Acute Hospital Infection Prevention and Control guidance on the prevention and management of cases and outbreaks of respiratory viral infections

V3.1 5.12.24

Version	Date	Changes from previous version	Drafted by
3.1	05.12.24	General revision and editorial updates. Inclusion of duration of transmission based precautions for patients receiving antiviral therapy for the treatment of influenza. Removal of vaccination status as a consideration for extension of transmission based precautions Rewording to risk assessment when identifying inpatient contacts Inclusion of link to guidance on the use of antiviral agents for the treatment and prophylaxis of Influenza Update to section on aerosol generating procedures	AMRIC
3	21.08.24	Significant restructuring of the document to support ease of use. General revision and editorial updates. Changes to guidance to move from specifically managing COVID-19 in a pandemic setting to widen the scope of this guidance, which is applicable to the management of acute respiratory viral infections in acute hospitals. Content throughout the document has been removed and direction has been provided to specific sections in the National Clinical Guidance No. 30 Infection Prevention and Control Removal of appendices on Preliminary Guidance on Facial Hair & Respiratory Protection, Admissions, transfers and discharges to and from RCFs, Respiratory/Cough Etiquette and Healthcare Risk Waste. Removal of sections for specific settings, Critical care, Operating theatres, Outpatient and day services, Radiology, Dialysis, Maternity Units, acute Mental Health facilities, Community Hospitals and Post-acute Rehabilitation facilities. Changes to content on Transfers to align with National Clinical Guidance No. 30 Infection Prevention and Control Revision of the section on testing Removal of duplicated content from various sections throughout the document Revision on section on identifying contacts, generic advice for respiratory viral infections provided Update to the section on Managing a cluster or outbreak of COVID-19 in an Acute Hospital Setting Removal of records of previous changes prior to December 2023.	AMRIC
2.20	11.12.23	Editorial changes Updated links to National Clinical Guideline No 30 (NCEC IPC Guidance) Removal of recommendation against cohorting of newly admitted / transferred asymptomatic patients Removal of link to guidance on interpretation of results with high CT values Inclusion of the link for posters on how to put on and take off PPE Addition of aerosol generating procedures(AGPs) list	AMRIC

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Introduction

This document should be used in association with the “National Clinical Guidance No. 30 Infection Prevention and Control”, which is available at the following link www.gov.ie/IPCclinicalguideline. This guidance replaces Acute Hospital Infection Prevention and Control Precautions for Possible or Confirmed COVID-19 in a Pandemic Setting V3 21.08.2024. The change to the previous guidance reflects that respiratory virus guidance rather than virus-specific guidance is helpful to acute facilities managing the risk from a range of common respiratory viral illnesses, such as COVID-19, influenza and RSV and others, which have similar routes of transmission, symptoms and similar prevention strategies for these respiratory viruses. A generic practical approach for respiratory viral infections is therefore adopted for this guidance.

A suite of bespoke AMRIC eLearning resources is available to provide additional educational content on topics contained within this guidance. A detailed list of all the AMRIC modules is available in the AMRIC Hub at www.HSeLanD.ie.

Background

Co-circulation of seasonal respiratory viruses including influenza virus, respiratory syncytial virus (RSV) with SARS-Cov-2 is likely to continue to be a feature of management of viral respiratory infections at certain times of the year. The clinical features caused by infection with respiratory viruses are often difficult to differentiate with the public health and infection prevention and control (IPC) management is very similar. For these reasons, this document is framed as general guidance for this group of infections. The term respiratory viral infection is used throughout this guidance document, which refers to common respiratory viruses such as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, respiratory syncytial virus (RSV) and other respiratory viruses which cause disease in humans.

The fundamental principles of basic infection prevention and control (IPC) remain key parts of the defences we have for protecting patients, our colleagues and ourselves from acquiring

these respiratory viral infections. Maintaining and strengthening appropriate infection prevention and control (IPC) practices mitigates the spread of respiratory virus in healthcare facilities, especially during peak periods of hospital admission. Timely implementation of multi-layered interventions is the key to preventing further strain on hospital personnel and other resources (ECDC).

Vaccination and booster vaccination campaigns for certain respiratory viral infections play a central role in managing the risk of spread of respiratory viral infections and severe disease in the acute hospital, as in other settings, while maintaining the delivery of timely and appropriate care to the patient.

High levels of community transmission and the co-circulation of these respiratory viruses, and others can increase pressure on healthcare systems. These co-circulating viruses pose a challenge for the management of large numbers of patients with respiratory viral infections and have a tendency to cause outbreaks in healthcare settings at certain times of the year (ECDC 2023).

Respiratory viral infections are acquired as a result of exposure to a person shedding infectious virus. It is generally accepted that the highest risk of transmission occurs at about the time an infected person develops symptoms. Infection can be transmitted from people with minimal symptoms, from people before they develop symptoms (pre-symptomatic transmission) and from people who never develop symptoms (asymptomatic transmission). However, transmission from symptomatic people is generally considered the greatest risk.

This document was informed by guidance UK Health Security Agency (UKHSA), European Centre for Disease Control (ECDC) and the World Health Organisation (WHO). Colleagues in the HPSC have also contributed to the development and review of this document.

Scope

This guidance applies to acute hospitals settings, including community hospitals, acute mental health services and to facilities providing inpatient acute rehabilitation services.

Whilst sections on specialist services including radiology, cancer services, maternity, dialysis, outpatients, etc. were included in previous versions of this guidance, a generic approach to managing respiratory viral infections can be applied in each of these settings. Refer to speciality guidelines/ local protocols, recognising local arrangements where applicable.

Residential care facilities (RCF) where residents are provided with overnight accommodation, including long-term nursing home, long-term mental health residences and shorter-term respite and convalescence care are advised to refer to the Public Health & Infection Prevention & Control Guidelines on Prevention and Management of Cases and Outbreaks of COVID-19, Influenza & other Respiratory Infections in Residential Care Facilities.

https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/residentialcarefacilities/

Infection prevention and control measures for respiratory viral infections

Maintaining and strengthening IPC practices can mitigate the spread of pathogens within healthcare facilities, especially during peak periods of community transmission of respiratory viral infections and resultant peaks in hospital admission. Timely implementation of multi-layered interventions is key to preventing further strain on hospital personnel and other resources. Hospital governance structures should ensure adherence to IPC measures and adequate availability of resources, such as personal protective equipment (PPE).

In-patient care

Standard precautions

Standard precautions (SP) and, in particular, meticulous hand and respiratory hygiene are important in preventing the transmission of respiratory viruses and should be applied when caring for all patients.

Due to the likelihood of respiratory virus transmission by people with few or no symptoms, healthcare facilities should ensure that physical distancing measures are applied by H&CW, patients and visitors, particularly in common areas during peak periods of community transmission of respiratory viruses.

During periods where there is high community transmission of respiratory viruses such as SARS-CoV-2, influenza, RSV or other identified respiratory viruses, it may be appropriate for face masks to be used in a broader sense than for PPE as part of Standard precautions or Transmission Based Precautions (TBP). To inform this, a dynamic risk assessment should be undertaken and kept under review as clinical and epidemiological indicators show increasing or decreasing levels of community circulation of respiratory viruses. This risk assessment should include the experience of transmission of respiratory viruses in that setting, including the impact on H&CW illness absence. It has been the experience in some healthcare settings in Ireland that the universal or targeted use of masks has had a beneficial impact by reducing for example healthcare H&CW absence with influenza. However, this experience is not shared across all healthcare settings, where in some cases masks were not found to have had any additional beneficial impact. This will be further addressed in the section on PPE.

The National Clinical Guidance No. 30 Infection Prevention and Control" www.gov.ie/IPCclinicalguideline contains recommendations and guidance on standard precautions.

Details on standard precautions are contained in the following sections:

- Volume 1, section 2, No. 2.1.5, page 20

- Volume 1, section 3, No. 3.1 page 37
- Volume 2, section 7. No. 7.2 Checklist of PPE typically required for common procedures performed on patients
- Volume 2, section 7, No.7.3 Use of standard and transmission-based precautions, Table 41.

Vaccination

The risk of severe influenza or severe COVID-19 disease is much lower in H&CW who have completed their annual influenza vaccination and primary vaccination course against COVID-19 and have had booster vaccination/s for which they are eligible.

It is important that acute hospital settings have systems in place to monitor the vaccination status of patients and to encourage vaccination including booster vaccination, to the greatest extent practical.

