Acute Hospital Infection Prevention and Control Precautions for Possible or Confirmed COVID-19 in a Pandemic Setting

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Note: If you have any queries on this guidance please contact the AMRIC team at hcai.amrteam@hse.ie

	Date	Changes from previous version	Drafted by
2.15	22.09.2022	Modification of recommendation on testing of asymptomatic residents on transfer or admission to LTRCF, such that this is generally not required Modification of recommendation on testing of asymptomatic patients on non-invasive respiratory support or within ward or critical care areas such that this is based on local risk assessment, including consideration of ward/ unit layout. Modification of recommendation on testing of asymptomatic children and accompanying adults is not required unless specific assessment that this is necessary. Modification of recommendation on management of contacts identified in hospital, so as to retain focus on monitoring for symptoms unless in particular risk group or based on local risk assessment; if testing is assessed as necessary, to be at intervals informed by local data or at days 0, 5 and 10. General alignment with revised public health approach to management of contacts. Inclusion of recommendation that healthcare workers should avail of additional booster vaccinations as these become available and as recommended by National Immunisations Office. Updates to section on oncology, simplifying recommendation for patients who may be identified as household contacts. Updates to section on haemodialysis, simplifying recommendations based on presence or absence of symptoms, transport, satellite units. Removal of recommendation on testing of asymptomatic people ahead of admission, transfer and restriction of movement of asymptomatic residents, or where there is no clinical suspicion of COVID19 in the context of Community Hospitals and Post-Acute Rehabilitation Facilities Revision of appendix 2 to remove recommendation on testing of asymptomatic people ahead of admission, transfer and discharge to and from RCF. Recommendation to conduct a point of care risk assessment (PCRA) prior to performing a clinical care task, to inform the level of IPC precautions needed including the choice of appropriate PPE. Addition of point of care risk assessment (Appendix 6)	AMRIC

	Date	Changes from previous version	Drafted by
		Addition of How to use a point of care risk assessment (Appendix 7)	
2.14	31.06.2022	Inclusion of the principles to support access and visiting to Acute Hospitals Addition of Appendix 5 Nominated Support Partner Access in Maternity Services Deletion of records of changes in previous versions prior to 2.9	AMRIC
2.13	02.06.2022	Removal of requirement for use of FFP2 respirator masks for all care. Recommendation that FFP2 respirator masks are used for care of patients with suspected or confirmed COVID-19. Healthcare workers should use surgical mask for care of those patients who are not suspected or confirmed of having COVID-19. Changes to Appendix I admission/transfers to LTRCF Deletion of records of changes in previous versions prior to 2.7	AMRIC
2.12	19.05.2022	Formal outbreak closure changed from 28 days to 14 days in line with public health advice Changes to testing on admission, to testing of contacts and to surveillance testing such that in general the focus is on testing of symptomatic patients, other than in those who are on high flow oxygen support, or other invasive or non-invasive respiratory support or who require admission to critical care areas Statement on safe viewing of deceased remains of a person who was infectious with COVID19 at time of death Clarification of close contact in hospital setting	AMRIC
2.11	07.03.2022	Removal of the requirement for streaming when COVID-19 risk can be managed otherwise (aligns with unscheduled care and scheduled care guidance) Change in guidance on testing for COVID-19 contacts and surveillance testing (aligns with acute hospital checklist) Text on result interpretation removed and link to updated guidance on interpretation provided	AMRIC
2.10	26.01.2022	Changes in requirements for surveillance testing with greater flexibility to adapt practice based on risk assessment Change to frequency of testing of in-patient contacts Change to minimum duration of transmission based precautions for cases in the acute hospital setting; Change to minimum period of transmission based precautions (10 days) for contacts in hospital settings Updates to reflect recent changes in general public health guidance on case and contact management; Statement that initiation of	AMRIC

	Date	Changes from previous version	Drafted by
		essential high flow oxygen or similar respiratory support should not be delayed because a single room is not available Removed reference to recording of temperatures on arrival for work Reference to resumption of essentially normal operation on a ward after an outbreak from 10 days after most recent case based on assessment of relative risk Testing of asymptomatic HCWs who are not contacts on an outbreak ward should be considered based on institutional experience Clarification that two or more cases of infection in healthcare workers working in the same ward or unit is not confirmation of an outbreak Revision of terminology on guidance for dialysis patients Expressly stated that a nominated support partner may accompany a woman with COVID-19 in labour when they are in an assigned delivery room	
2.9	23.12.2021	Specifies that vaccination service should be provided on at least 3 days each week Additional information on booster vaccination; Information on vaccine in pregnancy; Transmission based precautions are generally not required following incidental detection of most respiratory viruses (other than SARS-CoV-2 and Influenza A) in an asymptomatic adult; Update to information for patients who are being discharged while contacts Clarification re closure of multi-bed area or ward in context of a single cases of hospital acquired COVID-19 Updated information on testing requirements and restricted movement for patient contacts as per current public health requirements Updated information on healthcare worker contacts Additional guidance on testing for dialysis patients who are contacts if performance of self-testing is not confirmed Recommendation that respirator masks be used by all health care workers in patient facing role when caring for all patients Recommendation that respirator masks be provided to patients who are able to tolerate them Change to management of contacts attending dialysis	AMRIC

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Introduction

This document replaces the previously issued Acute *Hospital Infection Prevention and Control Precautions for Possible or Confirmed COVID-19 in a Pandemic Setting Version 2.14.*

This document should be used in association with the "Draft National Standards for Infection and Prevention Control (IPC) 2022" which is available at the following link https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

In the context of the continuing pandemic, the advent of effective vaccination is a major advance in reducing the harm associated with COVID-19. However, the fundamental principles of basic infection prevention and control (IPC) are still a key part of the defences we have for protecting patients, our colleagues and ourselves from acquiring this disease. Although transmission in hospital in the early months of 2021 was extremely difficult to control, the situation, while it remains challenging, has improved greatly. The emergence of the Omicron variant is an additional challenge. Vaccination and booster vaccination play a central role in limiting infection and severe disease associated with Omicron in the acute hospital as in other settings. Vaccination in association with other measures as outlined makes it possible to manage the risk of spread of COVID-19 while maintaining the delivery of timely and appropriate care to the patient.

This document was informed by guidance from the Department of Health and Social Care (DHSC), Public Health Wales (PHW), Public Health Agency (PHA) Northern Ireland, Health Protection Scotland (HPS) Public Health England (PHE), 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.

There is variation in detail between national guidance on IPC issued in different countries. Similarly, many specialist societies have issued recommendations, which differ in some details from national or international IPC guidelines. Although differences in detail are a focus of considerable debate and can create a very challenging environment for IPC practice, it is important to focus on the clear consensus on all the most critical aspects of IPC and to continue to work together to manage those areas of difference and to look to emerging evidence to resolve those differences.

Scope

This guidance applies to acute hospitals settings, including community hospitals, acute mental health services and to facilities providing inpatient acute rehabilitation services. It also applies to specialist in-patient palliative care services that have assessed the service they deliver as very similar to that provided in an acute hospital setting.

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 and Infection Prevention and Control Guidelines on the Prevention and Management of COVID-19 Cases and Outbreaks in Residential Care Facilities
https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/residentialcarefacilities/

COVID-19 (SARS-CoV-2)

The virus which causes COVID-19 infection is called SARS-CoV-2 and belongs to the broad family of viruses known as coronaviruses. Global efforts to further our understanding of this pathogen have been ongoing since it was first identified in the Wuhan province of China in December 2019. The emergence and spread of the Omicron variant of SARS-CoV-2, which on current evidence is more infectious that previous variants, represents the latest challenge in this ongoing pandemic. The Omicron variant represents a further increment in infectiousness of the virus and therefore is likely to increase the risk of long-range spread through the air.

Please see the HPSC website for the up-to-date case definition of COVID-19.

Transmission of COVID 19

The median incubation period is from five to six days for COVID-19 (range = 1 – 14 days). Individuals are usually considered most infectious to others around the time they develop symptoms. How infectious an individual is and how long they remain infectious is related to some degree to the severity and stage of illness and may be influenced by the immune function of the individual.

The transmission of COVID-19 occurs mainly through liquid respiratory particles. 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 to be associated with droplets) or over a long range of space and time (considered as associated with aerosols and airborne transmission).

Respiratory particles are generated from the nose and mouth by actions such as, breathing, coughing, sneezing, talking or laughing. 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).

The World Health Organisation (WHO) issued updated advice on December 22 2021 that states that "in light of the rapid spread of the Omicron variant of concern (1) (VOC) of SARS-CoV-2, the virus that causes coronavirus disease (COVID-19), the World Health Organization (WHO) recommends the following regarding the use of masks by health workers providing care to patients with suspected or confirmed COVID-19":

WHO Recommendations

*1) A **respirator** (FFP2, FFP3, NIOSH-approved N95, or equivalent or higher-level certified respirator) or a **medical mask** should be worn by health workers along with other personal protective equipment (PPE) – a gown, gloves and eye protection – before entering a room where there is a patient with suspected or confirmed COVID-19.*

Respirators should be worn in the following situations: in care settings where ventilation is known to be poor or cannot be assessed or the ventilation system is not properly maintained based on health workers' values and preferences and on their perception of what offers the highest protection possible to prevent SARS-CoV-2 infection. Note: this recommendation applies to any setting where care is provided to patients with suspected or confirmed COVID-19, including home care, long-term care facilities and community care settings.*

2) A respirator should always be worn along with other PPE (see above) by health workers performing aerosol-generating procedures (AGPs) and by health workers on duty in settings where AGPs are regularly performed on patients with suspected or confirmed COVID-19, such as intensive care units, semi-intensive care units or emergency departments. (Existing recommendation, with strength modified from conditional to strong, based on very low certainty evidence)

3) Appropriate mask fitting should always be ensured (for respirators through initial fit testing and seal check and for medical masks through methods to reduce air leakage around the mask) as should compliance with appropriate use of PPE and other precautions.

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

Recent experience in hospitals in Ireland also highlights particular concerns regarding spread of infection over longer distances from patients supported by high flow oxygen devices (which is a recognised AGP) in particular in multi-bed areas.

The emergence of the more infectious Omicron variant as the dominant variant in Ireland places further emphasis on use of respirator mask protection when caring for patients. Concern regarding the increased potential for longer range transmission of the Omicron variant is reflected by a recommendation that respirator masks should be used by all healthcare workers in settings

where they are caring for patients with suspected or confirmed COVID-19, and in settings where the infection prevention and control team advice indicates that there is a high risk that patients with unsuspected COVID-19 are likely to be present. In addition, respirator masks or surgical masks should be offered to patients in open or multi-bed healthcare settings who are exposed to others.

Transmission in the Healthcare Setting

The spread of COVID-19 in the healthcare setting is a specific concern. Experience in Ireland and elsewhere indicates that transmission in acute hospitals and other healthcare settings occurred very readily when the virus was introduced from the community into the hospital during the period before widespread vaccination. Even with the current high levels of vaccination of healthcare workers and patients there are continuing incidents of introduction and extensive spread of SARS-CoV-2 although experience is that morbidity and mortality associated with these outbreaks is much reduced compared to the pre-vaccination period. Transmission typically occurs when an unrecognised infectious person (patient, staff or visitor) enters the hospital. Control of entry to minimise risk of unrecognised introduction is therefore a key priority in preventing outbreaks. This requires a particular focus when the rate of infection in the community served is high.

Outbreaks of infection involving both patients and healthcare workers (HCW) were frequent in acute hospitals during the major community surge in COVID-19 in late 2020 and early 2021 and again during subsequent community surges. The control of spread in acute hospitals in this context was very challenging even with extensive measures in place. Vaccination has played a key part in helping to manage this risk but does not eliminate it. Booster vaccination is essential to maintain these gains.

The increases in hospital acquired cases in late 2020, early 2021 and early 2022 were related in part to the emergence of SARS-CoV-2 variants with higher transmissibility. These included the Alpha and Delta variants, and most recently, Omicron variants. Spread of infection from patients who are incubating infection on admission but who are asymptomatic and have undetectable virus on admission (hospital onset community acquired COVID-19) was identified as one source of hospital transmission. Undetected infection in patients on high flow oxygen devices for respiratory support is a specific concern even when the person on respiratory support is in a single room. Infectious healthcare workers or people accompanying or visiting patients who do not realise that they are infectious may also be a source of outbreaks. Where cases of COVID-19 are detected promptly and transmission-based IPC precautions, including appropriate use of personal protective equipment (PPE) are implemented fully, the risk of spread can be reduced. It is therefore important that acute hospital settings have systems in place to monitor the vaccination status of patients, to encourage vaccination including booster vaccination, to the greatest extent practical and to ensure that, to the

greatest extent possible, patients with COVID-19 are rapidly identified at presentation and after admission are cared for with appropriate transmission-based IPC precautions. A self-assessment checklist of measures that have been found useful in controlling and responding to hospital transmission of COVID-19 is here:
https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/Acute%20Hospital%20Checklist%20for%20COVID-19%20Control%20Measures.pdf

Particular care is required to ensure to the greatest extent possible that people on high-flow oxygen or similar respiratory support (including home CPAP or BiPAP) are accommodated in single rooms or the smallest available multi-bed area even if not suspected or confirmed to have COVID-19 infection. They must be monitored carefully for evidence of COVID-19 infection. Note however that non-availability of a single room should not result in delay in initiation of high flow oxygen or similar respiratory support when this is required for patient care.

Processes for identification of patients presenting with COVID-19 must take account of the experience that a significant number of patients do not have respiratory symptoms on presentation and some may not have any specific clinical features that point to a diagnosis of COVID-19.

Hospitals should review their plans for management of outbreaks of infectious disease, to ensure that they address early detection and rapid response to outbreaks of COVID-19.

