



Public Health
England



COVID-19: Guidance for maintaining services within health and care settings

Infection prevention and control recommendations

Version 1.2

Uncontrolled if printed.



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, Health Protection Scotland (HPS)/National Services Scotland, Public Health England (PHE) and NHS England as official guidance.

Amendments have been made to strengthen existing messaging and provide further clarity where needed, including updates on the hierarchy of controls, clarity over the use of valved respirators, and highlighting the need to protect those previously shielding and who are considered clinically extremely vulnerable from COVID-19.

Changes to the previous version are listed on page 7 of the guidance. Following a clinical and scientific review, no changes to the recommendations, including PPE, have been made in response to the new variant strains at this stage, however this position will remain under constant review. Organisations who adopt practices that differ from those recommended/stated in the national guidance are responsible for ensuring safe systems of work, including the completion of a risk assessments approved through local governance procedures.

All NHS organisations should ensure 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.

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](#).

Archived guidance:

- Version 3.2 ('COVID-19: Infection Prevention and Control Guidance') 18 June 2020
- Version 1 'COVID-19 Guidance for the Remobilisation of services within health and care settings: infection prevention and control (IPC) recommendations' on 20 August 2020
- Version 1.1: COVID-19 Guidance for maintaining services within health and care settings: infection prevention and control (IPC) recommendations' on 21 January 2021
- Version 1.2 COVID-19 Guidance for maintaining services within health and care settings: infection prevention and control (IPC) recommendations is an amendment to the previous version 1.1

The IPC principles in this document apply to all health and care settings, including acute, diagnostics, independent sector, mental health and learning disabilities, primary care, care homes, maternity and paediatrics (this list is not exhaustive).

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.

This IPC guidance will be updated in line with service need and as the evidence evolves. The administrative measures outlined in the guidance are consistent with World Health Organization (**WHO**) **guidance**.

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Key messages

Local and national prevalence and incidence data will continue to guide services as advised by country specific/public health organisations. Identification of new variants of concern is inevitable and on each new identification evidence for any change in transmissibility, mode of transmission, disease severity and any evidence of vaccine evasion will need to be considered as well as local incidence and prevalence of any new variant of concern. It may be necessary to change the IPC measures required on the basis of any new evidence.

For further information on the variants of concern go to:

- [Threat Assessment Brief: Emergence of SARS-CoV-2 B.1.617 variants in India and situation in the EU/EEA](#)
- [Investigation of SARS-CoV-2 variants of concern: technical briefings](#)

For further guidance on investigating and managing variants of concern go to:

- [Guidance for investigating and managing individuals with a possible or confirmed SARS-CoV-2 Variant of Concern or Variant Under Investigation](#)

This data will continue to be used to ensure patients/individuals' treatment, care and support can be managed in the 3 COVID-19 pathways, which remain as:

- high risk – this includes patients/individuals who are confirmed COVID-19 positive by a SARS-CoV-2 PCR test or are symptomatic and suspected to have COVID-19 (awaiting result)
- medium risk – this includes patients/individuals who are waiting for their SARS-CoV-2 PCR test result and who have no symptoms of COVID-19 and individuals who are asymptomatic with COVID-19 contact/exposure identified
- low risk – this includes patients/individuals who have been triaged/tested (negative)/clinically assessed with no symptoms or known recent COVID-19 contact/exposure

To ensure maximum workplace risk mitigation, organisations should undertake local risk assessments based on the measures as prioritised in the hierarchy of controls. If an unacceptable risk of transmission remains following this **risk assessment**, it may be necessary to consider the extended use of RPE for patient care in specific situations. The risk assessment should include evaluation of the ventilation in the area, and prevalence of infection/new variants of concern in the local area.

Individuals who are clinically extremely vulnerable from COVID-19 will require protective IPC measures depending on their medical condition and treatment whilst receiving healthcare for example priority for single room isolation.

Sessional use of single use PPE/RPE items continues to be minimised and only applies to extended use of facemasks (all pathways) or FFP3 respirators (together with eye/face protection) in the medium and high risk pathway for healthcare workers where airborne precautions are indicated.

The use of face masks or face coverings¹ across the UK remains as an IPC measure. In addition to social distancing, hand hygiene for staff, patients/individuals and visitors is advised in both clinical and non-clinical areas to further reduce the risk of transmission.

Patients in all care areas should still be encouraged and supported to wear a face mask, providing it is tolerated and is not detrimental to their medical or care needs.

Physical distancing of 2 metres remains in place as standard practice in all health and care settings, unless providing clinical or personal care and wearing appropriate PPE.

Patients/individuals on a low risk pathway require Standard Infection Control Precautions for all care including surgery or procedures.

Triaging and SARS-CoV-2 testing must be undertaken for all patients either at point of admission or as soon as possible/practical following admission across all the pathways.

The IPC principles in this document apply to all health and care settings including acute, diagnostics, independent sector, mental health and learning disabilities, primary care, care homes, care at home, maternity and paediatrics (this list is not exhaustive).

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.

The IPC measures recommended are underpinned by the National Infection Prevention and Control Manual (NIPCM) practice guide and associated literature reviews. NHS England is using this an opportunity to introduce and adopt the NIPCM as set out in the 'UK Five-year Tackling Antimicrobial Resistance National Action Plan (2019-2024)'.

¹ Each UK country has recommended that the general public must wear a face covering by law in some public places unless exempt from wearing a face covering due to age, health or other condition. Each country also has guidance for facemasks/face coverings when working outside the clinical area in health and social care settings.

1. Explanation of the updates to infection prevention and control 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, Health Protection Scotland (HPS)/National Services Scotland, Public Health England (PHE) and NHS England for health and care organisations as the UK moves to maintain healthcare services. The content is consistent with the administrative measures outlined in WHO IPC during healthcare when coronavirus disease (COVID-19) is suspected or confirmed: Interim Guidance, June 2020. In addition, the updates to this guidance are informed by the paper produced for the Scientific Advisory Group for Emergencies; [Masks for healthcare workers to mitigate airborne transmission of SARS-CoV-2. \(23.04.2021\).](#)

The IPC measures recommended are underpinned by the [National Infection Prevention and Control Manual](#) practice guide and associated literature reviews.

Maintaining services continues to require 'new ways' of working during the ongoing pandemic. Continual assessment of the available evidence/science and feedback from guidance users, professional bodies and associations, has identified the amendments required to version 1.1 to assist in supporting services in this 'new and changing' environment whilst COVID-19 remains a threat. This is based upon emerging evidence, experience and expert opinion.