Protection afforded to Health and Care Worker (H&CW) by the influenza and COVID-19 vaccination, even with booster dosing, is not absolute; therefore, it remains essential to avoid intense exposure to the greatest extent possible. Vaccinated people who become infected are expected to be less infectious. However, vaccination does not eliminate the risk of transmission of influenza or SARS-CoV-2 from H&CW to patient in all settings. Therefore, H&CWs should not attend for work if they have respiratory viral symptoms, even after booster vaccination. H&CW should be aware that the protection afforded them by vaccination may be less when caring for people with infection with certain variants.

H&CW s, who have received vaccination, should continue to adhere to all IPC measures in this guideline in the same way as they did prior to vaccination to protect themselves and others. This advice will be reviewed regularly on the basis of emerging evidence and experience. H&CW s should avail of vaccinations as they become available in line with recommendations from National Immunisation Office.

Current recommendations for vaccination and booster vaccination are available in:

https://www.rcpi.ie/Healthcare-Leadership/NIAC/Immunisation-Guidelines-for-Ireland, refer to specific chapters:

- Chapter 5a COVID-19, https://rcpi.access.preservica.com/uncategorized/IO_b361b648-254a-4d42-97e2-ab2c92c3d67d/
- Chapter 11 Influenza https://rcpi.access.preservica.com/uncategorized/IO_932627c6-b0fe-4264-82c6-ce976da6d3b7/

NOTE: Hospital H&CW should promote vaccination and offer vaccination to patients and H&CW as appropriate. COVID-19 vaccination may be provided for long-stay patients or those identified in risk groups supported by community vaccination teams however, this is based on local arrangements and eligibility.

Influenza and COVID-19 vaccination are recommended at all stages of pregnancy, and vaccination of those who are pregnant or planning pregnancy is central to reducing the risk of severe disease and poor pregnancy outcomes. Pregnant workers, with specific health or work concerns should discuss those with their specialist in obstetrics and be referred to occupational health for assessment.

Further information regarding COVID-19 and pregnancy is available at:

https://assets.hse.ie/media/documents/Guidance_on_Fitness_for_Work_of_Immunocompromised_or_Pregnant_Healthcare_Worke_kp5eErs.pdf

Transmission-based precautions

See the following sections in the "National Clinical Guidance No.30 Infection Prevention and Control" www.gov.ie/IPCclinicalguideline.

Volume 1, section 3, No. 3.2.1, page 88 Application of transmission-based precautions and relevant sections on:

- Contact precautions: Volume 1, section 3, No. 3.2.2, page 91
- Droplet precautions: Volume 1, section 3, No. 3.2.3, page 95
- Airborne precautions: Volume 1, section 3, No. 3.2.4, page 98.

Transmission of respiratory viral infections in health care settings

The spread of respiratory viruses in the healthcare setting is a specific concern. Experience in Ireland and elsewhere indicates that transmission in hospitals and residential care facilities can occur readily when the virus is introduced from the community into the healthcare setting. Vaccination and booster vaccination has played a key part in helping to manage this risk of specific respiratory viral infections but does not eliminate it. Even with high levels of vaccination respiratory viruses can spread rapidly, particularly in crowded and poorly ventilated spaces, or if IPC precautions are suboptimal.

Transmission typically occurs when an unrecognised infectious person enters the facility. Control of entry to minimise risk of unrecognised introduction is therefore a key priority in preventing outbreaks. This requires a particular focus when rates of infection in the community served are high.

The transmission of respiratory viral infections occurs mainly through liquid respiratory particles. Respiratory particles are generated from the nose and mouth by actions such as breathing, coughing, sneezing, talking or laughing. The larger particles can be considered as droplets (larger) and the smaller as aerosols (smaller). The particle sizes form a continuum rather than two discrete categories. In practice the infection prevention and control issue is whether transmission through the air occurs primarily within a short range of space and time of the source (considered associated with droplets) or over a long range of space and time (considered associated with aerosols and airborne transmission).

Transmission to others may result from direct impact of infectious droplets on the mucosa of persons in proximity and through contact with surfaces contaminated with infectious respiratory droplets and subsequent transfer of infectious material to the mucous membranes (droplet transmission).

Transmission-based precautions should be applied for patients with confirmed respiratory viral infection, taking into consideration the microorganism, as well as factors that can affect transmissibility such as the time and proximity of contact, the need for high-risk procedures, the immune status of the patient and the clinical presentation. Transmission based precautions should also be considered for patients with probable respiratory viral infection (e.g. patients with typical clinical presentation or with an epidemiological link to a confirmed case).

Measures to decrease the risk of respiratory virus transmission in healthcare settings include ensuring appropriate ventilation in patient care areas; minimising the contact between patients; ensuring a distance of at least one metre between the beds and considering the use of physical barriers between patients. As part of winter preparedness in particular, but part of good planning and preparedness practice in general, each hospital should conduct a risk assessment to identify key risk factors including transmission risks, factors such as infrastructure, ventilation, previous experience and lessons learned from outbreaks, including areas which frequently experience respiratory viral infection outbreaks and measures to mitigate against these risks.

Duration of Transmission-based precautions in Acute Hospital

For hospitalised patients, the period of isolation and application of transmission-based precautions for COVID-19 and other respiratory viral infections such as influenza or RSV is currently a minimum of 5 days from onset of symptoms or date of positive result (whichever first). If the patient has no or minimal residual symptoms for two days, transmission based precautions can be discontinued not less than 5 days from date of symptom onset based on risk assessment. For patients receiving antiviral therapy for the treatment of influenza, the period of transmission based precautions is not less than 72hrs after antiviral treatment has begun.

Extension beyond 5 days, may be appropriate based on a hospital's experience and an assessment of local risks and is generally appropriate, for those who are immunosuppressed,

patients on high flow oxygen devices or similar, in critical care areas or following consultation with their clinical team.

Discontinuation of transmission-based precautions

The decision to lift transmission-based precautions is a clinical decision in each case and should not happen by default based solely on the number of days elapsed since diagnosis.

Where a patient is asymptomatic at the time of collection of a positive sample but subsequently develops respiratory viral infection symptoms the infectious period should be considered as not less than 5 days from the date when symptoms commenced rather than from the date of sampling. If no symptoms develop, the infectious period is counted as not less than 5 days from the date of detection.

Repeat testing for respiratory viral infection at the end of the intended isolation period is generally not required. However, it may be appropriate in particular settings or for particular patients following local risk assessment as outlined above and informed by local experience.

Safely managing patients who present with suspect or confirmed respiratory viral infection

Patient placement

On arrival to a healthcare setting all patients presenting for assessment should be promptly assessed for key clinical features of respiratory viral infections or other communicable infectious disease (CID). The use of clinical judgement is also critical, as some patients may present with atypical features. Appropriate transmission-based precautions must apply promptly to those identified as suspected or confirmed cases of respiratory viral infections.

Patients with respiratory viral symptoms or those with probable respiratory viral infection awaiting confirmatory test results and patients with a confirmed respiratory viral infection should be separated from patients without respiratory viral symptoms, as soon as possible; and ideally placed in a single room. They should wear a medical face mask when not alone in the room, if tolerated, and practice appropriate hand and respiratory hygiene. If possible, dedicated toilet facilities should be made available. There should be local systems in place to ensure a positive test result is promptly recognised and communicated to H&CWs, and that transmission-based precautions are immediately implemented by H&CW for care of any patient who is suspected or confirmed to have a respiratory viral infection. Signage to advise that the patient is being cared for using transmission based precautions should be used.

In the event that a patient presents with suspected respiratory viral infection, but there is not detection of key respiratory viruses from a properly-obtained specimen tested by a validated and sensitive method, transmission-based precautions should continue until such time as:

1. a plausible alternative pathogen or diagnosis that explains the presenting complaint is identified and any other pathogen identified does not require transmission based precautions
2. further investigation, such as obtaining a repeat specimen for testing and appropriate imaging make a diagnosis of respiratory virus infection very unlikely and
3. A senior clinical decision maker with experience in managing patients with respiratory virus infection has determined that the appropriate IPC precautions are no longer required.

Patients should be continuously reviewed throughout their inpatient stay for the development of respiratory viral symptoms.

In all healthcare settings, each infection prevention and control team (IPCT) should have a robust system in place for early detection of inpatients with a respiratory viral infection diagnosed after admission, as this may indicate hospital-acquisition and transmission.

H&CWs should not dismiss the significance of new respiratory viral infection symptoms on the

basis of a recent test result reported as SARS-CoV-2 or influenza not-detected/ negative, because a patient could still be in the incubation period at the time of testing or could acquire infection after admission (HA-COVID-19/ influenza).