Vaccination

Vaccination for COVID-19 began in Ireland in late December 2020. All frontline healthcare workers in the acute hospital sector have been offered vaccination and most are vaccinated. From November 2021, a booster vaccination programme began for all healthcare workers. The initial impact of primary vaccination was apparent in a dramatic reduction in the number of new diagnoses of COVID-19 in acute hospital healthcare workers since mid-January 2021. In the context of the Omicron variant, booster vaccination is critical to maintain protection of healthcare workers and the people that they care for. It is clear however that the protection afforded to healthcare workers by vaccination, even with booster dosing, is not absolute; therefore, it remains essential to avoid intense exposure to the greatest extent possible. There is growing evidence that vaccination reduces asymptomatic infection and reduces viral load in those who become infected after vaccination. Therefore, vaccinated people who become infected are expected to be less infectious. However, vaccination does not eliminate the risk of transmission of SARS-CoV-2 from healthcare worker to patient in all settings. Therefore, healthcare workers should not attend for work if they have symptoms of COVID-19 or other viral respiratory tract infection, even after booster vaccination. Healthcare workers, who have had booster 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. Healthcare workers should avail of additional booster vaccinations as they become available in line with recommendations from National Immunisation Office.

Note: All patients in the acute hospital system who have not had vaccination including booster and who are eligible for vaccination should be offered vaccine as soon as is practically possible after they are assessed as clinically well enough for vaccination. Hospitals should aim to provide vaccination on at least 3 days each week to ensure the interval between a patient being fit for vaccination and receiving vaccination is short.

Contacts within the hospital setting

An individual who has had face-to-face contact with a COVID-19 case within two metres for more than a total of 15 minutes over a 24-h period (even if not consecutive).

When considering exposure in a multi-occupancy bay or ward where an individual has been in an enclosed space with a case for longer than two hours, a risk assessment should be undertaken to examine other variables which may have increased or reduced infection risk, including size of room, ventilation, distance from the case, to determine whether a person should be managed as a contact.

Testing

Note that testing of **asymptomatic patients** is generally not required.
Testing of asymptomatic patients may remain appropriate for those on high flow oxygen support, other invasive or non-invasive respiratory support or who require admission to critical care areas. Such testing of asymptomatic patients should be based on a local risk assessment to include the ward/ critical care unit layout and availability of single rooms.
Testing of asymptomatic patients who require intubation for an elective procedure is generally not required.
Testing of some asymptomatic patients may be appropriate, following local risk assessment, including for example, patient medical vulnerability in combination with the ward setting and infrastructure (e.g. multi-occupancy rooms) to which the patient will be admitted.

It is useful to distinguish three categories of testing for COVID-19 with respect to people admitted to healthcare facilities:

1. **Diagnostic testing:** This is testing for COVID-19 in patients where there is a clinical suspicion of COVID-19, based on identified clinical features that suggest a diagnosis of COVID-19 (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 COVID-19. 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. **Testing for other respiratory pathogens, in particular influenza virus, should be requested at the same time when clinically relevant.**

2. **Contact testing:** applies to patients who are identified as contacts of COVID-19. Patient contacts should be monitored for symptoms and tested if these develop. Testing of asymptomatic contacts is not generally necessary, unless they are in a particular risk group, or for example if they are on high flow oxygen support, other invasive or non-invasive respiratory support or require admission to critical care areas. If testing is necessary, it should be done at intervals (this should be based on local data, or around days 0, 5 and 10) while they remain in hospital. Contacts should be tested if they develop symptoms while they remain inpatients. Testing of contacts who have had COVID-19 within the previous 3 months and of contacts who are not in at risk groups is not generally required. **Testing for other respiratory pathogens should not be performed on patients undergoing COVID-19 contact testing unless there is a specific clinical indication for additional testing.** Routine testing of staff contacts is not required but may be recommended by an OCT in the context of managing an outbreak or otherwise based on IPC or Occupational Health risk assessment. If there are local data informing testing of contacts at different intervals, this may be applied and the rationale documented.

3. **Surveillance testing:** This is testing for COVID-19 in patients where there is no clinical suspicion of COVID-19 and the person is not a contact. The purpose is to detect asymptomatic infection and thus to prevent onward transmission and hospital acquired infection as a consequence of exposure to asymptomatic infectious patients. Patients undergoing surveillance testing should generally be cared for with standard precautions plus use of a surgical mask, pending the test result. However, a person supported by high-flow oxygen devices should, whenever possible, be cared for in a single room with contact and droplet precautions while awaiting surveillance test results. **Testing for other respiratory pathogens should not be performed on patients undergoing COVID-19 surveillance testing unless there is a specific clinical indication for additional testing.** In some cases, testing for additional viral pathogens may be unavoidable because of the testing platform in use. In general, transmission based precautions are not essential in response to incidental detection of respiratory viruses other than SARS-CoV-2 and Influenza A in adults with no symptoms or viral respiratory tract infection. Exceptions may arise based on risk assessment.

While surveillance testing has proved useful at certain stages of pandemic response, in the current phase, the experience from acute settings is that widespread testing in this way is no longer generally useful in helping to interrupt transmission. In light of this experience and also the significantly reduced harm from the current predominant Omicron variant it is recommended that across acute settings, that widespread surveillance testing is not generally required and a more tailored approach adopted.

Surveillance Testing

Surveillance testing, where it is considered necessary, should be offered as soon as is practical after presentation and at the latest within 24 hours.

Surveillance testing is no longer required for all adult unscheduled patients who require overnight admission. Instead, surveillance testing should be focused on those patients who are on high flow oxygen support, or other invasive or non-invasive respiratory support or who require admission to critical care areas, if appropriate.

Testing of some asymptomatic patients may be appropriate, following local risk assessment, including for example, patient medical vulnerability in combination with the ward setting and infrastructure (e.g. multi-occupancy rooms) to which the patient will be admitted.

Testing in these patients should be performed at or as soon as possible after admission to identify infectious patients not recognised by clinical assessment (see note above re infection in the previous 3 months).

Surveillance testing is no longer generally required for adult unscheduled patients in multi-bed areas between day 3 and day 5 after admission. Instead, surveillance testing at around day 3 – 5 should be considered for those patients who are on high flow oxygen support, or other invasive or non-invasive respiratory support or who require admission to critical care areas. Further sequential testing, such as weekly testing, is generally not required.

Surveillance testing is no longer generally required for adult patients admitted overnight to undergo scheduled care, unless they are or are expected to be on high flow oxygen support, other invasive or non-invasive respiratory support or are likely to require admission to critical care areas. Testing should be performed within the 3 days before admission or as soon as possible after admission. Further sequential testing, such as weekly testing, is generally not required unless admitted to critical care areas.

Additional testing of patients and staff may be recommended by an Infection Prevention and Control, Occupational Health or an Outbreak Control Team.

Note that if a patient for admission had a test in the 3 days prior to admission this can be accepted as serving as the admission surveillance sample, if one is considered necessary.

Variation from the above requirements (additional testing or reduced testing) should be based on written institutional risk assessments that are reviewed regularly. Key elements in the risk assessment should include recent experience of the frequency of detection of infectious patients by surveillance testing, impact of detection of positive tests in non-infectious patients, current transmission in the population served and recent experience of spread of infection in that institution.

Surveillance testing of asymptomatic children requiring overnight accommodation for scheduled or unscheduled care and of children who do not require overnight accommodation but who are undergoing and AGP is not required unless specific assessment that this is necessary.
Testing of asymptomatic parents or guardians accompanying children and staying overnight is not required unless specific assessment that this is necessary.
The hospital should have a clear process for implementing testing of accompanying persons and for managing communication of results if testing is being undertaken.

Note that symptomatic parents/guardian/carer should not attend the hospital regardless of test results unless there are extraordinary circumstances that require an exception on compassionate grounds.

See also the HSE document "Service Continuity in a COVID-19 Environment; a Strategic Framework for Delivery". https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/covid19-updates.html

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 for contact and surveillance testing as frequent sampling by this method is more likely to be acceptable.

Note: Contact and droplet precautions should NOT be withdrawn solely on the basis of a test reported as SARS-CoV-2 "not -detected", as this result is not sufficient to exclude infection. The

continuing requirement for contact and droplet precautions should be reviewed, with appropriate IPC advice. In the context of clinical evidence of severe respiratory disease in the absence of an established alternative diagnosis, contact and droplet precautions should generally be continued.

Interpretation of results

Guidance on interpretation of results with high Ct values is available at the following link

1. https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/outbreakmanagementguidance/PCR%20weak%20results%20guidance.pdf

COVID-19 and Pregnancy

Recent evidence suggests that some pregnant women are more likely to develop severe disease compared with non-pregnant women and that COVID-19 may be associated with placentitis and a risk of still-birth even in those with otherwise mild illness. Vaccination is recommended at all stages of pregnancy and vaccination of those who are pregnant or planning pregnancy is central to reducing this risk.

COVID-19 and Immunity after Recovery

There is still limited experience with immunity after recovery and therefore caution is required in interpretation. In general, patients who have recovered from COVID-19 have evidence of an immune response that provides significant protection. People with COVID-19 diagnosed in the last 3 months are not required to restrict movement or self-test for a period of at least 3 months (subject to review). Healthcare workers who have recovered from COVID-19 in the previous 3 months should continue to follow the same IPC precautions as all other HCWs when in contact with patients.

Currently, antibody testing is not recommended for routine use to assess immunity to infection.

Survival in the Environment

Survival of SARS-CoV-2 on environmental surfaces is dependent on the surface type and the environmental conditions. One experimental study using a SARS-CoV-2 strain reported viability on plastic for up to 72 hours, for 48 hours on stainless steel and up to eight hours on copper. However, the levels of virus declined very quickly over the time period. Experience through the pandemic does not support persistence of virus on surfaces for extended periods as an important source of transmission.

Staff

This section focuses on staffing and how to limit staff exposure. It provides advice on staff movement across facilities and provides guidance on those external contractors who may be present in the acute setting.

Limiting Exposure of Staff to COVID-19

1. Minimise the number of HCWs caring for patients with possible or confirmed COVID-19.
2. Note that the risk of severe COVID-19 disease is much lower in staff who have completed their primary vaccination course and have had booster vaccination
3. A person has completed their primary vaccination course as follows:
    a. 15 days after the second dose of AstraZeneca (Vaxzevria);
    b. 7 days after the second Pfizer-BioNTech dose (Comirnaty);
    c. 14 days after the second Moderna dose (Spikevax);
    d. 14 days after Janssen (one dose vaccination course);

    If other vaccines become available, the requirement for vaccination will be as advised by HSE.ie. Booster vaccination is recommended 4 months after completion of the primary vaccination course unless there is an intervening COVID-19 infection. If there has been an intervening COVID-19 infection booster is recommended 4 months after the intervening infection.
4. Ensure there are adequate numbers of HCWs to allow them time to adhere to the necessary IPC precautions, in particular to adhere to hand hygiene and safe donning and doffing of PPE;
5. In general, one-to-one care is not essential for a single patient with suspected or confirmed COVID-19 in a noncritical-care setting, provided there is adequate staffing to allow staff to safely apply contact and droplet precautions, with addition of airborne precautions when aerosol-generating procedures (AGP) are performed;
6. Cohorting patients with infectious COVID-19 together on specific wards reduces the risk of exposure for other patients and staff. This is most important and most practical when there is a large number of infectious patients in hospital and if there is evidence of patient to patient spread. As numbers of infectious patients decline it becomes less practical to maintain cohort wards. When specific cohort wards are available infectious patients should be accommodated on cohort wards to the greatest extent practical. However, placement elsewhere is sometimes essential to clinical care. When cohorting of infectious COVID-19 patients 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 staff. It is still appropriate to limit the number of wards/units on which COVID-19 patients are accommodated to the greatest extent practical;
7. Where practical, for the duration of each shift, assign designated HCW(s) to care for patients

with confirmed COVID-19 who may be accommodated in isolation room(s)/cohort bay(s)/areas of a ward. Designating HCW will minimise the likelihood of a HCW caring for patients with COVID-19 and without COVID-19 during the same shift. This is likely to be lower risk when staff are fully vaccinated and have had booster vaccines;

8. In order to ensure appropriate care for the patient with COVID-19 with the minimum of risk, HCWs 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 staff who are fully vaccinated and have had booster vaccine;
9. Social interaction between staff in the healthcare setting should comply with all relevant public health and IPC guidance;
10. 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 observed;
11. Rooms used for staff breaks or meetings should be assessed for maximum occupancy bearing in mind requirements for physical distancing and consideration as to how ventilation can be improved. The maximum occupancy should be displayed on the door, so that all are made aware of when that capacity is reached or exceeded;
12. The maximum number must not be exceeded, even if all present are vaccinated including booster and/or wearing masks. Surfaces in break, rest or meeting rooms should be kept free of clutter to facilitate regular cleaning;

    At the start of each shift, all staff should be asked to confirm that they do not currently have symptoms of viral respiratory infection, such as fever, cough, shortness-of-breath, recent loss of taste or smell or myalgia. In the event new symptoms develop during a shift, the HCW should report immediately to the person-in-charge. This applies to vaccinated staff and unvaccinated staff.

Guidance in relation to occupational health issues for HCW is available on www.hpsc.ie

Staff movement across facilities

1. The movement of staff between facilities should be minimised. It is recognised that some staff have to work across multiple sites to ensure service provision;
2. The risk of staff movement between facilities is expected to be lower if those staff who have to move across sites are fully vaccinated and have had booster vaccine;
3. All staff should ensure that they only attend work if they are symptom-free and are not required to absent themselves for other reasons. **This continues to apply to staff who are vaccinated including booster vaccine**;
4. All staff should adhere to standard precautions, including hand hygiene, physical distancing, and all current guidance on IPC practice;

5. HCWs and other essential service providers who are required to attend at healthcare facilities to provide essential services or assessments, for example public health nurse assessments, assessments for outpatient parenteral antimicrobial therapy (OPAT), staff involved in discharge planning to LTRCFs or legal representatives should not be regarded as visitors in the general sense and should be facilitated. See guidance for visitors, referred to previously.