The main amendments to this version of the guidance are:

1. Inclusion of the hierarchy of controls as these apply to COVID-19, with definitions and supporting materials for implementation. Also, where an unacceptable risk of transmission remains following the hierarchy of controls risk assessment, it may be necessary to consider the extended use of RPE for patient care in specific situations. The risk assessment should include evaluation of the ventilation in the area, operational capacity, and prevalence of infection/new variants of concern in the local area.
2. Further advice on the use of valved respirators with examples of sterile procedures in the clinical setting.
3. Further advice on minimising sessional or extended use of gowns where cohorts of confirmed COVID-19 patients are managed and there is a lack of single rooms/isolation rooms.

4. Amendment to the AGP list to state 'upper gastro-intestinal endoscopy where open suction of the upper respiratory tract occurs beyond the oro-pharynx'.
5. Individuals who are clinically extremely vulnerable from COVID-19 will require protective IPC measures depending on their medical condition and treatment whilst receiving healthcare for example, priority for single room isolation.

2. Introduction

2.1 Scope and purpose

This document sets out the IPC advice for health and care organisations as the UK continues to maintain healthcare services during the ongoing pandemic.

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). It includes key IPC control recommendations and includes risk assessed patient pathway scenarios to help guide the implementation of measures to provide safe and effective care locally and is based on the best available evidence.

This version 1.2 is an amendment to the COVID-19 IPC version 1.1) and has been updated to continue to support services. The challenge facing the NHS is to maintain healthcare services and manage NHS capacity whilst providing a safe and equitable service for staff, visitors and patients/individuals including those who may present with COVID-19, those who have recovered from COVID-19 and those with no history of COVID-19 until public health strategies such as mass vaccination are complete.

Maintaining services requires a continuous review of ways of working to respond to the pandemic and guidance for working in a changing environment requires continual and ongoing development based upon emerging evidence, experience and expert opinion.

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. Links can be accessed in the resources below.

NB. This guidance does not apply to Adult Social Care settings in England given **existing guidance** for adult social care settings has already been provided and continues to be relevant. DHSC/PHE will continuously review this guidance and update as needed.

This document does not provide links throughout the sections; please follow the country-specific resources, for example visiting guidance, testing, discharge policies. IPC COVID-19 resources for:

- England can be found at [Infection Prevention and Control supporting documentation and Coronavirus \(COVID-19\)](#)
- Scotland can be found at [COVID-19 compendium](#) and [Scottish COVID-19 Infection Prevention and Control Addendum for Acute Settings](#)
- Wales can be found at [Health and social care professionals: coronavirus](#)
- Northern Ireland can be found at [Guidance for professionals and organisations](#)

Further updates will be made to this document as new data/evidence emerges and as the **COVID-19 alert levels** change. This is a scale of 1 to 5 which the UK Government uses to reflect the degree of threat to the country from the current coronavirus pandemic.

3. 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 ensure 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)
- testing and self-isolation strategies are in place with a local policy for the response if transmission rates of COVID-19 increase
- training in IPC measures are provided to all staff, including: the correct use of PPE (including a face fit test 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. Guidance on carrying out risk assessments can be found by following the links to the country-specific IPC COVID-19 resources on page 10
- patients/individuals at high risk/extremely high risk of severe illness are protected from COVID-19. This must include consideration of families and carers accompanying patients/individuals for treatments/procedures
- health and care settings are COVID-19 secure workplaces as far as practical, that is, that any workplace risk(s) are mitigated maximally for everyone. This may 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

DISCLAIMER

When an organisation adopts practices that differ from those recommended/stated in this national guidance, that individual organisation is responsible for ensuring safe systems of work, including the completion of a risk assessment(s) approved through local governance procedures, for example Integrated Care System level, Health Board.

4. COVID-19 care pathways

These pathways (Table 1) are specific to the COVID-19 pandemic and are examples of how organisations may separate COVID-19 risks. It is important to note, that these pathways do not necessarily define a service to a particular pathway and should not impact the delivery and duration of care for the patient or individual. Moving patients between pathways should be based on their infectious status (testing required), clinical need, availability of services and this should be agreed locally. Implementation strategies must be underpinned by patient/procedure risk assessment, appropriate testing regimens (as per organisations or country specific) and epidemiological data.

Additional information on specific settings can be found in: NICE (2020) '[COVID-19 rapid guideline: arranging planned care in hospitals and diagnostic services](#)'.

Triaging and testing within all health and other care facilities must be undertaken to enable early recognition of COVID-19 cases. See [Appendix 1](#) for an example of triage questions. Triage should be undertaken by clinical staff who are trained and competent in the application of the [clinical case definition](#) prior to arrival at a care area, or as soon as possible on arrival, and allocated to the appropriate pathway. This should include screening for other infections/multi-drug resistant organisms, including as per national screening requirements.

Infection risk and IPC precautions, for example Standard Infection Control Precautions (SICPs) or Transmission Based Precautions (TBPs) must be communicated between care areas/pathways, including when discharge planning.

Patients with respiratory symptoms should be assessed in a segregated area/ideally a single room pending test result to define the causative organism.

Individuals who are clinically extremely vulnerable from COVID-19 will require protective IPC measures depending on their medical condition and treatment whilst receiving healthcare for example, priority for single room isolation.

Table 1. Care pathways

<p>High-Risk COVID-19 Pathway Section 10: SICPs & TBPs</p>	<p>Medium Risk COVID-19 Pathway Section 9: SICPs & TBPs</p>	<p>Low Risk COVID-19 Pathway Section 7: SICPs</p>
<p>Any care facility where:</p> <p>a) untriaged individuals present for assessment or treatment (symptoms unknown) OR b) confirmed SARS-CoV-2 PCR positive individuals are cared for OR c) symptomatic or suspected COVID-19 individuals including those with a history of contact with a COVID-19 case, who have been triaged/clinically assessed and are waiting test results OR d) symptomatic individuals decline testing</p>	<p>Any care facility where:</p> <p>a) triaged/clinically assessed individuals are asymptomatic and are waiting a SARS-CoV-2 PCR test result OR b) triaged/clinically assessed individuals are asymptomatic with COVID-19 contact/exposure identified OR c) testing is not required or feasible on asymptomatic individuals and infectious status is unknown OR d) asymptomatic individuals decline testing</p>	<p>Any care facility where:</p> <p>a) triaged/clinically assessed individuals with no symptoms or known recent COVID-19 contact/exposure AND have a negative SARS-CoV-2 PCR test within 72 hours of treatment and, for planned admissions, have self-isolated for the required period or from the test date OR b) Individuals who have recovered (14 days) from COVID-19 and have had at least 48 hours without fever or respiratory symptoms OR c) patients or individuals are part of a regular formal NHS testing</p>
<ul style="list-style-type: none"> • Designated areas within Emergency/Resuscitation Departments • GP surgeries/walk in centres • Facilities where confirmed or suspected/symptomatic COVID-19 individuals are cared, for example <ul style="list-style-type: none"> ○ emergency admissions to inpatient areas (adult and children) ○ Mental health ○ Maternity ○ Critical Care Units ○ Renal dialysis units 	<ul style="list-style-type: none"> • Designated areas within Emergency/Resuscitation, GP surgeries and walk-in centres • Non elective admissions • Primary care facilities, for example general dental and general practice • Facilities where individuals are cared, for example inpatients; adult and children, Mental health, Maternity, Critical Care Units • Outpatient depts. including Diagnostics and Endoscopy • Care homes* • Prisons 	<ul style="list-style-type: none"> • Planned/elective surgical procedures including day cases • Oncology/chemotherapy patients and/or facilities • Planned in-patient admissions (adult and children), Mental health, Maternity • Outpatients including Diagnostics/Endoscopy • Care homes* • Prisons