H&CWs should not discount the possibility that symptoms represent influenza or SARS-CoV-2 infection on the basis that a patient is vaccinated.

Patients diagnosed with respiratory viral infections that have pandemic potential or are high impact (MERS-CoV, avian influenza) should be prioritised for isolation in a single room or, if available, an airborne-precaution isolation room.

If the number of patients with respiratory viral infections exceed the single-room capacity of the hospital/ facility/ ward, patients with the same laboratory confirmed viral infection can be placed in the same room (cohorting).

Patients with co-infections involving two (or more) respiratory viruses, immunocompromised patients, patients with pronounced symptoms and those requiring bedside procedures associated with high risk of transmission should be prioritised for placement in single rooms. Cohorting of patients with suspected respiratory viral infection awaiting diagnostic confirmation alongside other patients with confirmed or suspected infection should be avoided.

Management of patient contacts within the hospital setting

Patients who are identified as contacts of confirmed cases of influenza or COVID-19 while in hospital should be monitored for development of symptoms and where possible be separated from the general patient population.

When considering patient exposure in a multi-occupancy bay or ward, a risk assessment should be undertaken to examine variables such as proximity to index case, time spent in shared airspace, size of room, bed spacing, room ventilation and infrastructure, to determine whether a person should be managed as a contact.

Patients who are identified as close contacts of a confirmed case should be monitored for development of symptoms. At a minimum, and based on experience in Ireland, this period of observation should be 72 hours, but may be extended beyond this duration based on experience of conversion of contacts in that setting or patient cohort.

There is no requirement to isolate or cohort asymptomatic contacts of respiratory viral infections, however other considerations of risk assessment regarding patient placement should include immune status, occupancy of the ward or department, and need for other patients to be safely accommodated.

People who are contacts should not be cohorted in an area with patients with suspected or confirmed respiratory viral infections.

Antiviral prophylaxis may be appropriate for influenza contacts including older persons and risk assessing the patient population as per advice from Public Health or infection prevention and control teams (IPCT). Further information on antiviral prophylaxis is available here https://www.hpsc.ie/a-z/respiratory/influenza/seasonalinfluenza/guidance/

Patient placement and consideration of cohorting

Patients with the **same respiratory virus** for example COVID 19, influenza A, influenza B, may be considered for accommodation in a designated cohort area, with toilet facilities allocated for the use of those patients only. This may need to be considered when need for single room isolation exceeds available single occupancy room availability. See section below for details on cohorting.

Patients with **suspected respiratory viral infections** should not be cohorted with those who are confirmed positive.

Cohorting of suspected respiratory viral infection cases should be avoided if possible. The risk of transmission when cohorting suspected cases in multi-occupancy areas is much greater than that of cohorting confirmed positive patients together, as the suspect cohort is likely to include patients with and without the same respiratory viral infections. This is most

likely to occur in the assessment stage, where laboratory confirmation is pending.

If suspected cases of a respiratory viral infection are cohorted in multi-occupancy areas, the following measures may reduce risk of transmission:

1. An aerosol generating procedure (AGP) should not be undertaken in a multi-occupancy area accommodating patients with suspected respiratory viral infections, as there is an increased risk of cross-transmission to other patients

2. Patients with suspected respiratory viral infections requiring an AGP should be prioritised for negative pressure or single isolation rooms

3. Every effort should be made to minimise cross-transmission risk

4. Maintain as much physical distance as possible between beds or trolleys. If required, reduce the number of patients/ beds/ trolleys in the area to facilitate adequate physical distancing

5. The patient should wear a respirator or surgical face mask if tolerated, particularly if they are away from their bed space and whenever physical distance cannot be maintained

6. Patients should remain in any multi-occupancy area for as short a period of time as is possible

7. Use privacy curtains between the beds to minimise opportunities for close contact

8. There should be clear signage indicating an area is a designated cohort area to alert H&CW. Cohort areas may include an area within a ward or extend to an entire ward. Cohort areas may have multi-occupancy rooms or a series of single rooms

9. A designated cohort area should be separated from non-cohort areas by closed doors

10. Minimise movement of H&CW in cohort areas and ensure that the number of

H&CW entering the cohort area is kept to a minimum, for example during clinical ward rounds

11. It is recommended that H&CW assigned to work in a cohort area should be fully vaccinated and have had booster vaccine, where possible. This reduces the risk of infection in H&CW and reduces risks associated with H&CW movement during a shift if this becomes unavoidable

12. Recommend that movement of H&CW and activities in cohort areas should ideally be linear (from clean to dirty zone), in particular when caring for patients with pathogens with higher virulence; in such cases, H&CW should enter and exit the designated contaminated area through separate entrances, where possible. However, it is recognised that this may not always be feasible

13. The cohort area should not be used as a thoroughfare by other patients, visitors or H&CW, including patients being transferred, H&CW going for meal breaks, and H&CW and visitors entering and exiting the building.

Further details are available in "National Clinical Guidance No.30 Infection Prevention and Control" www.gov.ie/IPCclinicalguideline, Volume 1, section 2, No. 2.1.9, page 22, Strategies for implementing transmission-based precautions.

Patient Placement for Inpatient Care of patients with Respiratory viral infections

1. Where multiple patients are identified as having infection with the same respiratory viral infection, they should be accommodated in the same clinical area wherever possible, for example by identifying COVID-19 or influenza wards / units; this is most likely to be needed during periods of high community transmission of these viruses;

    a. The allocation of patients for available single rooms should be decided locally, based on safety, need, capacity for cohorting of patients with a confirmed respiratory viral infection, ward infrastructure and available resources

2. Patients with infectious influenza/ COVID-19 should be cared for by fully vaccinated H&CW (including booster vaccination) where possible

3. Signage must be placed at the entrance to the designated ward/ unit and at the entrance to the patient's isolation room or the designated cohort area, to advise H&CW/patients/visitors on entry and indicate transmission-based precautions as appropriate

4. Patients with a confirmed respiratory virus should be cared for in a single room with *en suite* facilities. If there is no *en suite* toilet, a designated commode should be used, with arrangements in place for safe removal of a bedpan/ urinal to an appropriate disposal point. Alternatively, arrange for safe access to a toilet close by that is assigned for the use of that patient only

5. In the event of a commode being used, the H&CW should leave the single room wearing appropriate PPE, transport the commode directly to the nearest sluice and remove PPE in the sluice after placing the contents directly into the bed pan washer or pulp disposal unit and perform hand hygiene as per WHO 5 moments

6. A second H&CW should be available to assist with opening and closing doors to the single room and sluice room

7. Avoid storing any unnecessary equipment or supplies in the patient's room or cohort area

8. Take time to explain to the patient the importance of the precautions that are in place to manage their care and advise them against leaving the room without H&CW guidance. Listen and respond to any concerns they may have, to ensure support and optimal adherence is achieved during their care.

Testing

Note that testing of asymptomatic patients including asymptomatic contacts is not recommended.

Testing of some asymptomatic patients may be appropriate, as determined by a local risk assessment.

Types of testing for respiratory viral infections

1. **Diagnostic testing:** This is testing for respiratory viral infections in patients where there is a clinical suspicion of respiratory viral infections, based on identified clinical features that suggest a diagnosis of respiratory viral infections (for example fever, shortness of breath, cough, or sudden loss of taste or smell). Refer to the HPSC website for the up-to-date case definition of key respiratory viral infections. When diagnostic testing is required, the patient should be cared for with contact and droplet precautions pending the test result. The result should be available as quickly as possible and in any case within 12 hours. In most cases, diagnostic testing should be for key respiratory pathogens, including SARS-CoV-2, influenza and RSV. Taking samples from a symptomatic patient to test for respiratory viral infection, including influenza, RSV, COVID-19, should be done by either nasopharyngeal or deep nasal / mid-turbinate sampling.

   Note: Nasopharyngeal sampling can be very uncomfortable for many patients and frequent sampling by this method is likely to be unacceptable to some patients. While nasopharyngeal samples are preferred for diagnostic testing, a deep nasal/ mid turbinate sample should generally be used if repeated testing is required, as repeated sampling by this method is more likely to be acceptable. Resources to support H&CW performing nasopharyngeal or deep nasal/ mid turbinate sampling are available at:

   https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/sampling/

2. **Contact testing:** Patient contacts should be monitored for symptoms, and only tested if symptoms develop. Testing of asymptomatic contacts is not generally necessary. If done, the approach should be based on a local risk assessment to include the patient's medical vulnerability. Further information on antiviral post-

exposure prophylaxis and testing recommendations are available here at https://www.hpsc.ie/a-z/respiratory/influenza/seasonalinfluenza/guidance/

Routine testing of H&CW contacts is not required however, it may be recommended by an Outbreak Control Team (OCT) in the context of managing an outbreak or otherwise based on IPC or Occupational Health risk assessment.