Staff Uniforms/Clothing

See "Draft National Standards for Infection and Prevention Control (IPC) 2022.
Staff should avoid bringing personal items, including mobile phones into cohort/isolation areas.
https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

External Contractors & Product Representatives

1. Guidance on visitation to acute healthcare settings should apply to attendance by pharmaceutical and product representatives to clinical areas. These are not essential or important service providers and as such, should not be present in patient care areas while there are high levels of circulating virus;

2. At low levels of community transmission, attendance in patient care areas should be by prior invitation from a senior staff member and in line with any local institutional policy for attendance of company representatives;

3. Product or technical representatives who attend to support the delivery of essential healthcare to a patient or group of patients may be viewed as essential service providers and as such could be facilitated to attend as needed, to deliver that healthcare (for example technical experts required for fitting of prostheses);

4. All hospitals should have pathways in place to ensure that services provided by external contractors, including deliveries of supplies can be provided in a safe manner, with minimal risk to the contractors, staff and patients. This requires, amongst other things, that contractors ensure that their staff who may enter clinical areas are vaccinated including booster if eligible and if not fully vaccinated that they are subject to a risk-assessment process equivalent to that which the HSE applies to HSE staff;

5. All pharmaceutical and product representatives and staff of external contractors attending clinical areas should be vaccinated including booster

6. The hospital should have processes in place to manage the risk that symptomatic external contractors and those delivering goods with COVID-19 could enter the facility;

7. All external contractors and delivery persons should be required to perform hand hygiene on entering and leaving the facility;
8. Appropriate instruction in IPC practice and access to alcohol-based hand rub and PPE should be provided to external contractors where it is necessary to facilitate service provision. If in clinical areas they should use the same standard of PPE in use by healthcare workers in that area.

Access for nominated support partners, accompanying persons and visitors

Separate guidance on access to acute hospitals has been retired. 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 COVID-19 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. A hospital should have a policy on access and should have the capacity and relevant skill sets within its staffing complement to manage access appropriately. The hospital should provide information on access that is clear, up to date and consistent across website, leaflets and when talking to staff 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 should access an acute hospital who has symptoms of COVID-19 or other communicable infectious disease. Very rare exceptions to this may need to be considered 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 staff or if the person has not complied with reasonable measures during previous access.

Standard Precautions

See the Draft National Standards for Infection and Prevention Control (IPC) 2022 for guidance on the following:

1. Hand Hygiene
2. Alcohol-based hand rub
3. Respiratory hygiene and cough etiquette
4. Safe management of linen (Laundry)
5. Management of blood and body fluid spills
6. Management of waste

See the "Draft National Standards for Infection and Prevention Control (IPC) 2022"
https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

Transmission-based precautions for COVID-19

See the "Draft National Standards for Infection and Prevention Control (IPC) 2022" https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

Care for Patients in the Acute Setting

Cohorting

At entry to the hospital, patients presenting for assessment should be assessed for evidence of COVID-19 or other communicable infectious disease (CID) using a checklist of key clinical features. 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 COVID-19 or other CID.

Patients with suspected or confirmed COVID-19 should be cared for by staff that are vaccinated and that have had booster vaccine if at all possible and should be isolated in single rooms with *en suite* facilities. However, where single room capacity is exceeded, it is necessary to cohort patients. It is generally not practical or necessary to institute transmission based precautions on all those patients where there is no clinical suspicion of COVID-19 while awaiting surveillance testing

results, if surveillance testing is being done. It is appropriate to institute transmission based precautions pending surveillance test results on patients on high flow oxygen devices or similar respiratory support while community transmission levels are high. All patients should be encouraged to wear a mask while waiting for the result, if tolerated. They should be offered a respirator or surgical mask as tolerated. There should be local systems in place to ensure a positive test result is promptly recognised and communicated to staff and that transmission-based precautions are immediately implemented for any patient whose test result is reported as SARS-CoV-2 detected; this applies unless it is clear, based on all the available details, that the detection can be considered as representing residual RNA related to previous infection.

Patients should also be assessed with respect to their vaccination status on arrival. To the greatest extent practical, protective measures should apply to patients who are not up to date with recommended vaccination, in particular to those who have not completed primary vaccination. Protective measures may include provision of single room accommodation where this is practical to achieve. These patients should be informed of the specific risk to them of hospital acquired COVID-19, provided with specific advice and support to minimise interaction with other patients in inpatient areas and offered vaccination as soon as they are clinically fit for vaccination.

Patients with confirmed COVID-19 can generally be cohorted together; however, patients with known or suspected variants of concern that are the subject of enhanced public health measures should not be cohorted with other patients.

AGPs on patients with confirmed COVID-19 should only be performed in multi-occupancy cohort areas if there is no practical alternative. If this is unavoidable, every practical effort must be made to minimise the number of staff present in the area during the procedure and to maximise ventilation of the space, and ensure that other patients in the area are offered masks. All staff present in the area should be fully vaccinated and have had booster vaccine and must wear appropriate PPE.

Patients with suspected COVID-19 should not be cohorted with those who are confirmed positive.

Cohorting of suspected COVID-19 cases should be avoided if at all possible. The risk of 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 COVID-19. This is most likely to occur in the assessment stage, where laboratory confirmation of COVID-19 is pending.

When **suspected cases of COVID-19 are cohorted in multi-occupancy areas**:

1. An AGP should not be undertaken in a multi-occupancy area accommodating patients with suspected COVID-19, as there is an increased risk of cross-transmission to other patients;
2. Patients with suspected COVID-19 requiring an AGP should be prioritised for negative pressure or single isolation rooms particularly if a variant of concern that is the subject of enhanced public health measures is known or suspected;
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 these multi-occupancy areas 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 staff. 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 staff in cohort areas and ensure that the number of staff entering the cohort area is kept to a minimum, for example during clinical ward rounds. Maintain a record (for example a sign in sheet) for all staff entering the cohort area;
11. Staff assigned to work in a cohort area should be fully vaccinated and have had booster vaccine. This reduces the risk of infection in staff and reduces risks associated with staff movement during a shift if this becomes unavoidable;
12. Movement of staff and activities in cohort areas should ideally be linear (from clean to dirty zone), allowing staff to enter and exit the designated contaminated area through separate entrances. However, it is recognised that this may not always be feasible;
13. The area should not be used as a thoroughfare by other patients, visitors or staff, including patients being transferred, staff going for meal breaks, and staff and visitors entering and exiting the building.

Patient placement, surveillance & assessment for infection risk

1. All patients must be promptly assessed for COVID-19 risk on arrival at a healthcare setting. Patients with COVID-19 may not have respiratory symptoms on presentation. In all healthcare settings, patients with symptoms of COVID-19 should be separated from patients without symptoms of COVID-19, as soon as possible;
2. **Determine if patients with suspected or confirmed COVID-19 appear likely to have acquired infection outside of Ireland or as a result of contact with someone who appears**

to have acquired infection outside of Ireland. If single rooms are limited, such patients require higher priority for single room isolation and transmission-based precautions should be strictly adhered to given the potential for introduction of new variants of COVID-19 and their amplification in the acute hospital setting;

3. **Staff should be aware that the protection afforded by vaccination may be less when caring for people with infection with certain variants;**
4. Patients who are identified as COVID-19 contacts while in hospital should also be separated from the general patient population as soon as possible. Contacts who are vaccinated including booster or who have had COVID-19 infection in the past 3 months are generally lower priority for separation from the general patient population where facilities are limited. People who are contacts should not be cohorted in an area with patients with suspected or confirmed COVID-19;
5. In the event that a patient presents with suspected COVID-19, but SARS-CoV-2 RNA is not detected from a properly-obtained specimen tested by a validated and sensitive method, transmission-based precautions should continue until such time as:
    (a) a plausible alternative pathogen or diagnosis that explains the presenting complaint is identified and any other pathogen identified does not require contact and droplet precautions;
    (b) further investigation, such as obtaining a repeat specimen for testing and appropriate imaging make a diagnosis of COVID-19 very unlikely and;
    (c) A senior clinical decision maker with experience in managing patients with COVID-19 has determined that contact and droplet precautions are no longer required.
6. Patients should be continuously reviewed throughout their inpatient stay for the development of symptoms that suggest COVID-19;
7. HCWs should not discount the possibility that new symptoms suggest COVID-19, on the basis of a recent test result reported as SARS-CoV-2 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).
8. HCWs should not discount the possibility that symptoms represent SARS-CoV-2 infection on the basis that a patient is vaccinated.

COVID-19 Positive Patient Placement for Inpatient Care

1. Patients with COVID-19 should be accommodated in the same clinical area wherever possible, for example by identifying COVID-19 wards /units;
2. Patients with infectious COVID-19 should be cared for by fully vaccinated staff (including booster vaccination);
3. Signage must be placed at the entrance to the designated COVID-19 ward/unit and at the

entrance to the patient's isolation room or the designated cohort area, to restrict entry and indicate the level of transmission-based precautions required, namely contact and droplet precautions;

4. Patients with COVID-19 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. Patients with COVID-19 may also be considered for accommodation in a designated COVID-19 cohort area, with a toilet allocated for the use of those patients only;
5. In the event of a commode being used, the HCW 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;
6. A second HCW 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 HCW guidance. Listen and respond to any concerns they may have, to ensure support and optimal adherence is achieved during their care;
9. The allocation of patients for available single rooms should be decided locally, based on safety, need, capacity for cohorting of patients with confirmed COVID-19 infection, ward infrastructure and available resources.

Managing a cluster or outbreak of COVID-19 in an Acute Hospital Setting

Each IPCT should have a robust system in place for early detection of inpatients with COVID-19 diagnosed after admission, as this may indicate hospital-acquisition and transmission.

A self-assessment checklist for **IPC measures to manage the risk of spread of COVID-19 in the acute hospital setting** can be found at here: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/Acute%20Hospital%20Checklist%20for%20COVID-19%20Control%20Measures.pdf

1. It is important that the IPCT and Occupational Health Department are in close contact to rapidly detect if there are HCWs with confirmed COVID-19 who have any epidemiological links to wards with suspected cross-transmission;
2. If the test results indicate there are COVID-19 acquisitions associated with a ward or unit, an outbreak should be declared and an outbreak control team convened;
3. An outbreak of COVID-19 must be notified to the Department of Public Health in addition to

the standing obligation for dual notification of all cases of COVID-19 (laboratory and clinical);

4. All of the usual outbreak control measures apply;
5. An outbreak management checklist is available on the HPSC website https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/Checklist%20to%20support%20COVID19%20outbreak%20management%20in%20acute%20healthcare%20setting.pdf
6. Contacts of patients with confirmed COVID-19 should be cohorted together and monitored for new symptoms, with clinical care to include contact and droplet precautions;
7. Avoid cohorting confirmed COVID-19 patients with patients who are not confirmed to have COVID-19;
8. Wherever feasible, try to avoid moving inpatients between wards where transmission of COVID-19 is suspected, unless patient movement is required to support clinical care;
9. Closing an outbreak: an outbreak can be closed following consultation with the Department of Public Health once 14 days have elapsed (that is two incubation periods after the onset of symptoms in the last case – this had been 28 days (2 x 14-day incubation period); however, in light of the shorter incubation period of the Omicron variant, this is now 14 days (2 x 7 days)). **Although the outbreak remains open for 14 days it is generally appropriate for the ward/unit to resume essentially normal operation after 7 – 10 days after the onset of symptoms in the most recent case). Staff should retain a higher level of vigilance for COVID-19 until the outbreak is formally closed**;
10. A self-assessment checklist for IPC measures to manage risk of spread of COVID19 in acute hospital settings is available on the HPSC website https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/Acute%20Hospital%20Checklist%20for%20COVID-19%20Control%20Measures.pdf

Guidance in relation to occupational health issues for HCW is available: www.hpsc.ie

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

A suspected case of hospital-acquired COVID-19 in an inpatient

The European Centre for Disease Control (ECDC) has published surveillance definitions for COVID-19 including definitions for determination of source of infection.

https://www.ecdc.europa.eu/en/covid-19/surveillance/surveillance-definitions

"The case source definitions are as follows (accessed on May 29th):

Community-associated COVID-19 (CA-COVID-19):

1. *Symptoms present on admission or with onset on day 1 or 2 after admission.*
2. *Symptom onset on days 3-7 and a strong suspicion of community transmission.*

Indeterminate association (IA-COVID-19):

1. *Symptom onset on day 3-7 after admission, with insufficient information on the source of infection to assign to another category.*

Probable healthcare-associated COVID-19 (HA-COVID-19):

1. *Symptoms onset on day 8-14 after admission*
2. *Symptom onset on day 3-7 and a strong suspicion of healthcare transmission.*

Definite HA-COVID-19:

1. *Symptom onset on day ≥14 after admission"*

Please note that for cases of COVID-19 with symptom onset within 14 days of discharge, case-by-case determination is advised. The definitions above do not apply to HCW for whom case-by-case determination is advised.

For purposes of reporting data to the HSE's Acute Operations Business Intelligence Unit (BIU), the categories of probable and definite are combined. The above definitions are based on date of symptom onset, however a significant proportion of cases of COVID-19 that are detected after admission to the acute hospital setting are detected in advance of symptom onset by testing. For the purposes of returns to the BIU the date of first positive sample should be considered as corresponding to symptom onset recognising that some such patients will develop symptoms subsequent to the date of first positive test and that some patients will not develop symptoms at any time. Recommendations for testing have evolved during the pandemic, and have moved away from recommending the testing of asymptomatic patients. This is likely to affect both the late detection of community cases in hospital and the pre-symptomatic detection of hospital-acquired cases. Reporting of cases based on these data includes annotation with this point.

1. The usual principles of detection and management of a cluster or outbreak of a transmissible pathogen in acute healthcare settings apply to COVID-19, including the legal obligation to notify the Department of Public Health.