Examples of patient (individual) groups/facilities within these pathways: these lists are not exhaustive

*This guidance does NOT apply to Adult Social Care settings in England

4.1 Administration measures for the pathways

1. Establish separation of patient pathways and staff flow to minimise contact between pathways. For example, this could include provision of separate entrances and exits (if available) or use of one-way entrance and exit systems, clear signage and restricted access to communal areas:
 - care areas (for example, ward, clinic, GP practice, care home) may designate self-contained area(s) or ward(s) for the treatment and care of patients/individuals at high, medium and low risk of COVID-19. Temporal separation may be used in clinics/primary care settings
 - as a minimum in smaller facilities or primary care outpatient settings, physical/or temporal separation of patients/departments at high risk of COVID-19 from the rest of the facility/patients
2. Ensure that hygiene facilities IPC measures and messaging are available for all patients/individuals, staff and visitors to minimize COVID-19 transmission such as:
 - hand hygiene facilities including instructional posters
 - good respiratory hygiene measures
 - maintaining physical distancing of 2 metres at all times (unless wearing PPE due to clinical or personal care as per pathways)
 - increasing frequency of decontamination of equipment and the environment
 - considering improving ventilation by opening windows (natural ventilation) if mechanical ventilation is not available
 - clear advice on the use of face coverings and facemasks by patients/individuals, visitors and staff in non-patient facing areas – this will include:
 - use of facemasks/ coverings by all outpatients (if tolerated) and visitors when entering a hospital, GP/dental surgery or other care settings
 - use of a surgical facemask (Type II or Type IIR) by all patients across all pathways, if this can be tolerated and does not compromise their clinical care, such as when receiving oxygen therapy. This will minimise the dispersal of respiratory secretions and reduce environmental contamination
 - extended use of facemasks by all staff in both clinical and non-clinical areas within the healthcare or care settings
 - where visitors are unable to wear face coverings due to physical or mental health conditions or a disability, clinicians/person in charge should consider what other IPC measures are in place, such as physical distancing and environmental cleaning, to ensure sufficient access depending on the patient's condition and the care pathway
3. Where possible and clinically appropriate remote consultations rather than face-to-face should be offered to patients/individuals.

4. Ensure restricted access between pathways if possible (depending on size of the facility or prevalence/incidence rates), by other patients/individuals, visitors or staff, including patient transfers, and in communal staff areas (changing rooms/restaurant). If the prevalence/incidence rates decline this may not be necessary between pathways providing the IPC measures are reliably maintained.
5. Ensure areas/wards are clearly signposted, using physical barriers as appropriate to ensure patients/individuals and staff understand the different risk areas.
6. Ensure local standard operating procedures detail the measures to segregate equipment and staff, including planning for emergency scenarios, as the prevalence/incidence of COVID-19 may increase or decrease until cessation of the pandemic.
7. Ensure a rapid and continued response through ongoing surveillance of rates of infection within the local population and for hospital/organisation onset cases (staff and patients/individuals). 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.
8. If the prevalence/incidence rate for COVID-19 is high, where possible, assign separate teams of health and other care workers including domestic staff, to care for individuals in isolation/cohort rooms or areas/pathways. If a member of staff is required to move between sites/hospitals/cohort areas due to the unique function of their role, all IPC measures including physical distancing must be maintained.
9. Providers of planned services should be responsive to local and national prevalence/incidence data on COVID-19 and adapt processes so that services can be stepped-up or down. This can be assessed using the respective countries weekly COVID-19 surveillance report/SARS-CoV-2 positivity data on admission, and local capacity and resources.
10. 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 should undertake risk assessments based on these measures, prioritised in the hierarchy of controls in the context of managing infectious agents. If an unacceptable risk of transmission remains following a risk assessment taking these controls into account, it may be necessary to consider the extended use of RPE for patient care in specific situations. The risk assessment should include evaluation of the ventilation in the area, operational capacity, and prevalence of infection/new variants of concern in the local area.

Supporting tools for local risk assessment are available at [NHS England Every Action Counts Resources](#).

4.2 Community settings

Areas where triaging for COVID-19 is not possible for example, community pharmacies:

- signage at entry points advising of the necessary precautions
- staff should maintain 2 metres physical distance with customers/service users, using floor markings, clear screens or wear surgical face masks (Type IIR) where this is not possible
- patients/individuals with symptoms should be advised not to enter the premises

4.3 Outpatient/primary/day care

In outpatient, primary care and day care settings:

- where possible and appropriate, services should utilise virtual consultation
- if attending outpatients or diagnostics, service providers should consider timed appointments and strategies such as asking patients/individuals to wait to be called to the waiting area with minimum wait times
- patients/individuals should not attend if they have symptoms of COVID-19 or are isolating as a contact/exposure and communications should advise actions to take in such circumstances, for example for patients/individuals receiving chemotherapy and renal dialysis
- communications prior to appointments should provide advice on what to do if patients/individuals suspect they have come into contact with someone who has COVID-19 prior to their appointment
- outpatient letters should be altered to advise patients/individuals on parking, entrances, IPC precautions and COVID-19 symptoms
- patients/individuals must be instructed to remain in waiting areas and not visit other parts of the facility
- prior to admission to the waiting area, all patients/individuals and accompanying persons should be triaged for COVID-19 symptoms and assessed for exposure to contacts
- patients/individuals and accompanying persons will also be asked to wear a mask / face covering at all times

NB. SARS-CoV-2 confirmed positive patients/individuals or those self-isolating should still be assessed and reviewed following the high/medium care pathway in these settings, to ensure urgent treatment/appointments are accommodated. This is important to avoid unwarranted poor patient outcomes.

