Infection Prevention and Control Measures for SARS-CoV-2 (COVID-19) in Health and Care Settings.

Acknowledgements:

Amended for use in Northern Ireland from the original document prepared by NHSEI IPC team, May 2022.

1. Table of Contents

2. Introduction

The purpose of this guidance is to provide disease specific infection prevention and control measures to prevent transmission of SARS-CoV-2 in health and care settings in Northern Ireland. This supersedes the previous UK IPC Guidance *Infection prevention and control for seasonal respiratory infections in health and care settings (including SARS-CoV-2) for winter 2021 to 2022.* The guidance should be read in conjunction with the Infection Prevention and Control Manual for Northern Ireland, which describes the application of Standard Infection Prevention and Control Precautions (SICPs) and Transmission Based Precautions (TBPs).

All health and care staff must be familiar with the principles of SICPs and TBPs for preventing the spread of infection in health and care settings (refer to local policies/procedures).

The elements of SICPs are:

- patient placement and assessment for infection risk (screening/triaging/testing)
- hand hygiene
- respiratory and cough hygiene
- Personal Protective Equipment (PPE)
- safe management of the care environment
- safe management of patient care equipment
- safe management of healthcare linen
- safe management of blood and body fluids
- safe disposal of waste (including sharps)
- occupational safety: prevention and exposure management

TBPs are the additional measures to SIPCs that may be required when caring for patients/clients/service users with known/suspected infection or colonisation, these are:

- assessment for infection risk patient and placement
- assessment for infection risk and placement of contacts
- safe management of patient care equipment in an isolation/cohort area
- safe management of the care environment
- PPE: including respiratory protective equipment (RPE)
- aerosol generating procedures (AGPs) (**see Appendix 1**)
- care of the deceased

2.1. Aim

The IPC principles in this document apply to health and care settings in Northern Ireland. This guidance does not replicate existing local protocols that have been developed to support organisations to operationalise other COVID-19 measures e.g. testing protocols.

2.2. Target Audience

This guidance is for Trusts and other care settings providing care or treatment for patients/individuals with suspected or known COVID-19 including acute, primary/community, independent healthcare or private sectors providers. Care Home guidance can be found here and domiciliary care guidance can be found here.

2.3. Scope

This guidance relates to infection prevention and control practice with a primary focus on health and care settings. This includes mental health and learning disabilities, primary care, maternity, and pediatrics (this list is not exhaustive).

This guidance provides disease specific interventions for COVID-19 and must be used in conjunction with the Infection Prevention and Control Manual for Northern Ireland. Employers should consider the specific conditions of each individual place of work and comply with all applicable legislation and regulations, including the Health and Safety at Work etc. Act 1974. This guidance does not supersede existing legislation or regulations across the UK.

3. SARS-CoV-2/COVID-19 General Information

3.1. Infectious period

Individuals with COVID-19 may be infectious from 2-3 days prior to symptom onset and typically up to 10 days following symptom onset. Severely immunocompromised individuals may remain infectious for a longer period of time, even in the absence of symptoms.

3.2. Symptoms of COVID-19

The clinical symptoms of COVID-19 are:

- A fever or high temperature (greater than 37.8°C)
- A new, continuous cough
- A loss or alteration to taste or smell
  (N.B. UKHSA currently finalising/updating list and will be updated here if any changes are made)

3.3. High risk groups/individuals

Individuals who are immunosuppressed or have certain medical conditions may be at higher risk of contracting COVID-19 or at higher risk of serious illness and complications. A clinical risk assessment is required for those individuals considered to be high risk including if protective isolation is required. Further information can be found here - https://www.nhs.uk/conditions/coronavirus-covid-19/people-at-higher-risk/who-is-at-high-risk-from-coronavirus/

Additionally, individuals who are unvaccinated or partially vaccinated are at higher risk of infection and serious illness.

3.4. High risk settings

High risk settings for ongoing transmission of COVID-19 are those that cannot mitigate the risk of transmission through the application of the hierarchy of controls (HOC) where patients or individuals with suspected/known COVID-19 are cared for.

The hierarchy of controls can be used to help implement effective controls and reduce the spread of respiratory pathogens such as SARS-CoV-2 in health and care settings, these are applied in order and are used to identify the appropriate controls. Safe systems of work outlined in the hierarchy of controls, including elimination, substitution, engineering, administrative controls and personal protective equipment (PPE)/ respiratory protective equipment (RPE), are an integral part of IPC measures. Hierarchy of controls | PHA Infection Control (niinfectioncontrolmanual.net)

Risk assessments must be carried out in all areas by a competent person with the skills, knowledge and experience to be able to recognise the hazards associated with respiratory infectious agents. The dynamic 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.

4. Triaging and Testing for COVID-19

4.1. Triaging/assessment of infection risk

Triaging within all healthcare facilities should continue and be undertaken to enable early recognition of patients with COVID-19, and other respiratory infectious agents such as influenza. Triage should be undertaken by clinical staff who are trained and competent in the application of clinical case definitions as soon as possible on arrival and used to inform patient placement.

