HSC Public Health Agency

Infection Prevention and Control Measures for Respiratory illnesses.

03rd March 2023

Updated 03rd March 2023 to provide guidance on respiratory illnesses (including SARS-CoV-2/COVID-19).

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2. Introduction

The purpose of this guidance is to provide disease specific infection prevention and control measures to prevent transmission of respiratory illnesses (including SARS-CoV-2) in health and care settings in Northern Ireland and other settings where care is provided e.g. clients own home. This supersedes the previous Northern Ireland Guidance '*Infection Prevention and Control Measures for SARS-CoV-2 (COVID-19) in Health and Care Settings'.*

This guidance sets out current recommended measures when dealing with respiratory illnesses. It will be kept under constant review. Should the epidemiological situation change, for example if a new variant emerges, it may be updated and this will be communicated.

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 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 and provides guidance for those providing care in non-healthcare settings e.g. community facilities and clients own home. This guidance does not replace existing local protocols that have been developed to support organisations to operationalise other respiratory illness measures.

2.2. Target Audience

This guidance is for Trusts, other care settings, and for individuals providing care or treatment for patients/individuals in non-healthcare settings with suspected or known respiratory illnesses including acute, primary/community, independent healthcare or private sectors providers.

2.3. Scope

This guidance relates to infection prevention and control practice within all healthcare settings and non-healthcare settings where care is provided to individual clients. This includes mental health and learning disabilities, primary care, maternity, domiciliary care and pediatrics (this list is not exhaustive).

This guidance provides disease specific interventions for all respiratory illnesses 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 in Northern Ireland.

3. Respiratory illnesses: General Information

Several different viruses cause respiratory infections including influenza (A and B), human parainfluenza virus, rhinovirus, adenovirus, respiratory syncytial virus (RSV) and human coronavirus (e.g. SARS and MERCoV). Most respiratory viruses spread faster from person to person because they are spread by contact, droplet and airborne routes.

The continued transition to regional IPC guidance sees a return to service user placement based on an assessment of risk alongside application of routine Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs) in line with pre-pandemic IPC practices.

3.1. Infectious period

The Table of diseases in the Regional IPC manual outlines some of the common diseases/conditions and what precautions are required to prevent their transmission or spread.

3.2. High risk groups/individuals

Groups of individuals at increased risk of complications are those who are suffering from chronic respiratory illnesses, heart disease, chronic renal failure, diabetes, asplenia/splenic dysfunction and frail elderly individuals with comorbidities. A clinical risk assessment is required for those individuals considered to be high risk including if protective isolation is required.

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

3.3. High risk settings

The hierarchy of controls can be used to help implement effective controls and reduce the spread of respiratory pathogens in health and care, and non-healthcare 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.

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 Respiratory illnesses

4.1. Triaging/assessment of infection risk

Triaging within all healthcare facilities and non-healthcare facilities, e.g. client's own home, should continue and be undertaken to enable early recognition of patients with respiratory infectious agents such as influenza or COVID-19. Triage should be undertaken by 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 and what precautions should be implemented. Untrained staff should seek guidance from their managers.

5. Additional Infection Prevention and Control Measures for Respiratory illnesses

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 individuals suspected or confirmed respiratory illness (including SARS-CoV-2/COVID-19).

As a minimum, contact and droplet precautions should be applied when caring for patients with known or suspected respiratory illness. 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/client care in specific situations.

5.1. Source control/Mask wearing

Mask wearing is a form of source control that can be applied for staff, patients and visitors to prevent the transmission of respiratory infectious agents in health and care settings and in non-healthcare settings where care is being provided e.g. client's own home.

Patients/clients with suspected or confirmed respiratory illness should be provided with a surgical facemask (Type II or Type IIR).

Universal masking: the use of facemasks (type II or IIR) in patient facing clinical areas for staff, patients and visitors (face coverings) and in non-clinical areas (including client's own home) should be determined on a risk assessment. This risk assessment will depend on the presence of any respiratory illness.

Facemasks are not required to be worn by **suspected or confirmed** respiratory illness patients in single rooms unless a visitor enters, or the room door is required to remain open. Patients with **suspected or confirmed** respiratory illness 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** respiratory illness should wear a facemask/covering, if tolerated, or offered one on arrival.

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 TBP's if the patient is staying in hospital

For inpatients with respiratory illness, precautions/isolation should continue until the infectious period ends. Advice should be sought from the clinical team depending on what respiratory illness is suspected/confirmed.

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

5.2.2. Outpatients/primary care

Patients who are known or suspected to be positive with a respiratory pathogen 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 respiratory illnesses 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.

An outbreak of infection is defined as: an incident in which two/more people experiencing a similar illness are linked in time or place, a greater than expected incidence of infection compared to the usual background rate for the particular location, a single case for certain rare diseases or a suspected, anticipated or actual event involving microbial or chemical contamination of food/water.

The aim of an outbreak investigation is to prevent further transmission of infection.

Outbreak management can be found on the Regional IPC Manual.

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. It was the consensus view of the UK IPC cell (During the COVID-19 pandemic) that only open suctioning beyond the oro-pharynx is currently considered an AGP; oral/pharyngeal suctioning is not an AGP.

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Appendix 2: Personal Protective Equipment required while providing direct care (within 1 meter) for patients with suspected or confirmed respiratory illness

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 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.

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