respiratory tract infection) | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM)>1 metre for direct patient care, RPE for AGPs. | Unclear and likely varies by species; at least while symptomatic and individuals may shed virus for days to weeks after resolution of symptoms. | See footnote 3 |
| *Bordetella pertussis/parapertussis* (whooping cough) | Droplet | Single en-suite room | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre, RPE for AGPs until patient has been established on appropriate antimicrobial treatment[4] | From onset of symptoms until 48 hours of appropriate antimicrobial therapy or for 21 days from onset of symptoms if they have not received appropriate antimicrobial therapy. | From onset of symptoms until 48 hours of appropriate antimicrobial therapy or for 21 days from onset of symptoms if they have not received appropriate antimicrobial therapy.<br><br>PHE guidance |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| Coronavirus (SARS-CoV-2/COVID-19) | Droplet | Single en-suite room or /cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | From 2 days prior to symptom onset until 10 days after symptom onset. | Whilst symptomatic and/or 14 days after first positive PCR test. |
| Endemic coronavirus (excluding SARs-CoV-2) | Droplet | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | Unclear and likely varies by species; at least while symptomatic and individuals (particularly children) may shed virus following resolution of symptoms. | See footnote 3 |
| *Chlamydia pneumoniae* | Droplet | Single en-suite room in high risk settings (e.g. ICU/PICU/NICU, oncology/haematology). Most cases are treated as outpatients | Fluid-resistant surgical facemask (FRMS) for direct patient care, FFP3 for AGPs | During incubation period (~3 to 4 weeks following exposure) and while symptomatic. | See footnote 3 |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| *Corynebacterium diphtheria/ulcerans* (Diphtheria) | Droplet (pharyngeal diphtheria only, otherwise contact) | Single en-suite room | Fluid-resistant surgical facemask (FRMS)>1 metre for direct patient care RPE for AGPs | During the incubation period (typically 2-5 days but may be up to 10 days) until around 48hrs after commencing appropriate antimicrobial therapy.<br><br>Untreated individuals are infectious until around 2 weeks after symptom onset but potentially up to 6 weeks. In rare cases, chronic carriers may shed organisms for 6 months or more. | Until two cultures from the nasopharyngeal and throat taken at least 24 hours apart and more than 24 hours after completing antimicrobial therapy and negative for toxigenic *C. diphtheriae, C. ulcerans.*<br><br>PHE guidance |
| Enteroviruses | Droplet | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRMS) for direct patient care >1 metre, RPE for AGPs | While symptomatic. | See footnote 3<br><br>PHE guidance |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| *Haemophilus influenzae* type A, B and *parainfluenzae* | Droplet | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre RPE for AGPs[4] | For as long as organisms are present in the nasopharynx | Until established on appropriate antimicrobial therapy.<br><br>See footnote 3<br><br>PHE guidance |
| Herpes Zoster (shingles) (if in respiratory tract)[5] | Airborne (only if in the respiratory tract) | Isolation room/suite | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | From two days before onset of rash until the rash has crusted over. | Until lesions heal/dry (around 18 days) |
| Influenza virus (A or B) (seasonal) | Droplet | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | From 1 day before symptoms develop until 5 to 7 days after onset of symptoms. | Whilst symptomatic and should be continued for 24 hours after resolution of symptoms/fever<br><br>PHE guidance |
| Measles virus[5] | Airborne | Isolation room/suite | RPE for patient care and for AGPs | Individuals are usually infectious 5 | Until at least 4 days after onset of rash |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| | | | | days before to 4 days after rash onset. | PHE guidance |
| Metapneumovirus (mainly affects children/elderly) | Droplet (upper +/- lower respiratory tract infection) | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care>1 metre and RPE for AGPs | From onset of symptoms, however shedding can continue for ~14 days post symptom-onset. | See footnote 3<br><br>PHE guidance |
| Mumps virus[5] | Droplet | Single en-suite room | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre RPE for AGPs | Typically say 2 days before until 5 days after onset of symptoms., | Until at least 5 days after the beginning of illness.<br><br>PHE guidance |
| *Mycobacterium tuberculosis* (Pulmonary or laryngeal disease Tuberculosis) | Airborne | Isolation room/suite until patient has been established on appropriate antimicrobial treatment[4] and always if the patient has MDR or XDR TB | RPE for patient care and AGPs | While symptomatic and typically for 2 to 4 weeks after appropriate antimicrobial therapy commences, or while viable bacilli are present in sputum. | Until 2 negative sputum results or until patient has been established on appropriate antimicrobial therapy[4] and always if the patient has MDR or XDR TB. |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| | | | | | PHE guidance |
| *Mycoplasma pneumonia* | Droplet | Single en-suite room | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | From onset of symptoms up to 10 days if untreated. | Until patient has been established on appropriate antimicrobial therapy.<br><br>See footnote 3<br><br>PHE guidance |
| *Neisseria meningitides* | Droplet | Single en-suite room | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs[4] | Whilst symptomatic up to 24 hours after initiation of appropriate antimicrobial therapy | Up to 24 hours after initiation of appropriate antimicrobial therapy<br><br>PHE guidance |
| Parainfluenza virus | Droplet | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care 1 | From 12 to 24 hours before to 5 days after onset of symptoms | Evidence unclear around 5 days after symptom onset |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| | | | metre and RPE for AGPs | | See footnote 3<br><br>PHE guidance |
| Parvovirus B19/slapped cheek/Fifths disease | Droplet | Single en-suite room until the rash+/- arthralgia has developed | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs (Not required if the rash+/- arthralgia has developed) | From 7 to 10 days before the rash develops, until one day after the rash appears.<br><br>Asymptomatic transmission is also known to occur. | Until one day after rash appears.<br><br>PHE guidance |
| Respiratory syncytial virus (mainly affects children) | Droplet (upper +/- lower respiratory tract infection) | Single en-suite room/cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | From onset of symptoms typically until symptom resolution (3-8 days), however, young children and immunosuppressed patients may continue to shed virus for up to 4 | See footnote 3 |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| | | | | weeks after symptom onset. | PHE guidance |
| Rhinoviruses (common cold) | Droplet | Single en-suite room cohort if two or more patients | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | While symptomatic. | Until resolution of symptoms. |
| Rubella virus (German measles)[5] | Droplet | Single en-suite room | Fluid-resistant surgical facemask (FRSM) for direct patient care .1metre and RPE for AGPs | From 7 days before symptoms appear and up to 7 days after appearance of the rash. | Until 7 days after rash appears.<br><br>PHE guidance |
| *Streptococcus pneumoniae* | Droplet | Single en-suite room (until patient has been established on appropriate antimicrobial treatment)[4] | Fluid-resistant surgical facemask (FRSM) for direct patient care >1 metre and RPE for AGPs | While symptomatic until 24 to 48 hours after antimicrobial therapy has commenced. | Until 48 hours after appropriate antimicrobial therapy has commenced.<br><br>PHE guidance |
| *Streptococcus pyogenes* (Group A Strep) | Droplet | Single en-suite room (until patient has been established on | Fluid-resistant surgical facemask (FRSM) for direct | While febrile and until 24 hours after therapeutic dose of | Until at least 24 hours after appropriate |