2. The number of hospital-acquired cases of COVID-19 (HA-COVID-19) in acute public hospitals must be reported weekly to the BIU of HSE Acute Hospital Operations. HA-COVID-19 must be recorded as an incident on the National Incident Management System and an incident analysis should normally be performed although in the event of an outbreak it may be more practical to treat the outbreak as a single incident for recording and analysis.
3. A local surveillance system should be implemented in each ward/clinical area, whereby early detection of an admitted patient with new symptoms which may be consistent with COVID-19 is part of the routine daily assessment and handovers.
4. IPC teams should ask about patients or HCW with new symptoms or signs of COVID-19 on their regular visits to wards.
5. Detection of COVID-19 in a HCW requires an assessment as to whether they form part of a hospital-associated chain of transmission, involving patients and HCWs or primarily involving HCWs. Note that diagnosis of COVID-19 in two healthcare workers working in the same ward or unit is not of itself confirmation of an outbreak given the high levels of community transmission. This situation should be considered in the context of other information of infection associated with the ward or unit.
6. Where an inpatient develops new symptoms consistent with COVID-19, apply the recommended IPC precautions for a patient with suspected COVID-19, a swab should be taken and a test ordered for SARS-CoV-2 (COVID-19).
7. Inform the IPCT that an inpatient is being investigated for COVID-19.
8. If the patient is already in a single room, apply all the additional elements of transmission-based precautions required for a patient with suspected COVID-19.
9. 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 COVID-19. If any additional patients have or develop new symptoms, they should also be tested for SARS-CoV-2 (COVID-19).
10. The multi-occupancy room or bay should be closed to new admissions pending receipt of the test result(s).
11. A risk assessment must be undertaken, with regard to decisions to move patients who are awaiting a test result. This needs 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.
12. If a patient who is a contact is fit for discharge to home, they may be discharged. They

should be informed of current public health guidance available on this 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

13. 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), the recommended IPC precautions for a patient with suspected COVID-19 should be applied to all patients in the bay, with nursing staff designated for the care of those patients for the duration of the shift.
14. The test results should be reviewed as soon as available to inform next steps.
15. If an inpatient is confirmed to have COVID-19, clinical care should be continued following the recommended IPC precautions for patients with confirmed COVID-19 and they should be moved to a single room, if not already accommodated in a single room OR if there are two or more patients with COVID-19 on the ward, they may be cohorted together.

A confirmed case of hospital-acquired COVID-19 on a ward

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. A risk assessment process is outlined at the following: https://www.hpsc.ie/az/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/Acute%20Hospital%20Checklist%20for%20COVID-19%20Control%20Measures.pdf

1. Transfer out only based on clinical need or to designated cohort area of hospital

2. All contacts and their vaccination status to be identified. Any patient or HCW who was exposed to the person within 48 hours prior to symptom onset or test date if case is asymptomatic to be identified may be a contact if the exposure exceeded 15 minutes and if they did not follow recommended IPC precautions including appropriate use of PPE

3. Recommendations for testing of contacts and for surveillance testing in response to a hospital acquired case are outlined above (See Section on Contacts within a hospital setting).

4. Samples from apparently isolated cases of hospital acquired COVID-19 and the sample from the index case of any outbreak should be sequenced or submitted for sequencing if at all possible. Consider storing samples from all hospital acquired cases if sequencing is not immediately possible.

Specific settings

The following guidance is given to assist specific care settings to implement the principles of

standard precautions and transmission-based precautions described in this document, which apply in all care settings. This section will be updated as further information becomes available.

Critical Care Setting

1. If admitted to a critical care unit, a patient with COVID-19 should be cared for in a negative pressure isolation room where available, or if not available, a single room. If the patient requires ventilation a closed ventilator circuit should be used.
2. The door to the room must remain securely closed, except when entering or leaving.
3. All respiratory equipment must be protected by a filter with high efficiency (e.g., BS EN ISO 23328-1:2008).
4. Disposable respiratory equipment should be used wherever possible. Reusable equipment must be decontaminated in accordance with the manufacturer's instructions.
5. Ventilator circuits should not be broken, unless absolutely necessary.
6. Ventilators must be placed on stand-by when carrying out bagging.
7. Water humidification should be avoided and a heat and moisture exchange should be used if possible.
8. Use only closed system suction.

Operating theatres

1. The decision that surgery is essential during the weeks after diagnosis of COVID-19 should be made by senior surgeons and anaesthetists and should take account of the risks to the patient of increased mortality associated with surgical procedures following a recent diagnosis of COVID-19.
2. Requirements for surveillance testing for SARS-CoV-2 RNA in advance of scheduled surgery are outlined above (See Section on Surveillance Testing).
3. Ventilation in both laminar flow and conventionally-ventilated theatres should remain fully on during surgical procedures where patients have suspected or confirmed COVID-19 infection.
4. Aerosols which may be generated as a result of AGPs will be rapidly diluted by operating theatre ventilation.
5. There is not a requirement for the theatre to have a fallow/ downtime period before cleaning after surgical procedures where a patient has suspected or confirmed COVID-19 infection; in a theatre in which the ventilation is functioning as expected, the time between cases will be sufficient to highly dilute the air in the theatre. This is because of the high rate of air change per hour (usually 20 changes per hour or higher) in operating theatres.
6. Air passing from operating theatres to adjacent areas will be highly diluted and is not

considered to be a significant risk.

7. Local risk assessment may dictate that a neutral pressure theatre or negative pressure theatre is preferred for COVID-19 procedures. The patient should be transported directly into the operating theatre and should wear a respirator mask or surgical mask if tolerated.
8. The operating theatre staff must be informed in advance of a patient transfer of a confirmed or possible COVID-19 case.
9. The patient should be reviewed, anaesthetised, intubated, extubated and recovered in the operating theatre.
10. All staff present in the theatre should be fully vaccinated and have booster vaccine. Appropriate IPC precautions including hand hygiene and use of appropriate PPE should be followed by staff present in the theatre when AGPs are performed (for example intubation, extubation). If the operative procedure is anticipated to involve an AGP, as described in the section on AGP, all staff present in the theatre for the duration of the surgery must wear appropriate PPE for an AGP scenario.
11. Entry and exit from the room should be minimised during the procedure.
12. Disposable anaesthetic equipment should be used where possible.
13. The anaesthetic machine must be protected by a filter with viral efficiency to 99.99%.
14. The operating theatre should be cleaned, as per local policy, paying particular attention to hand contact points (for example on the anaesthetic machine).
15. Instruments and devices should be decontaminated in the normal manner, in accordance with manufacturer's advice.
16. Note that use of valved respirator masks and of PAPR during surgery has been associated with serious surgical site infection related to condensation dripping into surgical wounds.

Outpatient Department (OPD) or Day Service

Refer to the HSE Acute Operations Guidance on Scheduled Care for further information.

Cancer services

Recent public health guidance for cases of COVID-19 indicates that they should self-isolate for 7 full days from the date of onset of symptoms or if asymptomatic from the date of a positive test (either antigen test or PCR). In general patients attending for Systemic Anti-Cancer Treatment should defer attending day services for SACT for an additional 7 full days (14 full days in total) because of the specific risk profile of this patient population. If therapy during that period is essential it should be delivered with appropriate IPC precautions.

Patients attending day services for SACT who have become household contacts of a case of COVID-19 should contact their day service prior to attending for care and treatment.

Radiology

1. Refer to the section on mobile medical equipment for guidance on mobile X-ray devices.
2. Refer to the section on PPE for guidance on requirements when undertaking procedures for those with known or confirmed COVID-19 infection.
3. All patients should be asked to wear a respirator mask or a surgical face mask while waiting for and during their procedure, where tolerated.
4. Appointments should be scheduled so that patients are not kept waiting in communal areas.
5. If a patient with suspected or confirmed COVID-19 infection attends the radiology department, all surfaces and equipment that the patient has been in direct contact with should be cleaned and disinfected after the patient has left, as per standard protocol.
6. The room can be cleaned once the patient has left and used once surfaces are dry, unless an AGP was performed.
7. Pay special attention to thorough cleaning of frequently-touched sites, such as the trolley, chair handles and horizontal surfaces.
8. For CT scanning –once the patient has left the room, the area can be immediately cleaned and disinfected as per standard protocols.

Dialysis

General preparedness

1. The vaccination status of all dialysis patients should be documented (note they should be offered extended primary vaccination if they have not already availed of this) and booster vaccine when eligible.
2. Vaccination and booster vaccination is highly recommended for all staff working in dialysis units to reduce risk for dialysis patients.
3. All dialysis patients should be provided with information on the signs and symptoms of COVID-19 infection and general measures, including; respiratory hygiene and cough etiquette, hand hygiene and physical distancing available on www.hse.ie.;
4. Review patient pathways to the dialysis unit and within the unit to minimise risk of people mixing.
5. Ensure that arrangements are in place for individuals who do not have access to private transport to attend for their dialysis if they have symptoms of viral respiratory infection.
6. If a symptomatic individual attends the unit, IPC measures should immediately be applied. Arrangements should be in place for a nasopharyngeal swab sample to be collected and tested for SARS-CoV-2 as swiftly as possible.

7. Ensure a designated isolation area has been identified for dialysis.
8. Ensure that processes are in place for rapid triage and isolation of patients with symptoms of suspected COVID-19 or another respiratory viral infection.
9. Minimise patient-to-patient contact. For example, stagger arrival times, extend waiting areas or bring patients directly to their dialysis station.
10. Provide access to alcohol-based hand rub and tissues.
11. Provide respirator mask if tolerated and if not tolerated then a surgical face mask to patients, so that they can be used when they attend the unit. A mask need not be worn when they are in their assigned space for dialysis although some units may request this based local risk assessment.
12. If patients are requested to wear a mask in their bed space this should not be a barrier to providing patients with refreshment or meals while attending for dialysis.

Before arrival to the Dialysis Unit

1. Dialysis patients should be instructed to contact the dialysis unit if they have symptoms of COVID-19 or fever, ***in advance of attending for dialysis***. This continues to apply to patients who are fully vaccinated.
2. Patients who attend Satellite Dialysis Units with symptoms of COVID - 19 or fever may be dialysed in their usual satellite dialysis unit or the parent renal unit, in accordance with local operational policies and arrangements.

Transport

Asymptomatic patients 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.

Individuals who have symptoms of COVID-19 or confirmed infection should telephone in advance of their appointment and if necessary, may drive themselves to the unit if they feel well enough or be driven in private transport by someone who has already had exposure and is willing to drive them. Where dialysis units provide dialysis patients with a surgical mask/respirator mask after each dialysis for next dialysis transport day this should be worn for transfer to hospital. If they do not have access to a surgical/respirator face mask they should use a cloth face covering. Where they cannot arrange for their own transport, the unit should have alternative arrangements in place. They should be provided with a respirator mask if one is available and they can tolerate wearing it.

Patient Placement for dialysis

Asymptomatic individuals who have completed extended primary vaccination and booster when eligible - should proceed with dialysis as per usual.

Individuals who have travelled from outside of Ireland in the previous 14 days should be assessed for symptoms of COVID-19 or other respiratory symptoms, and managed according to whether symptoms present or not.

Patient Placement

Asymptomatic individuals regardless of vaccination status - should proceed with dialysis as per usual.

Symptomatic individuals – with possible or confirmed COVID-19 infection should be placed in a single room with the door to remain closed, where possible. Negative pressure isolation is not necessary, unless AGPs are to be performed (see list of AGP above). Appropriate isolation signage should be placed on the door. Contact and droplet precautions should be added.

It may be necessary to transfer symptomatic individuals with possible or confirmed COVID -19 infection who present to satellite dialysis units to the parent renal unit, in accordance with local operational policies and arrangements.

In the event that the need arises, consideration can be given to cohorting patients with confirmed COVID-19 infection who require dialysis.

Dialysis Machine

The dialysis machine cleaning/disinfection protocol should be adhered to, as per standard practices.

Maternity Units

The following section addresses specific infection prevention and control issues, which may arise in the care of a mother with suspected or confirmed COVID-19 infection in the maternity setting.

This section should be read in conjunction with guidance from the Institute of Obstetricians and Gynaecologists, RCPI available here

Issues related to access to acute hospitals by nominated support partners, visitors and others are addressed in the guidance document available in Appendix 5.

Delivery

1. Mothers should not be asked to wear a face mask during labour and childbirth while within their assigned delivery room. However, they should be requested to wear a respirator mask

or a surgical face mask as tolerated when outside of the isolation room.

2. A nominated support partner may accompany a woman with COVID-19 in labour while within the assigned delivery room provided the nominated support partner understands and accepts the associated risk of exposure to infection and adheres to all IPC requirements.
3. Appropriate PPE must be worn by any person entering the room.
4. The use of birthing pools should be avoided for suspected or confirmed cases of COVID-19 infection.
5. The use of Entonox or maternal pushing during labour are not AGPs associated with an increased risk of infection.

Postpartum

If the mother is well enough to care for the baby herself, both mother and baby should be isolated in a single room with *en suite* facilities for the duration of hospitalisation. The following additional precautions are advised:

1. The baby should be placed in an enclosed incubator in the room.
2. Where an enclosed incubator is not available, the cot should be placed at least 2m distance from the mother.
3. When baby is outside the incubator and mother is breast feeding, bathing, caring for, cuddling, or is within 2m of the baby the mother should be advised to wear a respirator mask if tolerated and if not tolerated then a surgical face mask, and to clean her hands thoroughly with alcohol-based hand rub or soap and water before and after interacting with the baby and to increase ventilation in so far as practical consistent with weather and comfort.
4. The mother should be encouraged and taught to practice respiratory hygiene and cough etiquette.
5. The baby should be temporarily removed from the room if any AGPs are to be performed within the room.
6. Routine testing of babies born to mothers with suspected or confirmed COVID-19 infection is not appropriate. However, they should be closely monitored for signs of infection.
7. Parents should be provided with information about signs of possible COVID-19 infection in their baby and aware of who to contact if they are concerned post discharge.

Breastfeeding

To date, no evidence has been found to suggest that the virus is transmitted in breast milk. The following precautions are advised:

1. If a mother with COVID-19 is breastfeeding, she should be advised to wear a respirator mask or a surgical face mask as tolerated and to wash her hands or use alcohol-based hand rub before and after interacting with her baby.
2. If the mother is expressing breast milk using a pump, this should be designated to the mother for the duration of hospitalisation and should be cleaned and disinfected, as per the manufacturer's instructions.
3. The expressed breast milk (EBM) container should be transported from the mother's room to the storage location in a plastic-specimen transport bag. Storage conditions should be as per local policy. However, the EBM should be clearly marked and stored in a patient-specific container box separately to the EBM of other patients.