NB. In some clinical outpatient settings, such as vaccination/injection clinics, where contact with individuals is minimal, the need for PPE items for each encounter, for example gloves and aprons are only recommended when there is (anticipated) exposure to blood/body fluids or non-intact skin. Staff administering vaccinations/injections must apply hand hygiene between patients and wear a sessional facemask.

5. Standard Infection Control Precautions (SICPs): all pathways or settings

SICPs are the basic IPC measures necessary to reduce the risk of transmitting infectious agents from both recognised and unrecognised sources of infection and are required across ALL COVID-19 pathways. 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.

The application of SICPs during care delivery is determined by an assessment of risk to and from individuals and includes the task, level of interaction and/or the anticipated level of exposure to blood and/or other body fluids.

SICPs must therefore be used by all staff, in all care settings, at all times and for all patients/individuals, whether infection is known or not, to ensure the safety of patients/individuals, staff and visitors. This section highlights the key measures for the COVID-19 pathways. Please refer to the practice guide* for additional information on the other elements which remain unchanged.

The elements of SICPs are:

- patient placement and assessment for infection risk (screening/triaging/testing)
- hand hygiene
- respiratory and cough hygiene
- personal protective equipment (see below)
- safe management of the care environment (see below)
- safe management of care equipment (see below)
- safe management of healthcare linen
- safe management of blood and body fluids
- safe disposal of waste (including sharps)
- occupational safety: prevention and exposure management
- maintaining social/physical distancing (new SICP for COVID-19)

*Practice guides and literature reviews to support SICPs can be found [for England and Scotland](#), [Wales](#) and [Northern Ireland](#).

5.1 Personal Protective Equipment (PPE)

For the purpose of this document, the term 'personal protective equipment' is used to describe products that are either PPE or medical devices that are approved by the Health and Safety Executive (HSE) and the Medicines and Healthcare products Regulatory Agency (MHRA) as protective solutions in managing the COVID-19 pandemic. Local or **national uniform policies** should be considered when wearing PPE.

All PPE should be:

- located close to the point of use (where this does not compromise patient safety, for example, mental health/learning disabilities). In domiciliary care PPE must be transported in a clean receptacle
- stored safely and in a clean, dry area to prevent contamination
- within expiry date (or had the quality assurance checks prior to releasing stock outside this date)
- single use unless specified by the manufacturer or as agreed for extended/sessional use including surgical facemasks
- changed immediately after each patient and/or after completing a procedure or task (unless sessional use has been agreed and local risk assessment undertaken)
- disposed into the correct waste stream depending on setting, for example domestic waste/offensive (non-infectious) or infectious clinical waste
- discarded if damaged or contaminated
- safely doffed (removed) to avoid self-contamination. See **guidance on donning (putting on) and doffing (removing)**
- decontaminated after each use following manufacturer's guidance if reusable PPE is used, specifically non-disposable goggles/face shields/visors

Gloves must:

- be worn when exposure to blood and/or other body fluids, non-intact skin or mucous membranes is anticipated or likely²
- 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

NB. Double gloving is not recommended for routine clinical care of COVID-19 cases.

² vinyl medical gloves should only be worn in care situations where there is no anticipated exposure to blood and/or body fluids

Aprons must be:

- worn to protect uniform or clothes when contamination is anticipated or likely
- worn when providing direct care within 2 metres of suspected/confirmed COVID-19 cases
- changed between patients and/or after completing a procedure or task

Full body gowns or fluid repellent coveralls must be:

- worn when there is a risk of extensive splashing of blood and/or body fluids
- worn when undertaking aerosol generating procedures
- worn when a disposable apron provides inadequate cover for the procedure or task being performed (surgical procedures)
- changed between patients /individuals and immediately after completing a procedure or task

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

NB. Regular corrective spectacles are not considered as eye protection

Fluid resistant surgical face mask (FRSM Type IIR) masks must:

- be worn with eye protection if splashing or spraying of blood, body fluids, secretions or excretions onto the respiratory mucosa (nose and mouth) is anticipated or likely
- be worn when providing direct care within 2 metres of a suspected/confirmed COVID-19 case
- be well-fitting and fit for purpose, fully cover the mouth and nose (manufacturers' instructions must be followed to ensure effective fit and protection)
- not be touched once put on or allowed to dangle around the neck
- be replaced if damaged, visibly soiled, damp, uncomfortable or difficult to breathe through

Surgical face masks Type II must be:

- worn for extended use by healthcare workers when entering the hospital or care setting (Type IIR is also suitable). Type I are suitable in some settings, refer to the resource section for country specific guidance.

Headwear/footwear:

- headwear is not routinely required in clinical areas (even if undertaking an AGP) unless part of theatre attire or to prevent contamination of the environment such as in clean rooms
- headwear worn for religious reasons (for example, turban, kippot veil, headscarves) are permitted provided patient safety is not compromised – these must be washed and/or changed between each shift or immediately if contaminated and comply with additional attire in, for example, theatres
- foot/shoe coverings are not required or recommended for the care of COVID-19 cases

NB. PPE may restrict communication with some individuals and other ways of communicating to meet their needs should be considered.

6. Aerosol Generating Procedures: procedures that create a higher risk of respiratory infection transmission

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.

This is the list of medical procedures for COVID-19 that have been reported to be aerosol generating and are associated with an increased risk of respiratory transmission:

- tracheal intubation and extubation
- manual ventilation
- tracheotomy or tracheostomy procedures (insertion or removal)
- bronchoscopy
- dental procedures (using high speed devices, for example ultrasonic scalers/high speed drills)
- non-invasive ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP)
- high flow nasal oxygen (HFNO)
- high frequency oscillatory ventilation (HFOV)
- induction of sputum using nebulised saline
- respiratory tract suctioning*
- upper ENT airway procedures that involve respiratory suctioning*
- upper gastro-intestinal endoscopy where open suction of the upper respiratory tract* occurs beyond the oro-pharynx
- high speed cutting in surgery/post-mortem procedures if respiratory tract/paranasal sinuses involved

*The available evidence relating to Respiratory Tract Suctioning is associated with ventilation. In line with a precautionary approach, open suctioning of the respiratory tract regardless of association with ventilation has been incorporated into the current (COVID-19) AGP list. It is the consensus view of the UK IPC cell that only open suctioning beyond the oro-pharynx is currently considered an AGP that is oral/pharyngeal suctioning is not an AGP. The evidence on respiratory tract suctioning is currently being reviewed by the AGP Panel which is an independent panel set up by the 4 CMO's to review new or further evidence for consideration.

NB. Certain other procedures or equipment may generate an aerosol from material other than patient secretions but are not considered to represent a significant infectious risk for COVID-19. Procedures in this category include administration of humidified oxygen, administration of Entonox or medication via nebulisation.