3. **Surveillance testing:** This is testing for respiratory viral infections in patients where there is no clinical suspicion and is not required. This type of testing was in place during the COVID-19 pandemic response; however, universal serial screening of patients is no longer conducted as routine surveillance for transmission of COVID-19.

Near patient testing or point-of-care testing

Near patient testing or point-of-care testing can simultaneously detect multiple respiratory pathogens, using multiplex RT-PCR testing for respiratory viruses, including testing for SARS-CoV-2, influenza, RSV. This type of testing can be useful particularly when rapid diagnosis is required for example in an emergency department (ED), where with appropriate application, the result can guide decision making in relation to appropriate patient placement and transmission based precautions during peaks of community transmission of respiratory viruses.

Additional testing of patients and H&CW may be recommended by IPC, Occupational Health or (OCT).

Personal Protective Equipment (PPE)

Good IPC practice including use of PPE is important but is not a substitute for vaccination.

As part of standard precautions, the use of appropriate PPE remains an important part of the controls within healthcare and requires a point of care risk assessment (PCRA) by the

H&CW regarding the symptoms of the patient, and the task they plan to undertake during the episode/s of care. Link to the PCRA poster is as follows https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/PCRAResistPoster.pdf
It is the responsibility of every H&CW to undertake a point of care risk assessment PRIOR to performing a clinical care task, as this will inform the level of IPC precautions needed. At a minimum, for interaction with patients with respiratory viral symptoms, healthcare workers should use a surgical mask or respirator mask. For longer episodes of care, for care within the bed space, or while performing higher risk procedures, a respirator mask and eye protection are recommended. In addition, respirator masks or surgical masks should be offered to patients in open or multi-bed healthcare settings who are exposed to other symptomatic patients.

For further information on PCRA and how to use a PCRA please see links

https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/

AND

https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/general/how-to-use-a-point-of-care-risk-assessment-pcra-for-infection-prevention-and-control-copy.pdf

Further detail on the use of PPE is contained in the “National Clinical Guidance No 30 Infection Prevention and Control (IPC)” on the following link: www.gov.ie/IPCclinicalguideline

Sections on the use of PPE for standard and transmission-based precautions are available in the following sections:

- Volume 2, Appendix 7, Section 7.3, page 250 Use of standard and transmission-based precautions, Page 250

- Volume 2, Appendix 7, Section 7.4, Table 44, page 252 Precautions for specific infections and conditions, including recommendations for the use of Personal Protective Equipment (PPE) for respiratory viral infections
- Specific recommendations on correctly fitted and fit checked respiratory protection (FFP2 respirator) is available in Volume 1, section 3, No. 3.2.4 pages 98-101, Airborne precautions, Recommendation 16.

Follow appropriate sequence and procedure for putting on and removing PPE as outlined in HSE training materials, see poster section in:

https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/posters/

Powered Air Purifying Respirators (PAPRs)

PAPRs enclose the entire head in a hood. Protection is provided against droplets (head is enclosed) and aerosols (air is pumped by a battery-powered pump though an appropriate filter into the hood). As the entire head is enclosed, PAPRs do not require a seal against the skin. The protection afforded is not reduced by facial hair. PAPRs are not generally used and are not widely available. There may be significant challenges in relation to use of PAPRs. They may not be easy to source. Costs are significant. H&CWs need to be trained in their use. They must be cleaned and decontaminated according to the manufacturer's instructions and there can be issues of user comfort.

Options for management

There is no one solution that will work for every facility and for every healthcare worker.

Note that vaccination is effective against infection transmitted by all routes and is an important part of managing this risk where applicable but vaccination does not eliminate the requirement for respiratory protection in many settings.

The options for healthcare workers with facial hair that prevents a surgical mask or respiratory mask from fitting flush against the skin are as follows:

1. Remove facial hair that interferes with the fit of the mask flush against the skin. This is the most practical way to ensure that H&CWs can benefit fully from protection provided by surgical masks and properly fitted respirator masks
2. For healthcare workers for whom removal of facial hair that interferes with the fit of the mask flush against the skin is not an acceptable option
    a. Surgical masks are likely to provide useful protection against droplet transmitted infection but this may be at a reduced level
    b. Respirator masks cannot be expected to work effectively
3. Risk management options include consider if they can be assigned duties that do not involve direct care for patients for whom aerosol precautions are required
4. Wear a PAPR when caring for patients for whom airborne precautions are required.

Note: This note relates only to use of respiratory protection related to infectious disease. Exposure to other hazardous substances is beyond the scope of this document. For an illustration of facial hairstyles that may impact on the function of respirator masks see https://blogs.cdc.gov/niosh-science-blog/2017/11/02/noshave/

Practical information

Intubation for mechanical ventilation should be planned ahead and emergency intubations should be avoided as much as possible. Performing all the necessary procedures, such as central venous catheter and arterial line insertions, during one session should be considered, to conserve PPE (ECDC).

Universal and targeted masking approaches

The “National Clinical Guidance No.30 Infection Prevention and Control” www.gov.ie/IPCclinicalguideline Volume 1, section 3 No. 3.1.5, page 80, Respiratory, hygiene and cough etiquette recommends

‘’Wearing a surgical mask (if tolerated) assists in reducing dissemination of respiratory virus in symptomatic patients and should be offered to all patients with symptoms of viral respiratory tract infection presenting in a healthcare setting. Use of a mask is in addition to and not instead of the requirement to maintain distance from others. In the context of a public health emergency or pandemic more general use of surgical masks by patients in the healthcare setting may be advised’’

PPE should generally only be used when required by the task being undertaken (avoid “ritual” use of PPE), be appropriate to the task being undertaken and be worn for a single procedure or episode of patient care where contamination with body substances is likely. Note: In the context of a pandemic or other exceptional event, continued use of certain items of PPE when seeing a number of patients with the same infectious disease in direct succession in one clinical area may be acceptable based on a risk assessment.

It has been the experience in some Irish healthcare settings, that target or universal use of face masks has proved beneficial in reducing impact of respiratory viruses on H&CW during periods of high community transmission of those viruses.

This has not been the experience across all healthcare settings, and as such a local, dynamic risk assessed approach is advised for each healthcare setting about whether and when to recommend that H&CW use masks outside of usual PPE or TBP.

For example, it may be appropriate that during periods of high community transmission of respiratory viruses, or significant localised outbreaks or future pandemics that decisions on more widespread or targeted masking may be justified as part of multifaceted response. Considerations should include whether any wider use of masks would apply to all H&CW, visitors and patients in in common areas of the hospital, patient rooms and other areas where patient care is provided (universal masking- ECDC). Alternatively, healthcare workers should wear a medical face mask during all routine patient care (targeted clinical masking - ECDC) when in contact with patients. Decisions on whether and when to implement universal or targeted clinical masking should take into account the expected benefit, as well as the burden on resources, H&CW, patients and visitors (ECDC).

Universal and targeted clinical masking, if recommended, should be discontinued at an agreed time point, for example, when the period of high community transmission is over.

High-risk medical procedures ('Aerosol-generating procedures')

Aerosol Generating Procedures

Aerosol generating procedures (AGPs) are defined as medical and patient care procedures that result in increased risk of airborne transmission of infection or infections that may normally be transmissible primarily by the droplet route. A list of AGPs is outlined below..

1. Where an AGP that is consistently recognised or accepted by many as associated with an increased risk of infection is necessary on a patient with suspected or confirmed respiratory viral infection, it should ideally be undertaken in a negative-pressure or neutral pressure room, using recommended airborne precautions
2. If a negative/neutral pressure room is not available, an AGP that is consistently recognised or accepted by many as associated with an increased risk of infection should be undertaken using a process and environment that minimises the exposure risk for H&CWs, patients, visitors and others.. For example, in a single room, with ventilation to the greatest degree practical and the door kept closed, away from other patients and H&CWs.
3. In the event that an AGP must be done out of clinical necessity in a multi occupancy area on a patient, exposure of other patients and H&CWs should be mitigated as much as possible. If the patient is found to be infectious following the procedure, exposed individuals should be risk assessed as potential contacts and managed accordingly.
4. Essential personnel only should be present in a room/ area where an AGP associated with increased risk of infection is being performed and ideally personnel should be fully vaccinated. H&CWs and visitors should leave the

patient's room during an AGP, unless it is necessary for them to remain to undertake the AGP or to assist with the patient's care during the AGP. Those present in the room during the AGP should follow IPC precautions including wearing recommended PPE for an AGP situation for the duration of the procedure, and for a period afterwards depending on the ventilation in the room (as an approximate guide for 20 minutes afterwards in rooms with mechanical ventilation and for up to one hour in a room with natural ventilation. Local risk assessment may alter these times).