The neonate born to a mother with suspected or confirmed COVID-19 infection

Suctioning, bag mask ventilation and intubation of new-borns are considered to be AGPs and although the absolute risk to HCW performing these procedures on new-born infants is thought to be low, appropriate IPC precautions including use or appropriate PPE are recommended:

1. As soon as the infant is stabilised after birth, they should be placed in an enclosed incubator.
2. Where admission to a neonatal unit is required for an infant of a mother with suspected or confirmed COVID-19 infection the neonate should be isolated in an enclosed incubator in a single room where possible. Appropriate isolation signage should be in place.
3. Staff caring for infants of suspected or confirmed COVID-19 infants should wear appropriate PPE.
4. The duration of transmission-based precautions should be discussed on a case-by-case basis with the local IPCT.

Acute Mental Health Facilities/Units

The IPC requirements for care of people with suspected or confirmed COVID-19 are the same for patients in Acute Mental Health services as in other acute services. However, there may be specific challenges related to the patient's overall care needs. One of the challenges which require planning relates to care of patients with impaired spatial awareness.

Therefore, if a patient is suspected or confirmed to have COVID-19, the recommended IPC precautions should be instituted as above, but may be subject to the following considerations:

1. Isolation in a single room may be associated with specific risks in relation to the overall care needs of some patients, which may make this impractical to apply. Consultation with public health and/or IPC specialists should be considered in these cases to determine the best level of IPC practice that can be achieved in the circumstances.

2. If the patient cannot be placed in a single room, but can tolerate wearing a respirator mask or a surgical face mask, this may help to reduce risk of exposure for other patients and staff.
3. If isolation in a single room is not practical or is not safe, consideration should be given to how the patient can be cared for in ways that maintain a distance from other patients and from staff to the greatest extent possible and in a space that can be adequately ventilated. For example, if there is a bay or area available where the person has as little contact as possible with other patients.
4. If there is more than one inpatient with COVID-19 they should be accommodated in the same clinical area whenever possible. Please refer to cohorting section.
5. Staff should follow IPC practice including use of PPE as outlined in 'recommendation for the use of PPE section'.
6. If the wearing of a respirator mask or a surgical face mask by staff creates practical difficulties in interacting with the patient, a clear full face visor worn correctly will substantially reduce exposure of staff to droplets in a low-risk scenario. The visor or face shield should be sufficient in width and length to cover the face e.g. extends below the chin and provides cover to the side. For use in healthcare the face shield should conform to the required specifications (EU PPE Regulation 2016/425, EN16 or equivalent).
7. However, as face visors are generally not considered to afford the same level of protection as a respirator mask or a surgical face mask, they should not be worn as a substitute for a mask in high risk scenarios (for example when caring for a patient with suspected/confirmed COVID-19). Note however that the risk in situations where mask use is not practical is lower for staff that are fully vaccinated and have had booster vaccine.
8. If the patient is mobile, facilitating access to a safe outdoor location where possible may be helpful in reducing risk of exposure of other patients and staff.
9. There is rarely a justification on IPC grounds to impede access by a patient to a second opinion, peer support or legal advice. The service provider should be informed of the risk, accept that risk and be supported in managing the risk to themselves.
10. IPC measures required to minimise risk for those offering a second opinion, peer support or legal representatives are those outlined in the main document, as appropriate for any member of staff providing care.
11. For those with COVID-19 a risk assessment should be completed before electroconvulsive therapy (ECT) is undertaken. In situations where this procedure is urgent and the patient is a suspect/confirmed case of COVID-19, ECT should be carried out as an AGP, with IPC measures for AGP outlined in this guidance to be followed.
12. Some patients may benefit from going home for visits or overnight stays. For others going home may be a key part of the process of preparing for discharge. This is low risk for patients who are vaccinated including booster vaccination and particularly so if everyone in the home they are visiting is asymptomatic and vaccinated including booster vaccination. In these circumstances

patients who are vaccinated including booster vaccination and are readmitted to the facility after weekend leave are not required to restrict their movements after they return from such leave unless they have had a specific risk exposure during their absence.

13. Staff visiting the services to provide sessional care/therapy are not restricted in delivering the service and should follow appropriate IPC measures at all times, including; getting vaccinated and booster vaccine, hand hygiene, respiratory etiquette, physical distancing and appropriate PPE, as outlined in this guidance for acute hospitals. If visiting staff are fully vaccinated and have had booster vaccine the associated risk is much less.
14. Dedicated rooms for family meetings and group therapy in the service should be organised to meet IPC guidance to the greatest degree practical.

Community Hospitals and Post-acute Rehabilitation Facilities

There are a number of specific challenges for community hospitals and rehabilitation centres. They are in some respects more similar to acute hospitals than to long-term residential care facilities (LTRCFs).

1. Many have very few single patient rooms and are largely dependent on multi-bed rooms that is two, four, six bed or larger areas.
2. They have higher turnover, as the length-of-stay is typically two to four weeks, even though it is understood that some patients may have longer lengths-of-stay as part of their rehabilitation.
3. Patients may require very intensive therapy to support their rehabilitation and return to the greatest possible level of independent function.
4. The following guidance is provided to address the specific challenges managed by these facilities.
5. In facilities where care is provided for both long-term care residents and for short stay patients, distinct wards and areas should be identified, to meet the different requirements for care of both groups.
6. The facility should have plans in place for the management of patients who develop symptoms during their admission. This includes planning for isolation of symptomatic patients and isolation should the need arise.
7. The vaccination status of every person should be determined before admission or as soon as possible after admission.
8. All patients should be assessed before admission to ensure that their vaccination status is known and recorded. It should also be determined if they have clinical symptoms suggestive of COVID-19.
9. Whenever practical and consistent with the vaccination programme and the patient

consents, the patient should be vaccinated, including booster vaccination, prior to transfer from an acute hospital to the rehabilitation setting. If this is not practical for any reason vaccination should be offered to eligible patients as soon as possible after transfer.

10. Testing of asymptomatic individuals regardless of vaccine status on transfer or admission, including contacts that have had COVID-19 in the previous 3 months is generally not required. Testing of asymptomatic individuals on admission/transfer may remain appropriate for those on non-invasive respiratory support.
11. With these controls in place, patients can be admitted to a multi-bed cohort area with other newly-admitted patients, if there are no available single rooms and provided there is no other requirement for transmission-based precautions. The risk of cohorting is much reduced if the patients in the cohort area are fully vaccinated including booster vaccination.
12. Where cohorting new patients in a multi-bed area is necessary, the cohort areas for admission should include as few beds as possible (for example, a 2-bed or 4-bed area is preferred to a 6-bed area).
13. Where practical to do so, those admitted from the community and who have required testing, and are awaiting test results should be accommodated in a single room or in separate areas, until the test result is available and reported as SARS-CoV-2 RNA not detected.
14. For patients where there is no clinical suspicion of COVID-19, they can interact with other patients and can access shared space as required to progress their rehabilitation from the time of their admission.
15. As at all times, staff caring for patients should apply standard precautions plus a surgical mask when caring for all patients who do not have suspected or confirmed COVID-19.
16. Where practical, patients should be encouraged to wear a respirator or surgical mask as tolerated when they are not in their bed space and if they choose to wear a mask for most of the time, including in their bed space, this should be facilitated.
17. Asymptomatic patients who are vaccinated including booster should be encouraged to wear a respirator or surgical mask if tolerated when they are not in their bed space, but when visiting in a room or sharing a room with one other patient who is fully vaccinated they need not wear a mask or observe physical distancing.
18. Each cohort area should have designated bathing and toilet facilities, where practical to do so. Where this is not practical, the bathing and toilet facilities should be shared with the lowest possible number of other patients.
19. All patients should be monitored twice daily for symptoms of COVID-19.
20. Patients should be advised not to share personal items, including food/drink though this need not apply to two people who are fully vaccinated and who share a two-bed room.
21. Some patients may benefit from going home on visits or overnight stays. For others going home may be a key part of the process of preparing for discharge. There is no requirement

to limit the movement of a resident after return from an outing or hospital attendance regardless of the duration of the absence unless some significant and unanticipated exposure risk occurred or there is a specific public health or IPC recommendation that requires limitation of movement.

Transfer

Internal Transfer

1. Minimise movement of the patient from the single room or designated cohort area.
2. Patients should wear a respirator or surgical mask if tolerated when outside their room or designated cohort area.
3. HCWs in the receiving departments should be informed of the precautions required prior to the transfer of the patient (for example diagnostic departments, operating theatre).
4. Investigations should be scheduled so that patients are not waiting in communal areas.
5. Cleaning and decontamination of the patient's room or bed space in a cohort area, along with equipment should be undertaken following completion of the procedure.

External Transfer

1. Transfer of patients with confirmed COVID-19 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 HCW in the receiving facility and the ambulance personnel of the diagnosis, the date of symptom onset and the precautions required.
3. In keeping with written communication issued by the HSE's Chief Clinical Officer, transfer of patients should be not be refused or delayed, pending results of testing for SARS-CoV-2.
4. Testing of asymptomatic individuals as a condition of transfer is not acceptable. However, surveillance testing on arrival at the receiving hospital may be appropriate, in line with requirements for testing other admissions.

Guidance on the transfer of hospitalised patients from an acute hospital to a residential care facility

Refer to Appendix 2 and section 'Community Hospitals and Rehabilitation Facilities'.

Transfer from primary care/community settings using hospital transport systems (e.g., Oncology Day Care)

Patients attending for essential care (Oncology) should be advised to contact their usual care unit by telephone if they have new symptoms consistent with COVID-19, rather than presenting themselves.

Patients who have been in close contact with someone who has suspected or confirmed COVID-19 infection should be instructed to advise the unit in advance of attending.

Patients who have no symptoms suggestive of COVID-19 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 symptoms of possible COVID-19 must telephone in advance of their appointment and if necessary, may drive themselves to the unit, if they feel well enough or 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.

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 their COVID-19 testing and vaccination status is communicated to the home care team in advance of their first attendance. This information should include information on COVID-19 vaccination status, dates and results of any COVID-19 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.
3. IPC advice for staff in home care teams is available at https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/homecarevisitsguidance/

Care of the Dying with suspected/confirmed COVID-19 Infection

1. A compassionate, pragmatic and proportionate approach is required in the care of the dying. If an accompanying person is fully vaccinated including booster if eligible the risk to them in accompanying the dying person is likely to be less.
2. The presence of a person close to the individual should be facilitated, but they should be aware of the potential infection risk.
3. Pastoral care team where requested by the person or their family should NOT be restricted from entering an isolation room or cohort area.
4. All persons in attendance should be advised to wear a respirator or surgical mask and plastic apron.
5. Gloves are not essential for skin-to-skin contact, so long as those in attendance understand the risks; perform hand hygiene after touching the person and before leaving the room.
6. Visitors should be instructed on how to put on and take off the PPE & how to perform hand hygiene. Where practical, visitors should be supervised when donning and doffing PPE.
7. If specific religious rites require direct transient physical contact with the skin, gloves are not necessary, so long as hand hygiene is performed after touching the person.

Care of the Deceased with Confirmed COVID-19 Infection

Autopsy

Please refer to the RCPI Faculty of Pathology guidance for performing autopsy procedures.

Communication of level of risk

It is understandable that those who will be handling the remains will be concerned and may wish to be made aware of the patient's infectious status.

Viewing of the remains of the deceased by having an open coffin carries negligible additional risk of transmission of COVID19. Those viewing remains should be advised not to kiss the deceased and should clean their hands with alcohol-based hand rub or soap and water after touching the deceased. The additional risk of touching the remains for those family members who were with the person towards the end of life is likely to be negligible.

Hygienic preparation

1. Any IPC procedures that have been advised before death must be continued in handling the deceased person after death. In relation to COVID-19, specifically if transmission- based precautions have been discontinued before death, then they are not required after death – see section on duration of transmission-based precautions.
2. Hygienic preparation includes; washing of the face and hands, closing the mouth and eyes, tidying the hair and in some cases, shaving the face.
3. Washing or preparing the body for religious reasons is acceptable if those carrying out the task wear long-sleeved gowns, gloves, respirator mask or a surgical facemask and eye protection if there is a risk of splashing, which should be discarded after use.

Transport to the Mortuary of a person deceased during the infectious period

1. An inner lining is not required in terms of COVID-19 risk, as per WHO guidance, but may be required for other, practical reasons such as maintaining dignity or preventing leakage affecting the mortuary environment.
2. A surgical mask or similar should be placed over the mouth of the deceased before lifting the remains into the inner lining.
3. Those physically handling the body and placing the body into the inner lining should wear the following PPE: Gloves, long-sleeved gown, respirator mask.
4. Pay close attention to hand hygiene after removal of PPE.
5. Once in the hospital mortuary, it would be acceptable to open the inner lining, if used, so that viewing of remains was possible (the mortuary attendant should wear PPE to open the inner lining as above).
6. Those viewing remains should be advised not to kiss the deceased and should clean their hands with alcohol-based hand rub or soap and water after touching the deceased.
7. Once the body has been placed in the coffin, PPE is not required for transfer or for other parts of the funeral or burial process. The unnecessary wearing of PPE during the burial and other public events can cause significant distress to families and should be avoided when not required.

Handling personal possessions of the Deceased

1. Most jewellery, including watches, rings, bracelets, earrings and items like photo frames can be wiped down using a detergent/disinfectant wipe. Alternatively, items of jewellery (with the exception of watches) can be placed in hot soapy water and cleaned first, then rinsed and dried using disposable paper towel.
2. Items of clothing and soft toys should be placed directly into a washing machine and washed

on the hottest setting that the fabric can withstand.