The New and Emerging Respiratory Viral Threat Assessment Group (NERVTAG) advised that during nebulisation, the aerosol derives from a non-patient source (the fluid in the nebuliser chamber) and does not carry patient-derived viral particles. If a particle in the aerosol coalesces with a contaminated mucous membrane, it will cease to be airborne and therefore will not be part of an aerosol. Staff should use appropriate hand hygiene when helping patients to remove nebulisers and oxygen masks. In addition, the current **expert consensus from NERVTAG** is that chest compressions are not considered to be procedures that pose a higher risk for respiratory infections including COVID-19.

Further information on **AGPs for neonates** and a **literature review for AGPs during COVID-19** are available.

7. Low Risk Pathway: key principles

This pathway applies to any care facility where:

a) triaged/clinically assessed individuals with no symptoms or known recent COVID-19 contact/exposure

AND

have a negative SARS-CoV-2 PCR test within 72 hours of treatment and, for planned admissions, have self-isolated for the required period or from the test date

OR

b) Individuals who have recovered (14 days) from COVID-19 and have had at least 48 hours without fever or respiratory symptoms

OR

c) patients or individuals are part of a regular formal NHS testing plan and remain negative and asymptomatic

Clinicians should advise people who are at greater risk of getting COVID-19, or having a poorer outcome from it, that they may want to self-isolate for 14 days before a planned procedure. The decision to self-isolate will depend on their individual risk factors and requires individualised care and shared decision making.

NB. Some individuals who have recovered from COVID-19 may continue to test positive for SARS-CoV-2 by PCR for up to 90 days from their initial illness onset. If they do not have any new COVID-19 symptoms and have not had a known COVID-19 exposure they are unlikely to be infectious. However, advice should be sought from an infection specialist (infectious disease/virologist/microbiologist) for severely immunosuppressed individuals who continue to test positive.

Patients/individuals on a low risk pathway require Standard Infection Control Precautions for all care including surgery or procedures.

7.1 Maintaining physical distancing

All staff and other care workers must maintain social/physical distancing of 2 metres where possible (unless providing clinical or personal care and wearing PPE as per care pathway).

7.2 Personal protective equipment

PPE required for SICPs when following the low risk pathway is as follows (see table below).

SICPs/PPE (all settings/all patients/individuals)	Disposable gloves	Disposable apron/gown	Face masks	Eye/face protection(visor)
If contact with blood and/or body fluids is anticipated	Single use	Single use apron (gown if risk of spraying / splashing)	FRSM Type IIR for direct patient care and surgical mask Type II* for extended use	Risk assess and use if required for care procedure/task where anticipated blood/body fluids spraying/splashes

*sessional/extended use of facemasks apply across the UK for HCWs in any health or other care settings

NB. Airborne precautions are NOT required for AGPs on patients/individuals in the low risk COVID-19 pathway, providing the patient has no other known or suspected infectious agent transmitted via the droplet or airborne route.

7.3 Safe management of environment/equipment and blood/body fluids

During the pandemic, the frequency of cleaning of both the environment and equipment in care (patient) areas should be increased to at least twice daily, this includes frequently touched sites/points and communal facilities such as shared toilets.

In the low risk COVID-19 pathway, organisations may choose to revert to general purpose detergents for cleaning, as opposed to widespread use of disinfectants (with the exception of blood and body fluids, where a chlorine releasing agent (or a suitable alternative) solution should be used).

7.3.1 Safe management of waste

Waste must be segregated in line with the respective countries' national regulation and there is no requirement to dispose of all waste as infectious waste in the low risk pathway.

7.3.2 Operating theatres and procedure rooms

Within the low risk COVID-19 pathway, standard theatre cleaning and time for air changes provides appropriate levels of IPC and there is no requirement for additional cleaning or theatre down time unless the patient has another infectious agent that requires additional IPC measures.

7.4 Aerosol Generating Procedures (AGPs): procedures that create a higher risk of respiratory infection transmission

Airborne precautions are NOT required for AGPs on patients/individuals in the low risk COVID-19 pathway, providing the patient has no other known or suspected infectious agent transmitted via the droplet or airborne route.

There is no additional requirement for ventilation or downtime in this pathway, providing safe systems of work, including engineering controls are in place.

7.4.1 Critical care areas

Providing suspected/confirmed COVID-19 cases can be cared for in single rooms or isolation rooms, the department should no longer be classified as an AGP 'hot spot' or 'high risk area.' This should be defined locally depending on prevalence/incidence data and the subsequent pathway assigned. This negates the requirement for the routine wearing of airborne PPE including a respirator in the low risk COVID-19 pathway.

7.4.2 Operating theatres

Patients/individuals in the low risk COVID-19 pathway do not need to be anaesthetised or recovered in the operating theatre if intubation/extubation (AGP) is required.

7.5 Visitor guidance

As outlined in Section 4.1 (2), hand hygiene and respiratory hygiene, and the wearing of a face covering (if tolerated) along with social distancing must be encouraged and maintained. Therefore visitors require no additional PPE. Visitors should be triaged.

7.6 Discharge or transfer

There is no restriction on discharge unless the patient/individual is entering a long-term care facility where testing may be required. If someone in the patient's household has COVID-19 or is a contact of a COVID-19 case and is self-isolating, the discharge guidance will be provided by the clinician.

In England, to ensure testing does not delay a timely discharge to a care home, all patients who have previously tested negative should be re-tested for SARS-CoV-2 again 48 hours prior to discharge. Immunocompetent patients who have tested positive within the previous 90 days, and remain asymptomatic, do not need to be re-tested. The information from the test results, with any supporting care information, must be communicated and transferred to the relevant care home. No-one should be discharged from hospital directly to a care home without the involvement of the local authority.

Discharge arrangements may differ between countries, refer to country specific links on page 10.

8. Transmission Based Precautions (TBPs)

Transmission based precautions (TBPs) are additional measures (to SICPs) required when caring for patients/ individuals with a known or suspected infection such as COVID-19.

TBPs are based upon the route of transmission and include:

a) Contact precautions

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). This is the most common route of infection transmission. COVID-19 can be spread via this route.

b) Droplet precautions

Used to prevent and control infections spread over short distances (at least 3 feet/1metre) via droplets ($>5\mu\text{m}$) from the respiratory tract of individuals directly onto a mucosal surfaces or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level. COVID-19 is predominantly spread via this route and the precautionary distance has been maintained at 2 metres in care settings.

c) Airborne precautions

Used to prevent and control infection spread without necessarily having close patient contact via aerosols ($\leq 5\mu\text{m}$) 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. COVID-19 can spread via this route. This can be mitigated by safe systems of work outlined in the hierarchy of controls. AGPs increase the risk of spread by the airborne route. (section 4)

Transmission characteristics

Transmission of SARS-CoV-2 implications for infection prevention precautions is contained within the WHO [scientific briefing paper](#) and CDC's [scientific brief](#) (7 May 2021).