5. It is important to consult with your local maintenance/estates teams to know the confirmed air changes in specialist treatment/procedure rooms. This will support local decision making in relation to where AGPs are performed and post AGP advice.

A number of authoritative national bodies have produced lists of Aerosol Generating Procedures/Aerosol Generating Medical Procedures.

There are some variations between the lists but the following generally feature consistently:

1. Endotracheal intubation and extubation
2. Cardio-pulmonary resuscitation (AGP risk is associated with airway management)
3. Open airway suctioning
4. Bronchoscopy (Diagnostic or Therapeutic)
5. Autopsy
6. Sputum induction (Diagnostic or Therapeutic)

Some procedures are cited by some agencies but are not cited by other agencies for example:

1. Non-invasive positive pressure ventilation for acute respiratory failure (CPAP, BiPAP)
2. High flow oxygen therapy

Cleaning an area after an AGP has been performed on a patient with suspected or confirmed respiratory viral infection

1. Clearance of infectious particles after an AGP is performed will depend on the form of mechanical/ natural ventilation and the air changes per hour (ACH) that can be achieved within the room
2. A single air change is estimated to remove 63% of airborne contaminants; after five air changes, less than 1% of airborne contamination remains
3. In an isolation room with mechanical ventilation (10-12 ACH), it is advisable to wait for 20 minutes after the patient leaves following an AGP before entering the room to clean. A respirator or surgical face mask is not required if the patient is no longer in the room
4. A room with no mechanical ventilation is likely to have fewer ACH (5-6). Therefore, it is advisable to leave the room for approximately one hour before cleaning after an AGP has been performed
5. Recommend minimal stock supplies in patient rooms that have been in close proximity to patients with suspected/confirmed respiratory viruses. This will support environmental aspects of PPE use and disposal and help to avoid unnecessary waste. Appropriately clean and disinfect supplies in covered and enclosed containers to avoid discarding unused medicines.

Visitors

Visitors should be made aware of basic infection prevention and control precautions, including hand hygiene and respiratory etiquette. During periods of high community transmission, visitors should follow the IPC advice for that setting at that time. This may include a recommendation to wear a medical face mask at certain points during the visit, or for the duration of the visit. Visitors who have symptoms of respiratory infection should not be allowed to visit. Hospitals should raise awareness of this approach in general, but in particular during periods of high community transmission. During periods of high community transmission or when there is a hospital outbreak of respiratory viral infection,

visiting may need to be restricted for a specific period of time, particularly in units or wards with high-risk patients, whilst still taking into account the well-being of patients who need some contact with family members and other exceptional circumstances such as terminally ill patients. Any restrictions implemented should be reviewed regularly to determine if they are still required (ECDC).

Visiting recommendations and access for nominated support partners, accompanying persons and visitors during periods of high transmission of respiratory viral infections

The following principles to support access for nominated support partners, accompanying persons and visitors are recommended:

1. Hospitals must strike a balance between the need to manage the risk of introduction of respiratory viral infections or other communicable infectious diseases by people accessing the hospital while ensuring that patients who need the support of a partner, a nominated support partner, a member of their family or a friend has reasonable access to that person
2. Reasonable access should be facilitated to the greatest degree practical for all patients. Access may be very limited for a period of time in the early stages of dealing with an outbreak but a total withdrawal of access is not appropriate. If limitations on access are considered necessary, this should be based on a risk assessment that is reviewed regularly in view of the prevailing public health circumstances in the population served by the hospital
3. The hospital should provide information on access that is clear, up to date and consistent across website, leaflets and when talking to H&CW and patients. This should make it clear how access is facilitated, any limitations that apply, the reasons for those limitations and the expected duration of limitations. Patients and others should be provided with a clearly defined pathway to appeal against limitations on access that they consider as being unreasonable.

4. Other than as a patient in need of essential care, no one (accompanying persons/ parents/ guardians/ carers) should access an acute hospital who has symptoms of a respiratory viral infection or other communicable infectious disease. Very rare exceptions to this may need to be considered in extraordinary circumstances that require an exception on compassionate grounds. In that case, careful risk assessment and planning is required.
5. Everyone who accesses an acute hospital must adhere to directions on essential infection prevention and control practices including maintaining physical distance (in so far as appropriate to their purpose), mask use, respiratory hygiene and cough etiquette and hand hygiene. Hospitals may be obliged to refuse access to a person who is unwilling or unable to comply with reasonable measures to protect themselves and all patients and H&CW or if the person has not complied with reasonable measures during previous access.

Further information is available in “National Clinical Guidance No 30 Infection Prevention and Control (IPC)” on the following link: www.gov.ie/IPCclinicalguideline, Volume 2, Table 43, Requirements for visitors to people on standard or transmission-based precautions

Refer to Appendix 1, Nominated Support Partner Access in Maternity Services for further details advice in this guidance document, for further detailed advice.

Staff

Occupational Health

This section focuses on healthcare workers and other healthcare facility H&CW, including occupational safety and health, staffing and how to limit H&CW exposure.

In the context of an outbreak

It is important that the IPCT and Occupational Health Department are in close contact to detect rapidly if there are H&CWs with a confirmed respiratory viral infection such as influenza or COVID-19, who have any epidemiological links to wards with suspected cross-transmission. H&CWs are advised to follow current Public Health advice, as for all community contacts in relation to all types of respiratory tract infections. The exception to this is in relation to pregnant or immunocompromised H&CW who should follow the advice in the link below:

https://assets.hse.ie/media/documents/Guidance_on_Fitness_for_Work_of_Immunocompromised_or_Pregnant_Healthcare_Worke_kp5eErs.pdf

Guidance in relation to occupational health COVID-19 for H&CW is available on:

https://healthservice.hse.ie/staff/covid-19-staff-support/occupational-health-covid-19-guidance/

Practical information to help limit exposure of H&CW to respiratory viral infections

1. Ensure there are adequate numbers of H&CWs to allow time to adhere to the necessary IPC precautions, in particular to adhere to hand hygiene and safe putting on and taking off of PPE

2. In general, one-to-one care is not essential for a single patient with suspected or

confirmed respiratory viral infections in a noncritical-care setting, provided there is adequate staffing to allow H&CW to safely apply appropriate IPC precautions

3. When there are high levels of circulating virus, leading to large numbers of infectious patients with similar respiratory viral infections in the hospital, cohorting patients with respiratory viral infections together on specific wards reduces the risk of exposure for other patients and H&CW. Consider accommodating infectious patients on specific cohort wards to the greatest extent practical, when there is a high number of patients diagnosed with the same respiratory viral infection (refer to the earlier section on cohorting). When cohorting patients with respiratory viral infections on specific wards is not practical, strict adherence to transmission-based precautions on a general ward manages the risk of exposure for other patients and H&CW. It is still appropriate to limit the number of wards/ units on which patients with respiratory viral infections are accommodated to the greatest extent practical. Placement elsewhere is sometimes essential to clinical care. When numbers of infectious patients decline, it becomes less practical to maintain cohort wards

4. Where practical, for the duration of each shift, assign designated H&CW(s) to care for patients with confirmed respiratory viral infections who may be accommodated in isolation room(s)/ cohort bay(s)/ areas of a ward. Designating H&CWs will minimise the likelihood of a H&CW caring for patients with and without respiratory viral infections during the same shift. This is likely to be lower risk when H&CW are fully vaccinated and have had booster vaccines for the relevant infection

5. In order to ensure appropriate care for the patient with a respiratory viral infection with the minimum of risk, H&CWs who enter the patient's room or cohort area should plan to deliver as much of the care required as possible at each entry. This is likely to be less important for H&CW who are fully vaccinated and have had booster vaccine for the relevant infection

6. Where face-to-face discussion facilitates decision making for patient care such meetings should take place with appropriate precautions. The meeting space selected should facilitate the anticipated number of attendees, so that physical

distancing and adequate ventilation can be achieved

7. During peak respiratory viral infection periods, rooms used for H&CW breaks or meetings should be assessed for maximum occupancy bearing in mind infrastructure, spacing and ventilation, as a standard. Promote opening of windows to improve ventilation. The maximum occupancy should be displayed on the door, so that all are made aware of when that capacity is reached or exceeded. The maximum number must not be exceeded

8. Surfaces in break, rest or meeting rooms should be kept free of clutter to facilitate regular cleaning, as a standard

9. During peak outbreaks of respiratory viral illness, confirm at the start of each shift, that all H&CW are well, and do not currently have symptoms of respiratory viral infections. In the event new symptoms develop during a shift, the H&CW should report immediately to the person-in-charge. This applies to vaccinated H&CW and unvaccinated H&CW.