3. Paper materials, such as prayer books/religious texts or items that cannot be wiped can be handled, and there is not a requirement to be set aside for any period before handling. Hand hygiene should be performed after handling.
4. There is no requirement to set aside for any period any clothing for hand washing. Such clothing can be washed as required.
5. Personal belongings that family members wish to discard should be placed in a plastic bag and tied securely, after which it can go out for collection in the general waste.

Other Acute Services Supporting Patient Care

Laboratory

1. For information in relation to laboratory processes, refer to *Biosafety guidance for diagnostic laboratories handling specimens from individuals with possible or confirmed infection with Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)* available at: https://www.hpsc.ie/az/respiratory/coronavirus/novelcoronavirus/guidance/laboratoryguidance/
2. Double bagging of specimens at time of collection is not required. Care should be taken not to contaminate the outside of the bag.
3. Laboratory specimens, including those from COVID-19 patients can be sent by pneumatic tube systems, in line with standard operating procedures.
4. Blood cultures can be collected, as per standard procedures.
5. HCWs collecting samples should contact laboratory HCWs when specimens are submitted from a patient with suspected or confirmed infection, through proper completion of request forms or electronic test ordering systems, or by direct communication with the laboratory. Transport of specimens between laboratories should be in accordance with Category B transportation regulations.

Point-of-Care / Near Patient Testing

If point-of-care testing/ near patient testing is performed on potentially-infectious specimens it must be performed following risk assessment and in accordance with a clearly defined process to manage the risks associated with handling samples outside of a biocontainment level 2 laboratory [Detailed guidance on performance of antigen testing is outside the scope of this document].

If point-of-care/ near patient blood gas analysis is necessary to manage a critically ill patient, the incremental risk of transmission of SARS-CoV-2 to the HCW beyond the risk of delivering direct patient care is likely to be minimal, and it may be performed with the following precautions:

1. The operator must adhere to standard, contact and droplet precautions throughout the blood specimen collection at the patient's bedside.
2. The needle should be removed and disposed of safely and the adaptor applied to the tip of the syringe. If air must be expelled from the sampling syringe, this should be performed in the patient care zone with the syringe pointing away from the operator.
3. Ideally a blood gas analysis machine should be placed within the patient room if repeat testing is likely to be required. If a blood gas analysis machine is not in the patient room, then the syringe should be laid flat in a disposable tray with deep sides for transport to the blood gas analyser.
4. Remove PPE and perform hand hygiene on leaving the patient room. Apply clean gloves and transfer specimen to a clean disposable tray and take the tray with the specimen to the blood gas analyser.
5. The analysis of the specimen may be performed as normal, using standard precautions.
6. The residual blood in the syringe should be discarded as per standard practice and the instrument and its surroundings are cleaned/disinfected after use.

Pharmacy

Medication delivery

Once medication delivery boxes/totes/chute capsules/reusable bags etc. have not been in direct contact with the immediate environment of COVID-19 patients AND provided standard precautions have been carried out by all staff, additional decontamination of these receptacles is not required over and above routine cleaning.

Medication returns to the Pharmacy

Hospital-issued medication that forms part of ward stock in drug presses or drug trolley: Provided standard precautions have been carried out by all staff, the return of medicines from a COVID-19 ward should follow usual procedures.

Patient Care Equipment/Instruments/Devices

1. Reusable non-invasive medical devices should as far as is possible be allocated to the individual patient or for use by a designated cohort of patients with appropriate decontamination between each patient use.
2. These items (including stethoscopes) can be reused, with appropriate decontamination after patient use, after blood and body fluid contamination and at regular intervals, as part of the equipment cleaning schedule.

3. Manufacturer's instructions should be followed for cleaning and disinfecting of reusable medical equipment after use.
4. Increase the frequency of cleaning/disinfection for reusable non-invasive care equipment when used in isolation or cohort areas.
5. Single-use items must be discarded after use, in line with standard procedures.
6. Staff should increase the frequency of cleaning of electronic equipment, such as mobile and desk phones, tablets, desktop touch screens, keyboards, printer touch screens. A supply of wipes should be available in areas where the devices are most commonly used.

Mobile healthcare equipment

1. The following advice applies to devices that cannot be left in the isolation room, such as portable X-ray machines and portable electronic devices used in patient care:
2. The use of mobile healthcare equipment should be restricted to essential functions, as far as possible to minimise the range of equipment taken into and later removed from the room.
3. The operator of the device must have had training in IPC procedures, including hand hygiene and use of PPE.
4. The operator should perform hand hygiene and wear PPE, as described earlier in this document, when in the isolation room or cohort area.
5. Any equipment taken in to the room, which must be subsequently removed, needs to be cleaned and disinfected immediately after leaving the area.
6. Any additional items, such as a digital detector or a cassette will also need to be cleaned and disinfected in a similar fashion, regardless of whether there has been direct contact with the patient or not. This is due to the risk of environmental contamination of the equipment within the isolation room.
7. Personal digital assistants (PDAs) that are used with electronic blood tracking systems.
8. PDAs and wireless printers, where used should be dedicated for use in cohort areas for confirmed/suspected COVID-19 patients and should not be used in non-COVID-19 areas.
9. Due to the requirement for HCW to wear PPE, they will be unable to scan their ID badge. Therefore, they should bring a photocopy of their badge to the bedside for the PDA. The photocopy should be discarded in the healthcare risk waste bin in the room.
10. After use, devices should be decontaminated in line with usual local policy. No additional precautions are required.
11. It is important to check the cleaning guidelines accompanying each device. If a particular device is not capable of being adequately decontaminated (e.g., PDA with touch pads/buttons), they should not be used in these areas. If their use is unavoidable, consider using a single-use, self-adhesive protective film to cover the device and dispose of film after use.

Mobile Device Use in the Clinical Setting

Although there is limited evidence that directly links the use of mobile devices with an increase in healthcare-associated infections, a number of studies have shown that mobile devices can act as potential sources for pathogenic bacteria, including *Staphylococcus aureus*, *Klebsiella spp.* and other organisms.

The increasing use of mobile phones and tablets present unique challenges in the healthcare setting, because they are frequently touched by the hands of HCWs (with and without gloves), they are used in multiple patient rooms and other potentially contaminated environments or are carried in pockets or on lanyards.

1. It is important that all mobile devices, including tablet computers, mobile phones and personal digital assistant devices (PDAs) are used and managed safely, to minimise the risk of cross- infection and ensure patient care and safety is not compromised.
2. Do not bring personal mobile devices with you when attending to a patient who requires transmission-based precautions, when performing any activity that requires extended close patient contact or when performing an aseptic technique.
3. HCWs must perform hand hygiene as per the 'WHO 5 moments' before and after each patient interaction and before and after touching any device.
4. Before using a mobile device, remove your gloves and perform hand hygiene.
5. Avoid placing mobile devices on a patient's bed or locker (consider IT stands or trolleys).
6. Avoid inappropriate use of a mobile device during clinical procedures. If a HCW has to take a call or text, they should remove themselves from the activity, remove their gloves and clean their hands.
7. Mobile devices should not be used inside isolation rooms, home or cohort zone of infected patients/people, unless for essential use, when a risk assessment will be required.
8. If a mobile device must be used inside the isolation or cohort zone of patients with suspected/confirmed COVID-19, ensure the device is cleaned and disinfected before, in between patients and after use.
9. Alternatively, consider the use of a protective cover, bag or film where appropriate.
10. Ensure all mobile devices are intact to allow effective cleaning/disinfection.
11. Mobile devices for use in the clinical environment should be of a design that allows them to be appropriately decontaminated. For example, an intact case/cover that will withstand cleaning and disinfection.
12. HCWs should adhere to local policies about which cleaning product (wipe or solution) to use for decontaminating mobile devices.
13. Devices should be intact to allow effective cleaning/disinfection. For example, without cracked screen, casing or cover.

14. Accessories including charging lead and Bluetooth keypads are intact, with no wires bare, no cracks in plugs or case, to allow effective cleaning/disinfection.
15. Devices used for clinical care/treatment/management must be cleaned/disinfected before, in between patients and after use.
16. Devices given to an inpatient for use must be cleaned at least twice daily and cleaned/disinfected before use by another patient.
17. Tablets or touch screens located in public places with open access must be cleaned at least twice daily or more frequently if the device is visibly contaminated.
18. Charging cabinets should be included in the cleaning schedule, as per manufacturer's instructions. HCWs should always clean their own personal devices at least daily or at the beginning and end of each shift.
19. Mobile devices should not be used in an isolation room or cohort area for suspected or confirmed COVID-19 patients without assessing the risk.

General Environment

1. The care environment should be kept clean and clutter-free to facilitate cleaning.
2. 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.
3. 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.
4. 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.
5. Patient observation charts, medication prescription and administration records (drug kardexes) and healthcare records should not be taken into the isolation room or patient zone within a designated cohort area to minimise the risk of contamination.
6. The risk of acquiring infection from contact with surfaces is low and risk from interacting with healthcare records or paper charts is thought to be extremely low. This low risk can be mitigated by staff cleaning hands after touching surfaces. In this case, staff would be advised to clean hands before and in particular after handling the charts or paper records. There is no recommendation or need to hold paper charts or records in any form of quarantine.
7. If an electronic patient health record (EHR) is used in the facility, a mobile workstation for the EHR should remain in the cohort area.

Routine cleaning

See the "Draft National Standards for Infection and Prevention Control (IPC) 2022"
https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

General deployment of new technologies for cleaning and disinfection of the healthcare environment is not recommended in the absence of evidence that they impact on the transmission of COVID-19.

Terminal Cleaning

Terminal cleaning is performed after the patient has vacated the room and is not expected to return (e.g., following patient discharge or transfer). In addition to the routine cleaning protocols, a terminal clean requires:

1. Removal of all detachable objects from a room or cohort area, including laundry and curtains;
2. Removal of disposable items, including paper towels and toilet paper;
3. Removal of waste (See Appendix 4);
4. Cleaning (wiping) of lighting and ventilation components on the ceiling;
5. Cleaning of curtain rails and the upper surfaces of hard-to-reach fixtures and fittings;
6. Cleaning of all other sites and surfaces, working from higher up downwards to floor;
7. A terminal clean checklist is good practice to support cleaning or household staff to effectively complete all environmental cleaning tasks, which should be signed off by the cleaning supervisor before the room reopens for occupancy by a new patient.

Unused Medication, Blood Products and PPE

Do not discard unused medicines or PPE that have been in close proximity to a COVID-19 case (for example contents of a crash tray or wrap or an intubation kit). If necessary, decontaminate medicine boxes/outer packaging with alcohol 70% wipes or disinfectant wipes. A partially-consumed medication tray/wrap/kit should be refurbished or replenished, as per local hospital arrangements.

Unused blood components that were brought into an isolation room or cohort area should not be discarded due to concerns about COVID-19, so long as they meet local haemovigilance criteria for return. If there is concern about surface contamination, then decontaminate the outer surface of the blood component bag using alcohol 70% wipes or disinfectant wipes.

Catering

There is no need to use disposable plates or cutlery. Crockery and cutlery can be washed in a dishwasher, or by hand using household detergent and hand-hot water after use.

Where practical, catering staff should not bring the catering trolley into a cohort area.

If a HCW is already in a cohort area and wearing PPE, that person could take the meal trays from the catering staff member at the entrance to the area and deliver them to each patient, so that catering

staff do not need to enter the cohort area.

If catering staff do need to enter the cohort area and will be within two metres distance of a patient, they should wear appropriate PPE.

Water coolers

Hospitals should assess the risk associated with transmission of COVID-19 associated with communal water coolers and reusable drinking receptacles particularly in clinical areas. Where there is an identified risk, the water coolers should be decommissioned and an alternative drinking water supply provided.

Personal Protective Equipment (PPE)

Personal protective equipment (PPE)

See the "Draft National Standards for Infection and Prevention Control (IPC) 2022"
https://www.hse.ie/eng/about/who/nqpsd/nirp/ncec-ipc-guideline-2022-for-consultation.pdf

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

As part of Standard Precautions, it is the responsibility of every HCW 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, including the choice of appropriate PPE for those who need to be present (Appendix 6 & 7).

Current guidance for the use of masks by HCW in the context of COVID-19 states that:

1. Respirator masks should continue to be worn by healthcare workers in all settings where they are caring for patients with suspected or confirmed COVID-19.
2. Respirator masks should also be worn in settings where the infection prevention and control team advice indicates that there is a high risk that patients with unsuspected COVID-19 are likely to be present.
3. Healthcare workers in low-risk settings, when caring for those who do not have suspected or confirmed COVID-19, can revert to wearing a surgical mask.
4. Recognising that health care workers' preferences are an important consideration, respirator masks should continue to be available to healthcare workers in all settings, although they are not required.
5. Carer staff who live and work with residents in health and social care settings should, when caring for those who do not have suspected or confirmed COVID-19, revert to wearing a surgical mask.

6. Surgical masks should be worn by all healthcare workers for interactions with other healthcare workers in healthcare settings where patients are not cared for.
7. HCWs in non-clinical settings where patients are not cared for may revert to public health guidance and may choose to continue to wear a surgical mask.
8. The hospital IPC team should review any new items of PPE for suitability and consider if existing guidance for staff requires updating, to ensure it is compatible with the new item of PPE;
9. Wearing of masks when providing care for certain categories of patient, for example patients who may need to lip-read, can present practical difficulties for patient care. In such circumstances, it is appropriate to perform an institutional risk assessment and to consider alternatives to mask use, such as use of a Perspex screen/barrier or visor that manages the risk of transmission of COVID-19. The risk for staff members is likely to be reduced if they are vaccinated including booster or have had COVID-19 in the previous 3 months;
10. PPE must be worn by ALL staff entering a room or cohort area where a patient with suspected or confirmed COVID-19 is being cared for;
11. PPE should be readily available outside the patient's room or cohort area;
12. Have a colleague observe donning and doffing of PPE where practical.