Literature reviews to support [evidence for transmission characteristics](#) and [TBPs](#) are available.

New SARS-CoV-2 variants of concern have been identified in the UK. For further information on the variants refer to 'Threat Assessment Brief: Emergence of SARS-CoV-2 B.1.617 variants in India and situation in the EU/EEA [Investigation of SARS-CoV-2 variants of concern: technical briefings](#)'.

9. Medium Risk Pathway: key principles

This pathway applies to any care facility where:

a) triaged/clinically assessed individuals are asymptomatic and are waiting a SARS-CoV-2 PCR test result

OR

b) triaged/clinically assessed individuals are asymptomatic with COVID-19 contact/exposure identified

OR

c) testing is not required or feasible on asymptomatic individuals and therefore infectious status is unknown

OR

d) asymptomatic individuals decline testing

9.1 Maintaining physical distancing and patient placement

It is important to:

- maintain physical distancing of 2 metres at all times (unless the member of staff is wearing appropriate PPE to provide clinical care) and to advise other patients/visitors to comply
- ensure cohorted patients/individuals are physically separated from each other, for example with screens and privacy curtains between the beds to minimise opportunities for close contact – this should be locally risk assessed to ensure patient safety is not compromised

9.2 Personal protective equipment: patients/individuals with no COVID-19 symptoms and no test results

PPE required by type of transmission/exposure	Disposable gloves	Disposable apron/gown	Face masks	Eye/face protection (visor)*
Droplet/Contact PPE for direct patient care <2 metres	Single use**	Single use apron (gown required if risk of spraying / splashing)	FRSM Type IIR ¹	Single use or re-usable*
Airborne PPE (When undertaking or if AGPs are likely)	Single use	Single use apron or gown	FFP3 ² or Respirator/ Hood for AGPs	Single use or re-usable

¹ FRSM can be worn sessionally if providing care for COVID-19 cohorted patients/individuals

² FFP3 can be worn sessionally (includes eye/face protection) in high risk areas where AGPs are undertaken for COVID-19 cohorted patients/individuals

* Risk assess and use if required for care procedure/task where anticipated blood/body fluids spraying/splashes.

**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; distributing or collecting patient dietary trays.

9.3 Safe management of care environment/equipment/blood and body fluids

9.3.1 Equipment

Important considerations in the use of equipment are:

- patient care equipment should be single-use items where practicable
- reusable (communal) non-invasive equipment should be allocated to an individual patient or cohort of patients/individuals
- all reusable (communal) non-invasive equipment must be decontaminated:
 - between each and after patient/individual
 - after blood and body fluid contamination
 - at regular intervals as part of routine 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.)); 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
- the use of fans in high and medium risk pathways should be risk assessed – refer to Estates guidance

9.3.2 Environment

Important considerations for environmental cleaning and disinfection are:

- cleaning frequencies of the care environment in COVID-19 care areas must be enhanced and single rooms, cohort areas and clinical rooms (including rooms where PPE is removed) cleaned at least twice daily
- routine cleaning 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/disinfectants may be used with agreement of the local IPC/HPT
- the increased frequency of decontamination/cleaning should be incorporated into the environmental decontamination schedules for all COVID-19 areas, including where there may be higher environmental contamination rates, including for example:
 - toilets/commodes particularly if patients/individuals have diarrhoea
 - 'frequently touched' surfaces such as medical equipment, door/toilet handles, locker tops, patient call bells, over bed tables, bed rails, phones, lift buttons/communal touch points and communication devices (for example, mobile phones, tablets, desktops, keyboards) particularly where these are used by many people, should be cleaned at least twice daily with solution of detergent and 1000ppm chlorine or an agreed alternative when known to be contaminated with secretions, excretions or body fluids
- dedicated or disposable equipment (such as mop heads, cloths) must be used for environmental decontamination
- reusable equipment (such as mop handles, buckets) must be decontaminated after use with a chlorine-based disinfectant or locally agreed disinfectant

- single (isolation) rooms must be terminally cleaned as above following resolution of symptoms, discharge or transfer (this includes removal and laundering of all curtains and bed screens)

9.4 Aerosol Generating Procedures (AGPs) procedures that create a higher risk of respiratory infection transmission

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 (See section 10: High Risk Pathway).

9.4.1 Critical care areas

Droplet precautions apply when within 2 metres and providing direct patient care. Airborne precautions are required when undertaking AGPs. However, consideration may need to be given to the application of sessional use of FFP3 masks where the number of cases of suspected/possible COVID-19 requiring AGPs increases and patients/individuals cannot be managed in single or isolation rooms that is patient cohort. NB sessional use of FFP3 masks (includes eye/face protection) may be considered. All other items of PPE (Gloves/Gown) must be changed between patients and/or after completing a procedure or task.

9.4.2 Operating theatres

Patients/individuals should be anaesthetised and recovered in the operating theatre if intubation/extubation (AGP) is required. For local, neuraxial or regional anesthesia the patient is not required to be anaesthetised/ recovered in theatre.

9.5 Duration of transmission based precautions

Transmission based precautions should only be discontinued in consultation with clinicians and should take into consideration the individual's PCR test results and clinical symptoms. If test results are not available (for example the patient/individual declines) TBPs can be discontinued after 14 days (inpatients) depending on contact exposure and providing the patient/individual remains symptom free.

9.6 Visitor guidance

Visiting may be limited during increases in incidence and prevalence of COVID-19, however as cases decline and restrictions ease, visitors should be permitted to enter the facility and be educated in the IPC measures required as outlined in Section 4.1 (2). All visitors should be triaged.

This includes accompanying individuals when attending outpatient appointments such as, antenatal appointments and therapy groups.

9.7 Discharge or transfer

There is no restriction on discharge if the patient/individual is well, unless the patient/individual is entering a long-term facility and testing may be required. If someone in the patient household has COVID-19 or is a contact of a COVID-19 case and is self-isolating, the discharge guidance will be provided by the clinician.

Discharge information for patients/individuals should include an understanding of their need for any self-isolation, as well as their family members (where applicable).

Ambulance services and the receiving facilities must be informed of the infectious status of the individual.

Discharge arrangements may differ between countries, refer to country specific links on page 10.

In England, to ensure testing does not delay a timely discharge to a care home, all patients who have previously tested negative should be re-tested for SARS-CoV-2 again 48 hours prior to discharge. Immunocompetent patients who have tested positive within the previous 90 days, and remain asymptomatic, do not need to be re-tested. The information from the test results, with any supporting care information, must be communicated and transferred to the relevant care home. No-one should be discharged from hospital directly to a care home without the involvement of the local authority.