Patients with respiratory infection symptoms should be assessed in a segregated area, ideally a single room, and away from other patients pending their test result.

4.2. Testing

Testing for patients and staff should be performed as per current guidance which can be found here.

5. Additional Infection Prevention and Control Measures for SARS-CoV-2 in health and care settings

The application of SICPs and TBPs as per the Infection Prevention and Control Manual for Northern Ireland should be followed. **Appendix 2** of this guidance

describes the personal protective equipment (PPE) required when providing direct care for suspected or confirmed SARS-CoV-2 patients.

As a minimum, contact and droplet precautions should be applied when caring for patients with known or suspected COVID-19. In specific circumstances airborne precautions should also be applied, for example, when performing AGPs, and in high risk settings or where an unacceptable risk of transmission remains following the application of the hierarchy of controls and dynamic risk assessment, it may be necessary to consider airborne precautions for patient care in specific situations.

5.1. Source control/Universal masking

Mask wearing is a form of source control that can be applied for staff, patients and visitors to prevent the transmission of SARS-CoV-2 and other respiratory infectious agents in health and care settings.

Patients with suspected or confirmed COVID-19 should be provided with a surgical facemask (Type II or Type IIR) to be worn in multi-bedded bays and communal areas if this can be tolerated.

Universal masking: the use of facemasks (type II or IIR) is continuing in patient facing clinical areas for staff, patients and visitors (face coverings).

Inpatients with **suspected or confirmed** COVID-19 should be provided with a facemask (Type II or Type IIR) on admission. This should be worn in multi-bedded bays and communal areas e.g. waiting areas for diagnostics, if this can be tolerated and is deemed safe for the patient.

Facemasks are not required to be worn by **suspected or confirmed** COVID-19 patients in single rooms unless a visitor enters, or the room door is required to remain open. Patients with **suspected or confirmed** COVID-19 transferring to another care area should wear a facemask (if tolerated) to minimise the dispersal of respiratory secretions and reduce environmental contamination. Patients should be provided with a new facemask at least daily or when soiled or damaged.

The requirement for patients to wear a facemask must never compromise their clinical care, such as when oxygen therapy is required or cause distress e.g. paediatric/mental health settings.

Non-infectious inpatients are not required to wear a facemask unless this is a personal preference.

Outpatients with **suspected or confirmed** COVID-19 should wear a facemask/covering, if tolerated, or offered one on arrival.

Extended use of surgical masks as source control for patients, staff and visitors beyond use for patients suspected or confirmed to have COVID-19 may be considered depending on prevalence of community infection with COVID-19 and may be a useful measure to bring in as part of winter preparedness.

5.2. Duration of precautions for hospitalised patients

TBPs should only be discontinued in consultation with clinicians (consider microbiology/IPC team if symptoms remain or patient is immunosuppressed) and should take into consideration the individual's test results (if available) and resolution of clinical symptoms.

5.2.1. Stepping down COVID-19 precautions if the patient is staying in hospital

For inpatients with COVID-19, precautions/isolation should continue up to 10 days after the onset of symptoms (or their first positive COVID-19 test if they do not have any symptoms), provided the clinical criteria below have been met.

Clinical criteria:

- clinical improvement with at least some respiratory recovery
- absence of fever (temperature greater than 37.8°C) for 48 hours without the use of medication
- no underlying severe immunosuppression

Where available, a locally decided testing protocol can be used to reduce the isolation period down from 10 days in patients who meet the clinical criteria above. These tests can be LFD or other rapid antigen detection tests. Patients should have two negative tests taken 24 hours apart as well as showing clinical improvement as above, before being moved out of isolation.

The residual risk of infection after a negative test on day 6 and 7 is similar to stepping down precautions without testing at day 10. Starting testing earlier than day 6 slightly increases this risk, however organisations may wish to balance this risk against other potential harms to patients.

If either of these test results is positive, the patient should continue their isolation until day 10. The likelihood of a positive test after 10 days of isolation is low. They do not need a further test before stepping down precautions provided they continue to meet the clinical improvement criteria above.

A cough or a loss of, or change in, normal sense of smell or taste (anosmia), may persist in some individuals for several weeks, and are not considered an indication of ongoing infection when other symptoms have resolved.

This guidance does not apply if there are any additional indications for ongoing isolation and transmission based precautions (for example MRSA carriage, *C.difficile* infection, diarrhoea).

For clinically suspected COVID-19 patients who have tested negative and whose condition is severe enough to require hospitalisation, the isolation period should be measured from the day of admission.

5.2.2. Severely immunocompromised patients

It is possible for severely immunocompromised patients to remain infectious for prolonged periods, even if they do not display any symptoms of COVID-19. The

isolation period for these patients whilst in hospital should be at least 14 days (also consider clinician advice).

In severely immunocompromised patients, resolution of symptoms should not be used as a marker of decreased infectiousness and these patients should be isolated in a single room until they return a negative PCR test. Staff must adhere to recommended IPC measures throughout the inpatient stay.