Extended use of PPE

1. Extended use of PPE for the sole purpose of limiting demand for PPE is not appropriate, as adequate supplies of PPE are available;
2. It is recognised that in certain circumstances such as when working in a cohort area or ward dedicated to patients with COVID-19, extended use of certain items of PPE when moving between patients may be considered to facilitate working and to reduce potential HCW exposure related to very frequent donning and removal of PPE. Where measures vary from usual practice, it is necessary to ensure the lowest possible risk to patients and HCWs. Extended use means that certain items of PPE (gown, respirator mask, surgical mask, eye protection) may be used while attending to a series of patients with COVID-19 in succession in a single period of clinical activity in one ward or unit;
3. Gowns should normally be changed between patients and after completion of a procedure or task. However, if necessary to cope with workload and to reduce exposure risk associated with very frequent changes of PPE;
4. Extended use of gowns in confirmed COVID-19 cohort areas may be considered for HCWs engaged in low contact activities although for these activities, a disposable apron is often appropriate;
5. Where HCW are engaged in high contact activities, then gowns should be changed between patients, to minimise risk of cross-transmission of other pathogens commonly encountered

in healthcare settings (e.g., antimicrobial resistant organisms, such as CPE, MRSA, VRE or *C. difficile*);

6. If PPE is wet, soiled or torn it must be doffed and disposed of;
7. It is not appropriate to continue to wear PPE that was used in care of patients with COVID-19 when moving between wards or units or when moving from a clinical care area to a designated office space or break area on the ward or unit;
8. Extended use of gloves is not appropriate. Gloves must be changed and hand hygiene performed between patients and sometimes between different care activities on the same patient;
9. Double-gloving is not appropriate in the context of caring for patients with COVID-19;
10. Cleaning gloves with ABHR is not appropriate. If there is a concern that gloves are contaminated, they must be removed safely, hand hygiene performed and a fresh pair of gloves donned if required to continue that task.

Types of PPE

Gloves: All gloves are disposable, single-use items. Gloves can be made of latex or non-latex material such as nitrile. Nitrile gloves are used routinely in the HSE to avoid risks associated with latex hypersensitivity. Gloves should be powder free. Vinyl gloves should not be used unless there are no acceptable alternatives as they are prone to leakage and tearing. Polythene i.e. plastic gloves are not suitable for clinical use.

Disposable plastic aprons are recommended to protect staff uniform and clothes from contamination when providing direct patient care and when carrying out environmental and equipment decontamination. Disposable plastic aprons are suitable for low contact activity.

Fluid resistant gowns are recommended when there is a risk of extensive splashing of blood and or other body fluids, and a disposable plastic apron does not provide adequate cover to protect a HCW's uniform or clothing.

Fluid resistant coveralls provide equivalent protection to fluid resistant long-sleeved gowns if worn, donned and doffed correctly. However, they can be more challenging to doff correctly and specific training is required for HCW who may need to use these items of PPE.

If **non-fluid resistant gowns** are used and there is a risk of splashing with blood or other body fluids, a disposable plastic apron should be worn over or underneath the gown.

Eye protection: healthcare workers should wear eye protection as well as a well fitted respirator mask (FFP2) when directly caring for patients with possible or confirmed COVID-19. Use of eye protection is not necessary as a routine every time a healthcare worker enters the room of a person with COVID-19 or a COVID-19 cohort area and the absence of eye protection does not of itself represent a breach of appropriate PPE use, although it is significant if the healthcare worker was delivering personal care to a coughing or sneezing patient.

Face visors as an alternative to face masks in low-risk scenarios

In low risk situations, such as when caring for people who are not suspected or confirmed to have COVID-19, and where the wearing of respirator mask or a surgical face mask by the HCW creates a significant barrier to the delivery of effective clinical care, then use of a correctly worn face visor rather than a mask may be considered. The visor or face shield should be sufficient in width and length to cover the face (e.g. extends below the chin and provides cover to the side). For use in a healthcare setting, the visor or face shield should conform to the required specifications (EU PPE Regulation 2016/425, EN 166, ANSI/ISEA Z87.1 or equivalent).

However, as face visors are generally not considered to afford the same level of protection as a mask against droplet transmitted infection, they should not be worn as a substitute for a surgical mask in high risk scenarios, for example, when caring for a patient with suspected/confirmed COVID-19 or their contacts.

When performing or assisting with an AGP on a person with suspected/confirmed COVID-19 a respirator mask is always required in addition to a visor or goggles.

Surgical face masks

The WHO recommends surgical facemasks should have good breathability, internal and external faces which can be clearly identified, and meet EN14683 standard for Type II or higher. This applies to masks used by HCWs and patients.

Type IIR masks should be worn where there is a high risk of splashing by bodily fluids for example in the operating theatre, critical care unit and emergency department setting, where a patient's condition may be unstable or acutely deteriorating.

Tips for surgical face masks:

1. The mask must be donned appropriately, to allow for easy removal without touching the front of the mask;
2. Must cover the nose and mouth of the wearer;
3. Must not be allowed to dangle around the HCW's neck;

4. Must not be touched once in place;
5. Must be changed when wet or torn or if removed to eat, drink or use a phone;
6. Perform hand hygiene after the surgical face mask is removed.

Appendix 1 sets out Preliminary Guidance on Facial Hair & Respiratory Protection in the healthcare setting in the context of COVID-19 and other pathogens transmitted by the same route

Respirator masks

1. Respirator masks are routinely recommended for the care of patients with known airborne infectious diseases, including; varicella (chickenpox) and measles viruses and pulmonary tuberculosis (TB);
2. Respirator masks should continue to be worn by healthcare workers in all settings where they are caring for patients with suspected or confirmed COVID-19.
3. Respirator masks should also be worn in settings where the infection prevention and control team advice indicates that there is a high risk that patients with unsuspected COVID-19 are likely to be present.
4. SARS-CoV-2 is primarily transmitted to those in close proximity to an infectious person (droplet route). Transmission over longer distance (airborne transmission) can also occur in some circumstances. Accounts of experience in hospitals in Ireland since the dissemination of the Alpha, Delta and Omicron variants are a cause for concern in particular in relation to use of high flow oxygen devices (an AGP);
5. Airborne spread is a particular risk when AGPs associated with an increased risk of infection are performed. Vaccination of staff and booster vaccination is critical to protection in that context. In addition, respirator masks (FFP2 masks or other appropriate respiratory protection) and eye protection are required in all cases;
6. Check to determine if respirator masks are fluid repellent. If respirator masks are not fluid repellent, additional protection, such as a visor, is required in situations where there is a splash risk.

Valved Respirator masks

Valved respirator masks should generally not be used. The purpose of a respirator's exhalation valve is to reduce the breathing resistance during exhalation. The valve is designed to open during exhalation to allow exhaled air to exit the respirator and then close tightly during inhalation, so inhaled air is not permitted to enter the respirator through the valve. A person who may have COVID-19 should not wear a valved respirator, because there is a possibility that exhaled particles may leave the respirator via the valve and enter the surrounding environment.

A recent UK NHS Patient Safety Alert has highlighted the risk of the use of valved respirator masks in the theatre environment, where the unfiltered exhaled air of the wearer can contaminate the

surgical field and result in serious infections.

Face coverings - patients

Patients and anyone accompanying them arriving at the hospital should be offered a surgical mask. Some patients may have a strong preference for wearing their own mask. Provided the mask is visibly, clean, intact and completely covers the nose and mouth of the wearer it is reasonable to accept this preference.

Patients who present with respiratory symptoms should be asked to wear a respirator or surgical facemask, pending clinical assessment. If they are tested for SARS-CoV-2, they should continue to wear the mask if tolerated until their respiratory viral test result is available to inform an assessment of further precautions required.

Patients in whom there is no clinical suspicion of COVID-19, but who are tested for COVID-19 for surveillance purposes should be encouraged to continue to wear a respirator or surgical face mask as tolerated until the admission test result is available, if it is feasible to do so.

Patients accommodated in a single room are not required to wear a mask while in the room, but should wear it when outside of the room if they can do so.

Patients accommodated in multi-occupancy accommodation are not required to mask while in their bed space, as it would likely not be feasible for all patients in that space to wear a mask at all times (for example during eating, drinking, sleeping, patients with behavioural disturbance or underlying respiratory conditions etc.).

However, if a patient expresses their preference to wear a mask for most of the time while they are accommodated in multi-occupancy accommodation, they should be facilitated to do so with a respirator mask or surgical mask as appropriate. Patients who are leaving their bed-space in a multi-occupancy accommodation should be asked to wear a mask if tolerated until they return to their bed-space.

In the event that patients refuse to use a mask in situations where they are recommended healthcare workers should try to determine the nature of the person's objection and ensure that they understand that they are being asked to wear the mask to protect patients and staff. If they insist that they will not wear a mask, consider if they are willing to wear a visor which may reduce risk to some degree. Patients cannot be refused care on the basis that they decline to wear a mask. If that situation arises the risk must be managed by other elements of good infection prevention and control practice. If patients and staff have been vaccinated the risk to staff related to patient

non-adherence to mask use is likely to be reduced.

Fit testing

The Health and Safety Authority indicate that where a risk assessment indicates that HCW need to use a close-fitting respirator mask for their protection that every effort should be made to comply with the requirement for fit testing of the worker, as far as is reasonably practicable. When fit testing of all staff is not immediately possible, then fit testing should be prioritised for those at greatest risk. Priority groups for fit testing include the following:

1. HCW most likely to be involved in performing AGPs, in particular endotracheal intubation;
2. HCWs most likely to have the most prolonged exposure to COVID-19 in settings where AGPs are performed.

Tips for respirator facemasks:

1. The wearer must undertake a fit check each time a respirator is worn, to ensure there are no gaps between the mask and face for unfiltered air to enter;
2. Respirator masks can remain effective when worn continuously for extended periods of time, but must be changed if wet or damaged.

Powered Air Purifying Respirators (PAPRs)

A powered air purifying respirator (PAPR) encloses 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, a PAPR does not require a seal against the skin. The protection afforded is not reduced by facial hair. PAPRs are not generally used in Ireland and are not widely available.

There may be significant challenges in relation to their use. Staff training on safe use and cleaning and maintenance is required, in accordance with the manufacturer's instructions, along with issues of user comfort. A recent UK NHS National Patient Safety Alert [NatPSA/2021/009/NHSPS] adds to what is known of the risk of contamination of the surgical field posed by use of valved respirator masks or PAPR in theatre environments, and specifically to the risk of the exhaled air of the wearer, which is unfiltered, linked to infections in patients undergoing cardiac and brain surgery. (More details at https://www.england.nhs.uk/publication/national-patient-safety-alert-infection-risk-when-using-ffp3-respirators-with-valves-or-powered-air-purifying-respirators-paprs-during-surgical-and-invasive-procedures/).

Where a health care facility may need to use Powered Air Purifying Respirators (PAPRs), a checklist to support their use is available on the HPSC website, and includes consideration of the risk above:

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

hecklist%20to%20support%20a%20health%20care%20facility%20using%20Powered%20Air%20Purifying%20Respirators.pdf

Theatre caps/hoods and shoe covers

There is no evidence that contamination of hair is a significant route of transmission for SARS-2-CoV. Outside of surgical procedures involving high-speed drilling, where there may be a risk of splashing and extended coverage is desirable, (for example neurosurgery), head covers are not required and are not recommended.

For a HCW with long hair, hair should be tied up and off their face when working in clinical settings.

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Theatre shoe covers are not recommended outside of the operating theatre area.

Plastic/Perspex 'intubation boxes'

The use of plastic 'intubation boxes' is **not recommended**. If they are considered for use in a healthcare facility, the facility must perform a risk assessment and have a defined process for the use of this item of equipment and for the performance and tracing of decontamination of the item between each patient use. The policy should also address storage of these items when not in use.

Recommendations for the use of Personal Protective Equipment (PPE) during COVID-19 pandemic

For current guidance please see
https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/ppe/

Donning PPE

Where to DON PPE

1. Don PPE in a designated area. This may be outside a room or a cohort area. If the entire ward is a cohort ward and extended used of PPE is adopted, then an area should be designated for this, at or near the entrance to the ward;
2. Adequate supplies of ABHR and PPE should be available and stored securely;
3. Placement of a mirror in the donning area should be considered, so a HCW can use the mirror to verify the integrity of their PPE and help to identify potential breaches in PPE, in the

absence of a colleague being present to check;
4. PPE must be comfortable and secure before leaving the donning area;

Signage highlighting key steps in the donning sequence, including instructions how to undertake a fit check of a respirator mask, where its use is indicated, must be clearly displayed.

What to do before you put on your PPE

1. Remove all jewellery;
2. Remove mobile phones and pagers from pockets/belts and leave in a safe place;
3. Ensure you are well-hydrated and have availed of toilet facilities (in particular where prolonged patient care is anticipated);
4. Tie hair neatly back away from the face;
5. Perform hand hygiene.

Sequence of donning PPE

Videos on donning procedures are available on www.hpsc.ie

1. Put on disposable gown and secure with ties;
2. Put on surgical face mask, secure ties/straps to crown of the head. Fit flexible band to bridge of nose. Fit snug to face and below chin;
3. If ear loop masks are used fit flexible band to bridge of nose. Fit snug to face and pull the loops over the ear lobes;
4. Put on a respirator (FFP2) instead of surgical mask and fit check when indicated;
5. Please note this will require that the straps are placed to the middle back of head and neck
6. Put on eye protection (if required) – and adjust to fit;
7. Put on gloves – pull glove wrist over the gown cuff;
8. Double gloving is not appropriate in isolation rooms or cohort areas.

Doffing PPE

1. The procedure for removing PPE may vary across organisations, depending on the layout of the facility and availability of PPE;
2. The most important thing when removing PPE is to avoid self-contamination and to pay close attention to hand hygiene.

Where to doff PPE

1. Where a patient is in a **single room with an ante-room** all PPE should be removed and discarded in the ante-room;
2. When a patient is in a **single room with no ante-room,** remove gloves, gown and eye

protection in the patient room. Do not remove the surgical facemask/respirator until outside the patient room;

3. Where patients with confirmed COVID-19 are being cared for in **a cohort area,** the location for doffing PPE will vary depending on the layout of individual facilities.