10. High Risk Pathway: key principles

This pathway applies to any emergency/urgent care facility where:

- a) untriaged individuals present for assessment or treatment (symptoms unknown*)
- OR
- b) confirmed SARS-CoV-2 (COVID-19) PCR positive patients are cared for
- OR
- c) symptomatic or suspected COVID-19 individuals including those with a history of contact with a COVID-19 case who have been triaged/assessed and are waiting test results
- OR
- d) symptomatic individuals decline testing

*Once assessed, if asymptomatic with no contact history, patients/individuals may move to the Medium risk pathway awaiting test result.

10.1 Patient placement

If the patient/individual has symptoms or a history of contact/exposure with a case, they should be prioritised for single room isolation or cohorted (if an isolation room is unavailable) until their test results are known, for example use privacy curtains between bed spaces to minimise opportunities for close contact between patients/individuals. This should be locally risk assessed to ensure this does not compromise patient safety.

If single rooms are in short supply, priority should be given to patients with excessive cough and sputum production, diarrhoea or vomiting and to those in the high risk/extremely high risk of severe illness.

Local risk assessments and clinical decisions must be made regarding placement of patients/individuals with availability of single rooms taken into consideration.

10.2 Personal protective equipment: suspected/confirmed COVID-19 patient/individual

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 re-usable
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 re-usable

¹FRSM can be worn sessionally (includes eye/face protection) if providing care for COVID-19 cohorted patients/individuals

²FFP3 can be worn sessionally (includes eye/face protection) in high risk areas where AGPs are undertaken for COVID-19 cohorted patients/individual

*NB. 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.

10.2.1 Respiratory protective equipment (RPE)/FFP3 (filtering face piece or hood):

Respirators are used to prevent inhalation of small airborne particles arising from AGPs.

Respirators should:

- be well fitting, covering both nose and mouth

- always worn when undertaking an AGP on a COVID-19 confirmed or suspected patient/individual
- 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 or COVID-19 ward
- respirators can be single use or single session use (disposable or reusable) and fluid-resistant
- 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, or the healthcare worker should be moved to an area where FFP3 respirators are not required
- fit checking (according to the manufacturer's guidance) is necessary when a respirator is put on (donned) to ensure an adequate seal has been achieved
- respirators should be compatible with other facial protection used (protective eyewear) so that this does not interfere with the seal of the respiratory protection
- the respirator should be discarded and replaced and not be subject to continued use if the facial seal is compromised, it is uncomfortable, or it is difficult to breathe through
- reusable respirators can be utilised by individuals if they comply with HSE recommendations – reusable respirators should be decontaminated according to the manufacturer's instructions

N.B. Valved respirators are not fluid-resistant unless they are also 'shrouded'. Valved non-shrouded FFP3 respirators should be worn with a full-face shield if blood or body fluid splashing is anticipated. Valved respirators 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.

Examples of sterile procedures include:

- any surgical or invasive procedure that routinely requires maximal sterile barrier precautions to prevent infection for example sterile gowns, sterile gloves, face mask as required for surgical antisepsis/ANTT – these are commonly but not exclusively undertaken in operating theatres, critical care or emergency departments
- those sterile percutaneous or invasive procedures such as interventional radiology/cardiac catheterisation, PICC or other central venous catheter insertions

NB. The ongoing use of valved respirators in theatres and surgical settings should be based on a local risk assessment. The risk of an asymptomatic healthcare worker

transmitting COVID-19 infection if wearing a valved respirator is considered 'very small', as HCW would need to be excreting virus and the patient would need to be negative for COVID-19 (FFP3 use is when a HCW is managing a suspected/confirmed COVID-19 positive patient undergoing AGPs in the medium or high risk pathway).

10.2.2 Full body gowns or fluid repellent coveralls

Full body gowns or fluid repellent coveralls must be:

- worn when there is a risk of extensive splashing of blood and/or body fluids
- worn when undertaking **aerosol generating procedures**
- worn when a disposable apron provides inadequate cover for the procedure or task being performed for example, surgery changed between patients/individuals and immediately after completing a procedure or task

NB Sessional or extended use of gowns must be minimised and only used in areas where cohorts of confirmed COVID-19 patients are managed and there is a lack of single rooms/isolation rooms. If sessional use is required, an individual patient risk assessment must be undertaken and reviewed daily. Gowns are not required when moving around a unit or department.

10.3 Safe management of care environment/equipment/blood and body fluids

Please refer to **Section 9.3**.

In addition if there are clusters or outbreaks of COVID-19 (2 or more cases linked by time and place) with significant respiratory symptoms in communal settings, cleaning frequencies should be increased.

10.4 Aerosol Generating Procedures that create a higher risk of respiratory infection transmission and operating theatres

10.4.1 Critical care

Droplet precautions would apply however, 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.

10.4.2 Operating theatres (including day surgery)

Patients/individuals should be anaesthetised and recovered in the theatre if intubation/extubation (AGP) is required using airborne precautions. This is not required for regional, neuraxial or local anaesthesia.

Ventilation in both laminar flow and conventionally ventilated theatres should remain in full operation during surgical procedures where patients/individuals have suspected/confirmed COVID-19. Air passing from operating theatres to adjacent areas will be highly diluted and is not considered to be a risk.

10.5 Duration of precautions

In general, patients with COVID-19 who are admitted to hospital will have more severe disease than those who can remain in the community, especially if they have been severely unwell or have pre-existing conditions such as severe immunosuppression. Therefore, it is recommended that these individuals should be isolated within hospital or remain in self-isolation on discharge for 14 days from their first positive SARS-CoV-2 PCR test.

Whilst in hospital patients/individuals should remain in isolation/cohort with TBPs applied for at least 14 days after onset of symptoms and should be 48 hours without a fever (without use of antipyretic medication) or respiratory symptoms. The decision to modify the duration of, or 'stand down' TBPs (contact/droplet/airborne) should be made by the clinical team managing the individuals care.

For clinically suspected COVID-19 patients who have tested negative or have not been tested for SARS-CoV-2 and whose condition is severe enough to require hospitalisation, then the 14 day isolation period should be measured from the day of admission.

Testing for virological clearance is encouraged in severely immunosuppressed patients. For these patients, IPC measures should be continued unless there is evidence of virological

clearance prior to discharge or there has been a complete resolution of all symptoms. This is different to other advice sections but reflects the complex health needs of such patients and likelihood for prolonged shedding, with risk of spread in healthcare settings. Upon discharge such patients may be retested at first follow-up appointment to help inform actions at any next medical appointment.