| Respiratory Infection/ Infectious agent | TBPs required (Contact/droplet/airborne)[1] | Recommended Patient placement[2] | Fluid-resistant surgical mask (FRSM) or respiratory protective equipment (RPE) required | Period of infectivity | Duration of precautions whilst patients is in hospital (where reported in the evidence)[3] |
|---|---|---|---|---|---|
| | | appropriate antimicrobial treatment)[4] | patient care >1 metre and RPE for AGPs until patient has been established on appropriate antimicrobial treatment[4] | antimicrobial therapy commenced. | antimicrobial therapy commences has commenced.<br><br>PHE guidance |
| Varicella virus (Chickenpox)[5] | Airborne | Isolation room/suite | RPE while in the care area and for AGPs | From 2 days before the rash appears up until the vesicles crust over/scabs. | Until the last vesicles crust over/scabs.<br><br>PHE guidance |

[1] Where droplet and airborne precautions is indicated, contact precautions will also apply, taking account of the surrounding contaminated environment which results from droplet/aerosol fall out.

[2] Recommended patient placement described in the table is essential when managing patients that require airborne precautions, until transmission based precautions are no longer required. When managing patients that require contact or droplet precautions, the advised patient placement is essential in high-risk areas e.g. ICU/PICU/NICU, oncology, haematology. All efforts should be made to isolate patients who require droplet precautions in a single side room however, if single side room capacity is limited, patients requiring airborne precautions should be prioritised for isolation. It is recognised that wards and departments within acute settings where AGPs are undertaken routinely, and where there is a lack of single side room facilities to accommodate all patients with suspected/confirmed respiratory infection undergoing AGPs, unit wide precautions may be necessary.