Specific settings

Specific care settings should implement the principles of this guidance in line with standard precautions and transmission-based precautions described which apply in all care settings. There may be specific challenges related to the patient's overall care needs, however, the principles of managing patients with suspected or confirmed respiratory viral infections should be instituted as above, but may be subject to considerations based on local risk assessments. This applies across all settings including radiology, cancer, maternity, dialysis, acute mental health facilities/ units etc. Refer to speciality guidelines/ local protocols if available. Recommendations for visiting are available in the earlier section on visitors.

Managing admissions, transfers and discharges between acute hospitals and RCFs

The general principles are outlined in the "National Clinical Guidance No. 30 Infection

Prevention and Control (IPC)" on the following link: www.gov.ie/IPCclinicalguideline

Volume 1, Good practice point: 16, Clinical communication in infection prevention and control.

Note: testing of asymptomatic patients or residents regardless of vaccine status on transfer or admission, is not generally required. Testing of asymptomatic residents on admission/ transfer may remain appropriate based on local risk assessment for those on non-invasive respiratory support.

It is recognised that accepting admission or transfer of residents poses a risk of introducing COVID-19 or other respiratory viral infections. However, it is also recognised that there are other risks that arise from patients or residents being cared for in settings which are not optimal to meet their care needs. Patients or residents should be admitted or transferred to the most appropriate setting and risks of transmission of respiratory viruses should be acknowledged and managed. It is important to retain vigilance for onset of symptoms of respiratory viral infection and to take appropriate actions to prevent and control transmission.

People may have been identified as contacts in other settings, such as in hospitals. Such people may transfer to an LTRCF if they have no symptoms of respiratory viral infection.

Planning and communication

Public Health may recommend that a person who is transferring from a particular congregated healthcare setting (a hospital or RCF) where there is evidence of ongoing transmission of a respiratory viral infection (one or more open outbreaks) is monitored for respiratory viral symptoms.

Transfers

Internal and external transfer of patients with confirmed respiratory viral infections to another hospital should be avoided during the period when they are infectious, unless it is required for medical care.

Refer to “National Clinical Guidance No 30 Infection Prevention and Control (IPC)” on the following link: www.gov.ie/IPCclinicalguideline Volume 1, Good practice point: 16, Clinical communication in infection prevention and control for detail.

1. During the period of isolation, patients with confirmed respiratory viral infection should wear a respirator or surgical mask if tolerated when outside their room or designated cohort area
2. H&CWs in the receiving departments should be informed of the precautions required prior to the transfer of the patient (for example diagnostic departments, operating theatre)
3. Investigations should be scheduled so that patients are not waiting in communal areas
4. Cleaning and disinfection of the area along with equipment should be undertaken following completion of procedure.

External Transfer

1. Transfer of patients with confirmed respiratory viral infections to another hospital should be avoided during the period when they are infectious, unless it is required for medical care
2. If transfer is required, it is the responsibility of the transferring facility to inform in advance, the H&CW in the receiving facility and the ambulance personnel of the diagnosis, the date of symptom onset and the precautions required
3. Transfer of patients should not be refused or delayed, pending results of testing for respiratory viral testing
4. Testing of asymptomatic individuals, as a condition of transfer is not acceptable. Testing of asymptomatic individuals at the receiving facility is not generally required; however, it may be appropriate based on local risk assessment.

Transfer from primary care/ community settings using hospital transport systems

(e.g., Oncology Day Care, dialysis and other specialist areas)

During periods of high community transmission, it is recommended that patients who have symptoms of possible respiratory viral infections contact their usual care unit by telephone in advance of their appointment, rather than presenting themselves without making contact. If necessary, they may drive themselves to the unit, if they feel well enough, or should be driven in private transport by someone who has already had exposure and is willing to drive them. If they have a respirator mask or a surgical face mask this should be worn, if tolerated for transfer to the hospital. Where this is not possible, the unit should have alternative arrangements in place.

Patients who have no respiratory viral symptoms can travel by their usual means, with transport vehicles at full occupancy. Consideration should be given to mask use in the transport vehicle and mask use should be facilitated.

Patients who have been in close contact with someone who has suspected or confirmed respiratory viral infection should be instructed to advise the unit in advance of attending, independent of vaccine status for either seasonal flu or COVID-19.

Transfer of people with respiratory viral infections

1. Any resident transferred to a LTRCF before they have finished their period of transmission-based precautions in the hospital must complete their period of transmission-based precautions after transfer. If the receiving LTRCF has no other residents with a respiratory viral infection at the time, a risk assessment should be completed by the receiving LTRCF to ensure appropriate IPC measures can be maintained
2. Residents transferring to LTRCF with symptoms of or with confirmed respiratory viral infection can proceed to do so, provided that this has been communicated, they are clinically fit for the transfer, the facility risk assessment indicates there is capacity to care for them with appropriate isolation, and it is most appropriate place of care for the resident (e.g. ongoing need for palliative care etc.)
3. Residents normally cared for in the LTRCF, who are admitted to hospital while an

outbreak is ongoing in the LTRCF, may have their discharge to the same LTRCF facilitated if it is deemed to be clinically appropriate, and a risk assessment has been carried out which identifies that the resident can be isolated, and the facility has capacity to manage their care needs, and where that transfer represents the most appropriate place of care for the resident

4. In all instances the discharging hospital should provide the LTRCF with communication on clinical handover, as a standard, that encompasses IPC related patient information, including the following information on the arrival of the resident:
    a. The date and results of any respiratory viral infection tests (including dates of tests reported as not-detected)
    b. The date of onset of any symptoms
    c. Date of last documented fever while in hospital (particularly important where resident is being transferred to RCF before the period of transmission based precautions is complete)
    d. Details of any treatment or monitoring required

Transfers from LTRCF to an acute hospital

1. Influenza or COVID-19 positive status must not significantly delay transfer to an acute hospital, where it is deemed clinically appropriate. The national ambulance service (NAS) and the local receiving hospital must be informed by the LTRCF, in advance of transfer of any person with suspected or confirmed respiratory viral infection AND where there is a suspected or confirmed respiratory viral outbreak in the LTRCF
2. People with respiratory viral infections do not require to be hospitalised for the full period when transmission based precautions are required; transfer back to the LTRCF may proceed if the person is clinically fit for discharge, if infection was acquired in the LTRCF or if the LTRCF already has cases of the same respiratory viral infection, and the LTRCF has appropriate facilities and capacity for isolation and can support care

3. Additional information is available in relevant sections in the RCF guidance

Transfer/ discharge to home care services

1. When a patient is being discharged home to receive ongoing care in that setting, ensure that information relating to any symptoms and respiratory virus testing and vaccination status is communicated to the home care team in advance of their first attendance. This information should include information on influenza and COVID-19 vaccination status, dates and results of any symptoms and respiratory viral tests done while in hospital, residential care or other care setting. In particular, the home care team and transport staff will need to know whether the person is within the infectious period
2. Consider providing patient-held short note containing this information that can be reviewed by the home care team at each visit
   Generic IPC advice for H&CW in home care teams refer to the "National Clinical Guidance No 30 Infection Prevention and Control" available at: www.gov.ie/IPCclinicalguideline, Volume 1, Section 3, No. 3.4.1, page 117, Home care and other community-based settings. These generic principles can be applied in the context of respiratory viral infections.

Care of the Dying with suspected/ confirmed respiratory viral Infection

Refer to " National Clinical Guidance No 30 Infection Prevention and Control (IPC)" on the following link: www.gov.ie/IPCclinicalguideline Volume 2, Section 7.0, Care of the deceased Table 38 Application of transmission-based precautions to the deceased in the context of key infections at time of death.

Environmental measures

General principles

Cleaning and disinfection of all patient surrounds and frequently touched objects is

recommended as a standard. The care environment should be kept clean and clutter-free to facilitate cleaning. Consideration should be given as to how ventilation can be practically achieved in each setting. It is best to avoid the use of fans that re-circulate air.