Severely immunocompromised patients can end their isolation after a single negative PCR test result taken no earlier than 14 days after the onset of symptoms (or their first positive COVID-19 test if they do not have any symptoms).

5.2.3. Outpatients/primary care

Patients who are known or suspected to be positive with a respiratory pathogen including COVID-19 and whose treatment cannot be deferred should receive care from services who are able to operate in a way which minimises the risk of spread of the virus to other patients. If required, advice can be sought from Infection Prevention and Control Teams.

6. Surveillance and monitoring/outbreak management and reporting in inpatient settings

Ongoing surveillance of SARS-CoV-2 must continue within inpatient healthcare settings and for hospital/organisation onset cases (staff and patients/individuals) must continue.

Positive cases of COVID-19 identified after admission who fit the criteria for a healthcare associated infection (HCAI) should trigger a case investigation. If two or more cases are linked in time and place, an outbreak investigation should be undertaken.

SARS-CoV-2/COVID-19 is a notifiable organism/disease.

7. IPC considerations for contacts of cases (inpatients)

Inpatients who are considered contacts of SARS-CoV-2 cases (not part of an outbreak) are no longer required to isolate if they are asymptomatic. Asymptomatic testing of inpatients may be used to monitor contacts and mitigate risks if the patient remains in hospital or other care setting.

If symptoms occur contacts should be tested and isolated or cohorted with other symptomatic contacts of SARS-CoV-2 cases. Testing guidance can be found here.

8. Occupational health, vaccination and IPC considerations for staff contacts of cases

Systems should remain in place to ensure that vaccination and testing policies are implemented as advised by occupational health/public health teams.

The vaccination status of staff may be considered when making staffing decisions for areas where **suspected or confirmed** COVID-19 patients/individuals are cared for.

A risk assessment is required for health and care staff who may be at high risk of complications from COVID-19.

All staff should be vigilant for any signs of respiratory infection and should not come to work if they have respiratory symptoms. They should seek advice from their IPC teams/occupational health department/GP or employer as per the local policy.

Symptomatic staff 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.

(https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-hss-md-17-2022_0.pdf)

Appendix 1: Aerosol generating procedures

Aerosol generating procedures (AGPs) are medical procedures that can result in the release of aerosols from the respiratory tract. The criteria for an AGP are a high risk of aerosol generation and increased risk of transmission (from patients with a known or suspected respiratory infection).

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

- *bronchoscopy (including awake tracheal intubation)
- *ear, nose, and throat (ENT) airway procedures that involve respiratory suctioning
- *upper gastro-intestinal endoscopy
- dental procedures (using high speed or high frequency devices, for example ultrasonic scalers/high speed drills)
- induction of sputum
- respiratory tract suctioning**
- surgery or post-mortem procedures (like high speed cutting / drilling) likely to produce aerosol from the respiratory tract (upper or lower) or sinuses.
- tracheostomy procedures (insertion or removal).

*where patients are having ‘conscious’ sedation (excluding anaesthetised patients with secured airway)

** 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; oral/pharyngeal suctioning is not an AGP.

Appendix 2: Personal Protective Equipment required while providing direct care (within 1 metre) for patients with suspected or confirmed COVID-19

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

If there is no direct contact with the patient or their environment, gloves, eye protection and aprons/gowns are not required.

Refer to the Infection Prevention and Control Manual for Northern Ireland for the correct use of PPE.

PPE required by transmission/exposure	Disposable gloves	Disposable/reusable fluid-resistant apron/gown	FRSM/RPE	Eye/face protection (goggle/visor)
Droplet PPE within 1 metre	Single use	Single use apron or fluid-resistant gown if risk of extensive spraying/splashing	Single use FRSM Type IIR for direct patient care (1)	Single use or reusable (1)
Airborne PPE (When undertaking or if AGPs are likely) (3) Or if an unacceptable risk of transmission remains following application of the hierarchy of controls (4)	Single use	Single use fluid-resistant gown	Single use FFP3 (2) or reusable respirator/powered respirator hood (RPE)	Single use or reusable (2)

(1) FRSM can be worn sessionally (includes eye/face protection) if providing care for cohorted patients. All other items of PPE (gloves/gown) must be changed between patients and/or after completing a procedure or task.

(2) RPE can be worn sessionally (includes eye/face protection) in high risk areas where AGPs are undertaken for cohorted patients (see footnote 4). All other items of PPE (gloves/gown) must be changed between patients and/or after completing a procedure or task.

(3) Consideration may need to be given to the application of airborne precautions where the number of cases of respiratory infections requiring AGPs increases and patients cannot be managed in single or isolation rooms.

(4) Where a risk assessment indicates it, RPE should be available to all relevant staff. The risk assessment should include evaluation of the ventilation in the area, operational capacity, and prevalence of infection/new SARS-CoV-2 variants of concern in the local area. The hierarchy of controls can be used to inform the risk assessment. Staff should be provided with training on correct use