[3] Clear and specific guidance on the duration of precautions is not available for all pathogens. Transmission based precautions should only be discontinued in consultation with appropriate clinical staff taking into consideration the clinical symptoms, whether they are receiving appropriate antimicrobial therapy and

microbiological testing, where available. Prolonged shedding of some pathogens has been observed in specific patients group such as children, the elderly and immunosuppressed patients. These patients may remain infectious for a longer period of time and the duration of TBPs may require modification based on available pathogen-specific guidance and patient information.

[4] 'Appropriate antimicrobial therapy' will include the choice of treatment, dose, frequency, and number of days of treatment. It will vary by infectious agent and should be determined by the clinical team and informed by local and national prescribing guidance where available.

[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.

NB. For single room defintions and specification refer to (HNB 00-09) Infection control in the built environment.

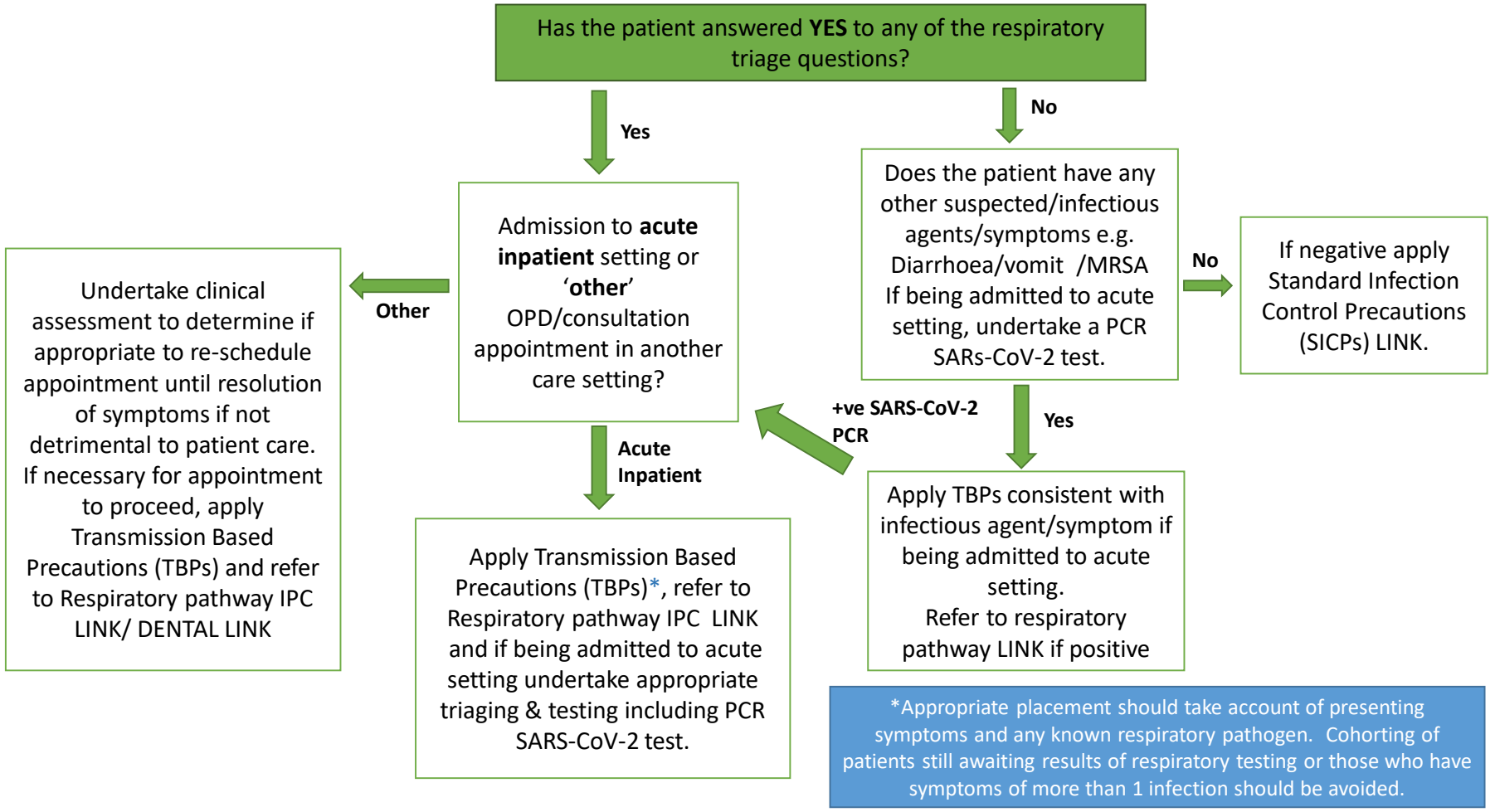
## Appendix 2: Respiratory triage tool: Questions for use in health and care settings (winter 2021/2022)