All non-essential items should be removed. This is to prevent unnecessary waste of essential supplies, which may occur if unused items in an area become contaminated. Only the minimum amount of equipment and supplies essential to patient care each day should be stored within an isolation room, ante-room or cohort area. Consider increasing the frequency of topping-up stock to achieve this.

Patient Care Equipment/Instruments/Devices

Standard precautions concerning patient care equipment are very important to the care of patients with respiratory viral infections.

The use of dedicated (i.e. one for each patient), or if possible, disposable, medical equipment (e.g. blood pressure cuffs, stethoscopes and electronic thermometers), is recommended for patients with respiratory viral infections.

For advice on cleaning and disinfection of equipment, refer to “National Clinical Guidance No 30 Infection Prevention and Control (IPC)” on the following link: www.gov.ie/IPCclinicalguideline Volume 1, Section 3, No. 3.2.2 Contact precautions, Recommendation 13: page 94, Single use or patient dedicated equipment.

Ventilation

Experience with SARS-CoV-2 has emphasised that transmission of virus through the air is complex and that the categories of droplet and airborne should be seen more as describing general patterns of transmission through the air rather than as discrete phenomena. This is particularly the case with experience in hospitals in Ireland in the context of use of high flow oxygen devices, (an aerosol generating procedure associated with increased risk of

transmission). Although transmission of COVID-19 is typically via droplet pattern, a pattern of airborne type spread has been associated with closed, poorly ventilated spaces in which many people stay for long periods of time.

The European Centre for Disease Control (ECDC) provides a perspective on ventilation and air conditioning in the context of COVID-19 at the following link:

https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19

In the general clinical environment strict adherence to contact and droplet precautions remains very important in managing the risk of transmission in the absence of AGPs. However, given the experience of airborne patterns of transmission in some circumstances it is important that H&CW have access to appropriate PPE and are aware of the role of ventilation in prevention of transmission; ventilation should be maximised to the greatest extent that is practical consistent with comfort and without introducing other potentially greater risks.

There is evidence that novel air cleaning methods in healthcare environment reduces the burden of SARS-CoV-2 in the air in poorly ventilated spaces.

There remains little or no evidence that clinically demonstrates that this technology reduces the risk of acquiring infection in a clinical environment. In the absence of such evidence deployment of such systems is not generally recommended but this may be a consideration in certain settings based on risk assessment.

In this context, the following is recommended:

1. In clinical areas where there is established mechanical ventilation that has been appropriately commissioned, meets current standards for the healthcare environment and is well maintained, no modification of the operation of this system is required
2. In areas where there is no mechanical ventilation it is appropriate to increase natural ventilation in clinical areas by opening windows and doors in so far as practical and consistent with comfort and security of patients and H&CW; the goal is gentle air

circulation rather than strong air currents

3. In circumstances where entry of unfiltered external air is assessed as associated with a high risk for introduction of aspergillus spores into an environment where there are vulnerable patients, the exclusion of aspergillus spores takes priority over increasing natural ventilation with a view to reducing the risk of transmission of COVID-19
4. If exhaust fans are used they must be installed so that the air is released directly outdoors. The number and technical specification of exhaust fans must take account of the size of the room and the desired ventilation rate. Positioning the exhaust fan should be done so that it is not close to a ventilation air intake
5. Installation of whirlybirds (for example whirligigs, wind turbines) may be useful to increase air flow in settings where they can be deployed
6. When appropriately selected, deployed and maintained, single-space air cleaners with HEPA filters (either ceiling mounted or portable) can be effective in lowering concentrations of infectious aerosols in a single space; however they have not been shown to reduce the risk of patients or H&CW acquiring infection with COVID-19 in a healthcare setting
7. Some healthcare settings have found it helpful to use carbon dioxide (CO2) monitors, mobile or fixed, to identify areas of poor ventilation and / or to monitor ventilation. The deployment of monitors may help to identify specific areas where ventilation is poor and where particular efforts to increase ventilation are required.

Waste management

Refer to “National Clinical Guidance No. 30 Infection Prevention and Control (IPC)” on the following link: www.gov.ie/IPCclinicalguideline, Volume 1, section 3.1.7: Waste management.

Managing a cluster or outbreak of a respiratory viral infection in an Acute Hospital Setting

See the "National Clinical Guidance No.30 Infection Prevention and Control" www.gov.ie/IPCclinicalguideline Volume 1, section 3, No. 3.4.2 page 125, Outbreak investigation and management

General principles of outbreak management

Hospitals should review their plans for management of outbreaks of respiratory viral infectious diseases, to ensure that they address early detection and rapid response to respiratory viral infections and of other communicable infectious diseases.

The usual principles of detection and management of a cluster or outbreak of a transmissible pathogens in acute healthcare settings apply to respiratory viral infections, including the legal obligation to notify the Department of Public Health (https://www.hse.ie/eng/services/list/5/publichealth/publichealthdepts/dph/) in addition to the standing obligation for dual notification of all cases of respiratory viral infections (laboratory and clinical).

Refer to: https://www.hpsc.ie/notifiablediseases/notifyinginfectiousdiseases/ specific section on notifying outbreaks.

A local surveillance system should be implemented in each ward/ clinical area, whereby early detection of an admitted patient with new respiratory viral symptoms is part of the routine daily assessment and handovers.

IPC teams should ask about patients or H&CW with new respiratory viral symptoms or on their regular visits to wards. Where an inpatient develops new respiratory viral symptoms, apply the recommended IPC precautions and arrange for a diagnostic swab to be taken for respiratory viral infections.

Inform the IPCT that an inpatient is being investigated for a respiratory viral infection.

If test results from patients indicate there are respiratory virus acquisitions associated with a ward or unit, an outbreak should be declared and an outbreak control team (OCT) convened.

Managing a suspected case of a hospital-acquired respiratory viral infection in an inpatient

1. Apply transmission based precautions and transfer to a single room if not already in place.
2. If the patient is accommodated in a multi-occupancy room/ bay with other patients at the time that new symptoms develop, all patients in the room should be clinically evaluated, their vaccination status should be determined and they should be subject to ongoing close monitoring for new symptoms consistent with respiratory viral infections. If any additional patients have or develop new symptoms, apply transmission-based precautions and they should be tested
3. The multi-occupancy room or bay should be closed to new admissions while initial evaluation of the contact patients is underway
4. A risk assessment must be undertaken, to take into account duration of the contact of the patients in the multi-occupancy room prior to symptom onset, the dependency and case mix of the patients currently in the room, whether there is availability of single room(s) for patient(s) with symptoms awaiting test results on that ward, the anticipated turnaround time for receipt of a laboratory test result and the availability of staffing on the ward for day and night shifts. It may be prudent to avoid moving patients to another ward, unless clinical need dictates transfer to another department for escalation of care
5. If a patient who is a contact is fit for discharge home, they may be discharged. They should be informed of current public health guidance and advised that it is available on the following link:
   https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/Public%20Health%20Advice%20for%20the%20management%20of%20cases%20and

%20contacts%20of%20COVID-19.pdf .

If it is deemed appropriate for all of the patients to remain in the affected multi- occupancy room/ bay pending receipt of laboratory test result(s), a risk assessment is required to determine the appropriate IPC precautions and PPE for care of the patients in that room/ bay; this should include consideration of room size, bed spacing, room ventilation.

Any test results should be reviewed as soon as available to inform next steps.

If an inpatient is confirmed to have a respiratory viral infection, clinical care should be continued following the recommended IPC precautions and they should be moved to a single room(if not already)or if there are two or more patients with the same respiratory viral infection on the ward, they may be cohorted together.

Management of confirmed cases of hospital-acquired respiratory viral infection on a ward

1. Close the multi-bed area or ward to new admissions. If this is not considered possible or if at any point during the outbreak this is reconsidered because of other clinical risks a documented risk assessment should be performed
2. A risk assessment process is outlined at the following: https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/general/how-to-use-a-point-of-care-risk-assessment-pcra-for-infection-prevention-and-control-copy.pdf
3. The transfer of a confirmed case out of the ward should only be based on clinical need or to a designated cohort area of hospital
4. All contacts and their vaccination status to be identified. The general principles for identifying contacts for COVID-19, are any patient or H&CW who was exposed to the person within 48 hours prior to symptom onset or test date (if case is asymptomatic) may be a contact if the exposure exceeded 15 minutes and if they did not follow recommended IPC precautions including appropriate use of PPE.