10.6 Visitor guidance

In this pathway, visiting should continue to be limited to only essential visitors, for example birthing partner, carer/parent/guardian. Hospitals/organisations will provide advice and guidance to support patients during these restrictions. Visitor guidance may differ between countries, refer to country specific links on page 10.

Whilst facemasks/coverings are recommended the need for visitors to wear additional PPE should be individually assessed.

10.7 Discharge or transfer

Discharge from an inpatient facility can occur when the individual is well enough and the clinician has provided them with discharge such as advice to self-isolate for at least 14 days from the date of the positive SARS-CoV-2 PCR test (providing their symptoms resolve during this period). Refer to country specific guidance links on page 10.

Advice should include written information such as, patients with a cough or a loss of, or change in, normal sense of smell or taste (anosmia), may persist in some individuals for several weeks following COVID-19 recovery, and is not currently considered an indication of ongoing infection when other symptoms have resolved.

Prior to discharge (if the patient is within the 14 days) clinicians should ascertain if there are any clinically extremely vulnerable individuals who live in the household and are currently not infected. If so, it is highly advisable for patients to be discharged to a different home until they have finished their self-isolation period. If these individuals cannot be moved to a different household, then ensure that the discharged patient is advised on infection prevention control measures as outlined in the 'Stay at home' guidance.

Advice on ongoing medical needs should be provided for patients who are discharged within their self-isolation period. If patients deteriorate at home or in a care setting, they or their carer should seek advice from NHS 111 online or by telephone, or through pre-existing services such as GP practice links with care homes. In an emergency, 999 should be called. In either case, they should inform the call attendant that they have been recently discharged from hospital with confirmed COVID-19.

Discharge information for patients/individuals to their own home should include an understanding of their need for any self-isolation, as well as their family/household members.

Ambulance services and the receiving facilities must be informed of the infectious status of the individual and the ongoing need to continue with infection control precautions.

Discharge arrangements may differ between countries as discharge to other areas is dependent on testing and/or isolation facilities available. Refer to country specific links on page 10.

In England, to ensure testing does not delay a timely discharge to a care home, patients who have tested negative should be re-tested for SARS-CoV-2 again 48 hours prior to discharge. All SARS-CoV-2 positive patients who are discharged within their 14 day self-isolation period will need to be discharged to a designated setting. The information from the test results, with any supporting care information, must be communicated and transferred to the relevant care home. No-one should be discharged from hospital directly to a care home without the involvement of the local authority.

11. Occupational health and staff deployment

Prompt recognition of cases of COVID-19 among healthcare staff is essential to limit the spread.

Health and social care staff with symptoms of COVID-19 or a positive COVID-19 test result should not come to work. Refer to country specific testing requirements.

As a general principle, healthcare staff who provide care in settings for suspected or confirmed patients/individuals should not care for other patients. However, this has to be a local decision based on local epidemiology and the configuration of the organisation.

A risk assessment is required for health and social care staff at high risk of complications from COVID-19 or clinically extremely vulnerable groups, including pregnant and Black, Asian and Minority Ethnic (BAME) staff. Guidance on carrying out risk assessments can be found by following the links to the country-specific IPC COVID-19 resources on page 10.

Employers should:

- discuss with employees who are clinically extremely vulnerable, including those who are pregnant and of Black, Asian and Minority Ethnic (BAME) origin, the need to be deployed away from areas used for the care of those who have, or are clinically suspected of having COVID-19; or, in primary care settings, clinics set up to manage people with COVID-19 symptoms
- 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.

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 staff illness, absence and vaccination against COVID-19.

12. 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.

Clinically vulnerable or extremely clinically vulnerable

People who are defined as **clinically extremely vulnerable** are at very high risk of severe illness from coronavirus. Those included in this category will be identified by:

- having one or more of conditions list, or
- a clinician or GP has added the individual to the Shielded Patient List

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). This is the most common route of infection transmission.

Contact transmission

Contact transmission is the most common route of transmission and 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 and the precautionary distance has been maintained at 2 metres in care settings.

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 surgical mask with integrated visor
- a full face visor or shield
- googles

Fluid-resistant (Type IIR) surgical face mask (FRSM)

A disposable fluid-resistant mask 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.

Long term health condition

This covers:

- chronic obstructive pulmonary disease, bronchitis, emphysema or asthma
- heart disease
- kidney disease
- liver disease
- stroke or a transient ischaemic attack (TIA)
- diabetes
- lowered immunity as a result of disease or medical treatment, such as steroid medication or cancer treatment
- a neurological condition, such as Parkinson's disease, motor neurone disease, multiple sclerosis (MS), cerebral palsy, or a learning disability
- any problem with the spleen, including sickle cell disease, or had spleen removed
- a BMI of 40 or above (obese)

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.

Severely immunosuppressed

Severely immunosuppressed is defined in the Green Book on Immunisation as:

- immunosuppression due to acute and chronic leukaemias and lymphoma (including Hodgkin's lymphoma)
- severe immunosuppression due to HIV/AIDS ([British HIV Association advice](#))

- cellular immune deficiencies (such as severe combined immunodeficiency, Wiskott-Aldrich syndrome, 22q11 deficiency/DiGeorge syndrome)
- being under follow up for a chronic lymphoproliferative disorder including haematological malignancies such as indolent lymphoma, chronic lymphoid leukaemia, myeloma and other plasma cell dyscrasias
- having received an allogenic (cells from a donor) stem cell transplant in the past 24 months and only then if they are demonstrated not to have ongoing immunosuppression or graft versus host disease (GVHD)
- having received an autologous (using their own stem cells) haematopoietic stem cell transplant in the past 24 months and only then if they are in remission
- those who are receiving, or have received in the past 6 months, immunosuppressive chemotherapy or radiotherapy for malignant disease or non-malignant disorders
- those who are receiving, or have received in the past 6 months, immunosuppressive therapy for a solid organ transplant (with exceptions, depending upon the type of transplant and the immune status of the patient)
- those who are receiving or have received in the past 12 months immunosuppressive biological therapy (such as monoclonal antibodies), unless otherwise directed by a specialist
- those who are receiving or have received in the past 3 months immunosuppressive therapy including:
 - adults and children on high-dose corticosteroids (>40mg prednisolone per day or 2mg/ kg/day in children under 20kg) for more than 1 week
 - adults and children on lower dose corticosteroids (>20mg prednisolone per day or 1mg/kg/day in children under 20kg) for more than 14 days
 - adults on non-biological oral immune modulating drugs, for example, methotrexate >25mg per week, azathioprine >3.0mg/kg/day or 6-mercaptopurine >1.5mg/kg/day
 - children on high doses of non-biological oral immune modulating drugs

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.

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.

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.