**Triage questions should be carried out prior to arrival at a care area or as soon as possible on arrival.**

| Question | Yes | No |
|---|---|---|
| 1. Do you have any of the following symptoms;<br>• High temperature or fever?<br>• New, continuous cough?<br>• A loss or alteration to taste or smell?<br><br>OR any combination of two or more new respiratory symptoms e.g. sore throat, breathing difficulties.<br><br>If yes, follow the respiratory pathway (LINK) or if treatment can be deferred/ reschedule providing this is not detrimental to patient care/treatment plan. Respiratory pathway to be followed whilst awaiting negative SARS-CoV-2 PCR test result or other point of care (POC) /rapid testing for respiratory infections if available for the setting. | | |
| 2. Do you or any member of your household/family have a confirmed diagnosis of COVID-19 in the last 10 days?<br><br>If yes, follow the respiratory pathway (LINK) or if treatment can be deferred /reschedule providing this is not detrimental to patient care/treatment plan. | | |
| 3. Are you or any member of your household/family waiting for a COVID-19/SARs-CoV-2 PCR test result?<br>If yes, follow the respiratory pathway (LINK) or if treatment can be deferred/ reschedule providing this is not detrimental to patient care/treatment plan whilst awaiting negative SARS-CoV-2 PCR test result. | | |
| 4. Have you travelled internationally in the last 10 days to a country that is on the government red list?<br><br>If yes and urgent care is required then follow the respiratory pathway or wait until negative SARS-CoV-2 PCR test results are available before proceeding with care. | | |

Do we need a questions for those who are exempt from isolation i.e. fully vaccinated? Inpatient/outpatient settings.

# Appendix 3: Patient placement algorithm



# Glossary of terms

### Aerosol-generating procedures (AGPs)

Certain medical and patient care activities that can result in the release of airborne particles (aerosols). AGPs can increase the risk transmission of infections.

### Airborne transmission

The spread of infection from one person to another by airborne particles (aerosols) containing infectious agents. Airborne particles Very small particles that may contain infectious agents. They can remain in the air for long periods of time and can be carried over long distances by air currents. Airborne particles can be released when a person coughs or sneezes, and during aerosol generating procedures (AGPs). 'Droplet nuclei' are aerosols formed from the evaporation of larger droplet particles (see droplet transmission). Aerosols formed from droplet particles in this way behave as other aerosols. Airborne precautions Measures used to prevent, and control infection spread without necessarily having close patient contact via aerosols (less than or equal to 5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols can penetrate the respiratory system to the alveolar level.

### BS/EN standards

Mandatory technical specifications created by either the British Standards Institute (BS) or European Standardisation Organisations (EN) in collaboration with government bodies, industry experts and trade associations. They aim to ensure the quality and safety of products, services and systems.

### Cohort area

An area (room, bay, ward) in which 2 or more patients (a cohort) with the same confirmed infection are placed. A cohort area should be physically separate from other patients.

### Contact precautions

Measures used to prevent and control infections that spread via direct contact with the patient or indirectly from the patient's immediate care environment (including care equipment). Contact transmission consists of 2 distinct types: direct contact and indirect contact. Direct transmission occurs when microorganisms are transmitted directly from an infectious individual to another individual without the involvement of another contaminated person or object (fomite). Indirect transmission occurs when microorganisms are transmitted from an infectious individual to another individual through a contaminated object or person (fomite) or person.

### COVID-19

COVID-19 is a highly infectious respiratory disease caused by a novel coronavirus. The disease was discovered in China in December 2019 and has since spread around the world.

### Droplet precautions

Measures used to prevent, and control infections spread over short distances (at least 1 metre or 3 feet) via droplets (greater than 5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level. COVID-19 is predominantly spread via this route.

### Droplet transmission

The spread of infection from one person to another by droplets containing infectious agents.

### Eye or face protection

Worn when there is a risk from splashing of secretion (including respiratory secretions). Eye or face protection can be achieved using any one of:

• a fluid-resistant surgical (Type IIR) surgical face mask (FRSM) with integrated visor

• a full face visor or shield

• googles plus a Fluid-resistant (Type IIR) surgical face mask (FRSM)

A disposable FRSM worn over the nose and mouth to protect the mucous membranes of the wearer's nose and mouth from splashes and infectious droplets. FRSMs can also be used to protect patients. When recommended for infection control purposes a 'surgical face mask' typically denotes a fluid-resistant (Type IIR) surgical mask.