The identification of contacts for other respiratory viral infections, for example influenza or RSV is less well defined. Local experience may indicate how best to identify contacts of cases, usually based on time and proximity of exposure, such as patients in adjacent bed spaces in multi-occupancy rooms or bays.

5. Patient contacts should be monitored for development of symptoms and advised to notify a H&CW member promptly if they develop symptoms. Testing is not routinely required for contacts, and recommendations for testing of contacts in response to a hospital-acquired case are outlined above (See Section on Contacts)
6. Samples from apparently isolated cases of hospital acquired respiratory viral infections such as COVID-19 can be retained and sites may wish to consider the use of Whole Genome Sequencing (WGS) to support high resolution genomic epidemiology for outbreak investigation. Support for sequencing of both community and hospital acquired SARS-CoV-2 infections is available from the National SARS-CoV-2 Whole Genome Sequencing (WGS) Surveillance Programme https://www.hpsc.ie/a-z/wholegenomesequencingsurveillanceprogramme/
7. The HPSC & National Virus Reference Laboratory (NVRL) advise of arrangements for influenza surveillance and sequencing in advance of, and during, the influenza season each year
8. Manage contacts of patients with confirmed respiratory viral infections, as previously outlined, (for example they should be accommodated together in this area to minimise multiple patient moves. It is important to monitor for new symptoms)
9. Contacts who develop symptoms should be clinically assessed, moved to a single occupancy room, and tested as appropriate (see previous section on patient placement)
10. Avoid cohorting confirmed patients with respiratory viral illnesses with patients who have not received confirmed respiratory viral diagnosis (see previous section on cohorting)
11. Wherever feasible, try to avoid moving inpatients between wards where transmission is suspected, unless patient movement is required to support clinical care.

Closing an outbreak

An outbreak can be closed following consultation with the Department of Public Health and/ or in consultation with the local IPC team, and after a period which is based on two incubation periods relevant to the identified respiratory virus, (for example after 10 days after the onset of symptoms in the last case (for COVID-19).

Although the outbreak remains open for 10 days it is generally appropriate for the ward/ unit to resume essentially normal operation after ~7 days from the onset of symptoms in the most recent case.

Influenza outbreaks can be declared over 8 days after the last positive case linked with the outbreak.

For outbreaks caused by other viral respiratory pathogens, closure of these outbreaks will be on a case-by-case risk assessment by the local IPC Team/ Public Health team.

H&CW should retain a higher level of vigilance for symptoms of respiratory viral infection until the outbreak is formally closed.

Public Health guidance in relation to identification of contacts is available https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/

Guidance in relation to outbreak management is available in the

"National Clinical Guidance No.30 Infection Prevention and Control" www.gov.ie/IPCclinicalguideline Volume 1 Section 3, No. 3.4.2, Outbreak investigation and management, page 136: Declaring that an outbreak is over.

Staff

Detection of a respiratory viral infection in a H&CW requires an assessment as to whether they form part of a hospital-associated chain of transmission, involving patients and

H&CWs or primarily involving H&CWs. Note that diagnosis of a respiratory viral infection in two H&CWs working in the same ward or unit is not of itself confirmation of an outbreak during periods of high levels of community transmission. This situation should be considered in the context of other information relating to infection associated with the ward or unit.

H&CW contacts should be advised to self-monitor for symptoms. Testing is not routinely required for H&CW contacts unless advised by Public Health or IPC as part of outbreak control measures.

Appendix 1: Nominated Support Partner Access in Maternity Services1

A nominated support partner plays a central part in supporting a person using maternity services. The support person also has a right to be present and to participate in the care process to the greatest practical degree. Limitations on access for nominated support partners should be the minimum required to manage infection prevention and control risks, must be clearly explained and should be applied with consideration for individual circumstances and needs.

Labour and delivery

On arrival in labour or for induction of labour a nominated support partner should be facilitated in accompanying the woman through the admission and initial assessment process and on the pathway.

When the woman reaches her bed space or room, the nominated support partner should have open access between 8 am and 9pm subject to occasional requests to step outside to facilitate specific clinical activities such as ward rounds and also housekeeping and meals.

As with all aspects of this guidance, it is important to apply the time cut offs with consideration for the needs of the patient and their nominated support partner in particular when people are anxious or distressed and the clinical situation is changing rapidly.

In circumstances where there is a need for a nominated support partner to be present between 9 pm and 8 am every effort should be made to ensure that the woman is accommodated in a single room, both to provide privacy and to facilitate 24-hour access for a nominated support partner. This may arise because delivery is anticipated or because the woman has a specific need for the support of her partner for other reasons.

[1] Nominated Support Partner - For the purpose of this guidance, a nominated support partner is the person nominated by a woman accessing maternity services to accompany her to provide support and to act as an advocate as appropriate. Hospitals should apply a similar model of nominated support partner with levels of access as outlined above for other groups of patients who are likely to experience frequent and prolonged hospitalisation for life threatening illness.

The risks of respiratory virus infection in general or specific to COVID-19 do not differ materially between vaginal delivery and delivery by Caesarean Section therefore concern about these infections do not require that a partner be excluded from attending a delivery by Caesarean Section if attendance would otherwise be appropriate.

When a woman who was planning a home birth transfers to hospital care and is admitted to a single patient room, access for the home birth midwife (Self Employed Community Midwife/ SECM), in addition to her nominated support partner, should be facilitated on the same basis as applied in the hospital prior to the pandemic. As with hospital H&CW, the home birth midwife/ SECM should be vaccinated, including booster and not be subject to any requirement to stay at home.

Access for an additional person, other than a home birth midwife/ SECM, including a person in the role of a doula, should reflect the hospital practice prior to the pandemic subject to the requirement for vaccination including booster, and the person should not be subject to any requirement for self-isolation.

Parents should generally be facilitated in visiting an infant who is in the neonatal intensive care unit (NICU)/ neonatal care unit with due regard for the need to manage the risk to all infants in the NICU. Managing access may be necessary in NICU setting where there are many infants in an open area and space is very limited.

As in all other hospital services, in circumstances where a woman has a long length of stay, the hospital should provide reasonable access for her children to visit her.

Antenatal Care;

The goal of hospitals should be to provide unrestricted access for nominated support partners to antenatal care as soon as this is safe to do so. To the greatest extent practical, a distance of 1m should be maintained between patients/ couples in waiting areas and at any rate, patients/ couples should have sufficient space to avoid direct contact. Maintaining reasonable distance may require staggered scheduling of in hospital appointments. Limitations on space in waiting areas in many maternity services mean that it is very helpful if those who feel able to attend unaccompanied can do so. Where hospitals are otherwise

unable to maintain reasonable distance (of about 1m) between couples, limitations on access for nominated support partners are still necessary at this time.

When access of nominated support partners must be restricted to maintain reasonable distance between couples a nominated support partner should nevertheless be welcome to attend at the following:

1. 12-week and 20-week scans
2. Early pregnancy assessment unit attendances
3. Unscheduled attendance including attendance at emergency services
4. First visit for first pregnancies
5. Other antenatal appointments or attendances if there is reason to anticipate that the attendance is likely to be associated with particular stress or to involve communication of particular emotional significance.

It is important to take a person-centred approach to recognising contexts in which the presence of a nominated support person is required. Hospitals should put in place an arrangement (for example an email address or telephone number) whereby a woman who feels a specific need to be accompanied at an antenatal visit can contact the hospital in advance of a scheduled attendance to request that a nominated support partner be facilitated in accompanying the woman at that visit. Such requests should generally be facilitated.

Any limitations on nominated support partners in excess of those outlined above should be based on a documented risk assessment, that is reviewed regularly and that is readily available to women and their partners (for example on the hospital website). Such risk assessments may consider if there is an ongoing outbreak of a respiratory viral infection in the facility, the infrastructure, staffing levels, the current level of cases in the community and the potential adverse impact of limitations on access on patients, infants and their families. A template for such risk assessment is available.

Appendix 2: Useful resources and References

Useful resources

For latest information from European Centre for Disease Prevention:

- Influenza: https://www.ecdc.europa.eu/en/seasonal-influenza/prevention-and-control
- COVID-19: https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/covid-19/prevention-and-control-covid-19

For latest information from the World Health Organisation:

- https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC_Masks-Health_Workers-Omicron_variant-2021.1

References

European Centre for Disease Prevention and Control (ECDC) Considerations for infection prevention and control practices in relation to respiratory viral infections in healthcare settings, 2023.