### Fluid-resistant

A term applied to fabrics that resist liquid penetration, often used interchangeably with 'fluid-repellent' when describing the properties of protective clothing or equipment.

### Frequently touched surfaces

Surfaces of the environment which are commonly touched or come into contact with human hands.

### Healthcare or clinical waste

Waste produced as a result of healthcare activities for example soiled dressings, sharps.

### Hierarchy of Controls

The hierarchy of controls are used to identify the appropriate controls with Elimination, Substitution, Engineering Controls, Administrative Controls, Personal Protective Equipment.

### High-flow nasal cannula (HFNC) therapy

HFNC is an oxygen supply system capable of delivering up to 100% humidified and heated oxygen at a flow rate of up to 60 litres per minute.

### Higher risk acute care area/units

Intensive care units, intensive therapy units, high dependency units, emergency department resuscitation areas, wards with non-invasive ventilation; operating theatres; endoscopy units for upper Respiratory, ENT or upper GI endoscopy; and other clinical areas where AGPs are regularly performed. NB. Referred to as 'AGP hot spots'.

### Incubation period

The period between the infection of an individual by a pathogen and the manifestation of the illness or disease it causes.

### Induction of sputum

Induction of sputum typically involves the administration of nebulised saline to moisten and loosen respiratory secretions (this may be accompanied by chest physiotherapy (percussion and vibration)) to induce forceful coughing.

### Infectious linen

Linen that has been used by a patient who is known or suspected to be infectious and or linen that is contaminated with blood and or other body fluids, for example faeces.

### Overcrowding

In a healthcare setting overcrowding occurs when more persons (patients, staff or visitors) or equipment are present in a care area than is comfortable or safe. Safety is determined by risk assessment with particular reference in acute settings to (HBN 04-01) Adult in-patient facilities.

### Personal Protective Equipment (PPE)

Equipment a person wears to protect themselves from risks to their health or safety, including exposure to infection agents. The level of PPE required depends on the:

- suspected or known infectious agent
- severity of the illness caused
- transmission route of the infectious agent
- procedure or task being undertaken

### Respiratory droplets

A small droplet, such as a particle of moisture released from the mouth during coughing, sneezing, or speaking.

### Respiratory protective equipment

Respiratory protection that is worn over the nose and mouth designed to protect the wearer from inhaling hazardous substances, including airborne particles (aerosols). There are 2 types of respiratory protection that can be used, tight-fitting disposable FFP respirators and loose-fitting powered hoods (TH2). FFP stands for filtering face piece. There are 3 categories of FFP respirator: FFP1, FFP2 and FFP3. FFP3 and loose-fitting powered hoods provide the highest level of protection and are recommended when caring for patients in areas where high risk aerosol generating procedures (AGPs) are being performed.

### Respiratory symptoms

Respiratory symptoms include:

• rhinorrhoea (runny nose)

• sore throat

• cough

• difficulty breathing or shortness of breath

### Segregation

Physically separating or isolating from other people.

### SARS-CoV

Severe acute respiratory syndrome coronavirus, the virus responsible for the 2003 outbreak of human coronavirus disease. SARS-CoV-2 Severe acute respiratory syndrome coronavirus 2, the virus responsible for the COVID-19 pandemic.

### Single room

A room with space for one patient and usually contains (as a minimum) a bed, a locker or wardrobe and a clinical wash-hand basin.

### Source control

Source control refers to use of well-fitting cloth masks, fluid-resistant surgical masks, or respirators to cover a person's mouth and nose to prevent spread of respiratory secretions when they are breathing, talking, sneezing, or coughing.

### Standard infection control precautions (SICPs)

SICPs are the basic infection prevention and control measures necessary to reduce the risk of transmission of an infectious agent from both recognised and unrecognised sources of infection.

### Staff cohorting

When staff care for one specific group of patients and do not move between different patient cohorts. Patient cohorts may include for example 'symptomatic', 'asymptomatic and exposed', or 'asymptomatic and unexposed' patient groups.

### Transmission based precautions

Additional precautions to be used in addition to SICPs when caring for patients with a known or suspected infection or colonisation.

### Universal masking

Universal masking in health facilities is defined as the requirement for all persons (staff, patients, visitors, service providers and others) to wear a mask at all times except for when eating or drinking.