Sequence of doffing PPE

When all items can be discarded

1. Remove gloves and dispose in healthcare risk waste bin;
2. Perform hand hygiene;
3. Remove eye protection and dispose in healthcare risk waste bin;
4. Remove gown (avoid touching the front of the gown) and dispose in healthcare risk waste bin. (if hands become contaminated for example by touching the front of the gown during removal, perform hand hygiene)
5. Remove mask/respirator. Grasp and lift mask ties from behind your head and remove surgical facemask or respirator mask if worn, away from your face;
6. Alternatively, if ear loop face masks are worn, remove by grasping each loop on either side of the face beneath the ear lobes and gently pull the bands out and off the ear lobes away from your face;
7. Avoid touching the front of the mask or respirator and use ties to discard in healthcare risk waste bin;
8. Perform hand hygiene.

Duration of Transmission-based Precautions in Acute Hospital

People in the community with COVID-19 are now asked to self-isolate for **7 days from the date of onset of symptoms, provided symptoms have substantially or fully resolved for the final 2 days of the period**.

In the case of an asymptomatic COVID-19 infection in a person in the community (for example, a person, tested as a close contact of a case or as an outpatient prior to a scheduled procedure), the person should self-isolate for **7 days from the day the sample was collected provided they remain asymptomatic**.

For hospitalised patients, the period of precautions is extended beyond 7 days because of the specific risks associated with that setting. The duration of transmission based precautions should not be less than 10 days in that setting. If the patient has no or minimal residual symptoms for two days the patient can exit transmission based precautions on day 10 based on risk assessment. Extension to 14 days may be appropriate based on a hospital's experience and

assessed risks and is generally appropriate in people who are not vaccinated, profoundly immunocompromised, in critical care areas or where a person requires high flow oxygen or similar respiratory support. This also applies to residents of long-term residential care facilities (LTRCF) and or patients who may intend to transfer to LTRCF.

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 symptoms attributed to COVID-19 the infectious period should be considered as not less than 10 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 10 days from the date of detection.

The requirement for extension of the period of self-isolation from 7 days to not less than 10 days is a precautionary measure that is applied to people who are admitted to an acute hospital as patients or LTRCF as residents. It does not apply to people who attend the hospital as out-patients or to people who attend the hospital as nominated support partners or visitors. For children and for others who may be unduly impacted by the extending the period of isolation from 7 to not less than 10 days the requirement for extended isolation may be waived by the IPC team based on risk assessment. Risk assessment may take account of the clinical status of the person, the requirement for respiratory support, the likelihood that they will be in shared space with people with impaired immune function or otherwise at high risk, the vaccination status of the patient, the likelihood that the patient has impaired immune function.

Repeat testing for SARS-CoV-2 at the end of the intended isolation period is generally not required. However, repeat testing at the end of the intended isolation period may be appropriate in particular settings in view of recent experience.

Repeat testing should be considered in particular if the person has:

1. had severe illness;
2. is immunocompromised;
3. has ongoing respiratory symptoms that differ significantly from their baseline;
4. requires high flow oxygen or similar device for continuing respiratory support;
5. is being moved into a large multi-bed area;
6. If repeat testing is performed in that context result interpretation should take account of Ct value relative to the previous results on that patient. It is important to note that SARS-CoV-2 ribonucleic acid (RNA) remains detectable in respiratory secretions of some patients for extended periods (months in some cases). This does not equate to presence of viable virus.

However, if repeat testing is performed under the circumstances outlined and the Ct values remains low extension of the period of isolation to 21 days may be appropriate.

Note some patients who meet the above criteria (10 days' post onset) have a persistent cough. There is no evidence that such patients pose a specific infection risk or that transmission-based precautions need to be continued in all such cases. However, an extended period of contact and droplet precautions may be considered in some such cases if there is clinical concern and in particular if the patient is supported by a high flow oxygen device or similar. In such cases, the period of contact and droplet precautions should not be extended beyond 28 days.

Persons who attend hospital for general outpatient or inpatient care who have had laboratory-confirmed COVID-19 do not generally require transmission-based precautions if the following criteria are met:

1. the infectious periods appropriate for their COVID-19 status has passed (7 days if not hospitalised and not less than 10 days if hospitalised or resident in a LTRCF) (note; if date of onset of symptoms is not clear or the patient had asymptomatic infection, use the date on which the sample for testing was taken);
2. there are no other indications for applying transmission-based precautions, for example they are not colonised with a multi-drug resistant organism.

Patient contacts should be monitored for symptoms and tested if these develop; otherwise, testing is not generally required, unless the patient is in a particular risk group or requires high flow oxygen support, or other invasive or non-invasive respiratory support or on admission to critical care areas. If testing is assessed as necessary, it should be done at intervals informed by local data, or in the absence of this, at day 0, 5 and 10 while the person remains in hospital. Contacts should be tested if they develop symptoms while they remain inpatients. Testing of contacts who have had COVID-19 within the previous 3 months and of contacts who are not in at risk groups is not generally required.

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 of infections that may normally be transmissible primarily by the droplet route. A list of AGPs and recommended PPE is outlined at a link provided 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 COVID-19, 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 HCWs, ensuring that patients, visitors, and others in the healthcare setting are not exposed. For example, in a single room, with ventilation to the greatest degree practical and the door kept closed, away from other patients and staff.
3. The risk associated with performing procedures categorised in Table 3 as "Plausible hypothesis- no evidence" outside of a negative pressure or neutral pressure room is low if performed by vaccinated staff with appropriate infection control precautions including use of appropriate PPE.
4. Essential personnel only should be present in a room/area where an AGP associated with increased risk of infection is being performed and those personnel should be fully vaccinated.
5. HCW 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 be fully vaccinated and must wear the recommended PPE for an AGP situation for the duration of the procedure and for 20 minutes afterwards in rooms with mechanical ventilation and for up to one hour in a room with natural ventilation.

For the current list of aerosol generating procedures please see the following link:
https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/aerosolgeneratingprocedures/

Cleaning an area after an AGP has been performed on a patient with suspected or confirmed COVID-19

1. Clearance of infectious particles after an AGP is performed will depend on the mechanical/natural ventilation and air changes per hour (ACH) 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.

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 since the dissemination of the alpha and delta variants and 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. A recent update from the European Centre for Disease Control 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 staff should use respirator masks when caring for patients with suspected or confirmed COVID-19 and it is prudent to maximise ventilation 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 clinical evidence that 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 staff; 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 reducing/lowering concentrations of infectious aerosols in a single space however they have not been shown to reduce the risk of patients acquiring infection with COVID-19 in a healthcare setting;
7. Some healthcare settings have found it helpful to use carbon dioxide (CO_2) 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.

Appendix 1 Preliminary Guidance on Facial Hair & Respiratory Protection in the healthcare setting in the context of COVID-19 and other pathogens transmitted by the same route

Background

Healthcare workers (HCWs) are at increased risk of exposure to a variety of respiratory hazards including transmissible respiratory diseases. One element of protecting HCWs against infectious respiratory hazards is the effective use of specific items of personal protective equipment (PPE). Surgical face masks and respirator masks are the most commonly used types of PPE in this context.

1. Surgical masks

Surgical masks are intended to protect the wearer against the mucosa of the nose and mouth and most of the surrounding skin from impact of respiratory droplets originating from the respiratory tract of the patient. They are also intended to protect the patient from exposure to potentially infectious droplets from the healthcare worker. The degree of protection afforded is related to the properties of the mask and how it is applied in particular the fit of the mask to the face. Facial hair that is sufficient to prevent the mask from fitting flush against the skin of the face may result in reduced protection against droplet impact.

2. Respirators

In this context, respirators are intended to provide protection from infectious agents spread long-range by inhaled respiratory particles (aerosols). There are two types:

(a) Respirator masks (flat or cone shaped, FFP2 or FFP3)

These are disposable masks and are intended to protect the wearer against inhalation of infectious aerosols in addition to protection against droplet impact. The degree of protection afforded is related to the properties of the mask and how it is applied, in particular the fit of the mask to the face. The filtration of aerosols is entirely dependent on forcing inhaled air to pass though the fabric of the mask. This works if the seal of the mask against the face prevents air circumventing the mask. Respirator masks that do not fit flush because of facial hair along the sealing area of the respirator cannot be considered as providing adequate protection against exposure to aerosols.

Fit testing of respirator masks and the fit checking of the mask each time used is required to ensure that the mask fits properly to the wearers face shape, with no gaps between the mask and face for air to escape unfiltered. The Health and Safety Authority indicate that where a risk assessment indicates that healthcare workers need to use a close-fitting respirator mask for their protection that every effort should be made to comply with the requirement for fit testing of the workers, as

far as is reasonably practicable. When fit testing of all staff is not immediately possible, then fit testing should be prioritised for those at greatest risk.

(b) 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. Staff 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 staff 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
    a. 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.

Notes:

1. 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.
2. 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/

Appendix 2 Admissions, transfers and discharges to and from RCFs

Note that testing of asymptomatic residents regardless of vaccine status on transfer or admission, is generally not required.

Testing of asymptomatic residents on admission/transfer may remain appropriate based on local risk assessment for those on non-invasive respiratory support.

There is no requirement to limit the movement of a resident within the LTRCF after return from an outing or hospital attendance regardless of the duration of the absence unless some significant and unanticipated exposure risk occurred or there is a specific public health or IPC recommendation that requires limitation of movement.

Introduction

Long-term residential care facilities (LTRCF) are a critical part of health and social care services. LTRCFs should put in place clear processes that facilitate the return of residents from an acute setting and the admission of new residents, where it is clinically safe to do so.

It is recognised that accepting admission or transfer of residents poses a risk of introducing COVID-19. However, at this stage of the pandemic response, the level of immunity among staff and residents is high, from vaccination, booster vaccination and from COVID-19 infection and as a result the risk of harm from introduction of COVID-19 is greatly reduced.

Given the uptake of vaccination in the population most residents transferring to a LTRCF are likely to have had booster vaccine. If an unvaccinated person is transferring from an acute hospital they should be offered the first dose of vaccine before transfer. While the vaccine should ideally be administered as long as possible in advance of transfer, there is no requirement to delay transfer of a person who is otherwise ready for discharge to allow time for an immune response to the vaccine. Arrangements to complete the vaccination in the LTRCF are essential.

In all instances, careful attention to standard precautions will assist in minimising risk of infection to residents and staff. Key elements include; hand hygiene, respiratory hygiene and cough etiquette, use of personal protective equipment (PPE), for example wearing disposable gloves when in contact with blood or other body fluids (other than sweat), non-intact skin or mucus membranes and regular environmental cleaning.

It is essential that residents and clients and their significant persons are informed of the issues and risks of decisions related to their care and that their preferences are taken into account in applying this guidance.

Background on testing for COVID-19

The key point about testing is that interpretation is not straightforward

1. **A test result that says not-detected or "negative" does not prove the person is not infectious to others**
2. **A test result that says a virus is detected does not prove the person is still infectious to others**

Over the course of the COVID-19 pandemic, there has been significant learning about the role of testing for COVID-19 and its role in determining levels of asymptomatic infection and tracking spread of infection, especially in congregated settings, such as LTRCF.

A single test may be reported as not-detected or "negative" in a substantial proportion of people with infection. The test is more likely to miss infection in people with pre-symptomatic or asymptomatic infection. Therefore, a not-detected or "negative" test makes COVID-19 infection less likely, but it does not prove the person is not infected.

Equally, for those who have been infected and infectious with COVID 19, a continued positive test result does not mean they are still infectious to others. Some people have a positive test for weeks after onset of symptoms, but latest evidence shows they are very unlikely to spread infection.

Note that if a person is detected by testing and subsequently develops symptoms the 10 days is counted from the date of symptom onset (not the sample date); however, if they do not develop symptoms the 10 days is counted from the sample date.

The period of 10 days continues to apply in this setting although the infectious period is now 7 days for people who do not require hospitalisation for care of COVID-19 and who are not resident in LTRCF. Note that repeat testing at the end of the isolation period is generally not appropriate though exceptions may arise in the context of discussion with Microbiology, Infectious Diseases or Public Health Clinician.

The role of COVID-19 testing in assisting with decision-making regarding transfers to congregated settings

1. Testing of asymptomatic residents regardless of vaccine status on transfer or admission, is generally not required.
2. Testing of asymptomatic residents on admission/transfer may remain appropriate for those on non-invasive respiratory support.
3. Where surveillance testing is required and is not performed before admission, it should be carried out within one day of admission.
4. Irrespective of testing, all residents should be assessed before admission to determine if they have clinical symptoms suggestive of COVID-19
5. People may have been identified as COVID-19 contacts in other settings, such as in hospitals. Such people may transfer to an LTRCF if they have been testing by PCR and SARS-CoV-2 virus has not been detected. No restriction of movement is required as long as they remain asymptomatic.
6. For patients or residents who decline or are clearly distressed by collection of a nasopharyngeal sample a deep nasal sample (also known as a mid-turbinate swab) is often less uncomfortable and they consent to that. Deep nasals swabs should generally be used for surveillance testing on people who require very frequent testing and for those in whom a nasopharyngeal sample collection is difficult or distressing. An anterior nasal swab is NOT a suitable sample. Some residents may decline testing, or may find the process too distressing and that testing may not be appropriate in every situation (Refer to DOH Guidance on Ethical Considerations Relating to Long-Term Residential Care Facilities in the context of COVID-19).

Procedure for Testing of People Pre-transfer/Admission to a LTRCF, if required

1. For people requiring testing prior to being transferred from an acute hospital to a LTRCF, the hospital should arrange for the person to be swabbed in the three days before transfer.
2. If a person requiring testing is being admitted to the LTRCF from home, where possible, the GP should arrange for the person to be swabbed within the three days before admission. This can be done using Healthlink. If the person cannot travel to the test centre, a home test can be ordered by clicking on the 'no transport available' option as shown on the screenshot below (Figure 1).
3. If a test pre-admission is required and cannot be arranged, including for urgent admissions, the person should be admitted as planned.The facility can arrange swabbing after admission. This can be done by the person's own GP or the GP/Medical Officer who provides medical care for the residents in the facility.

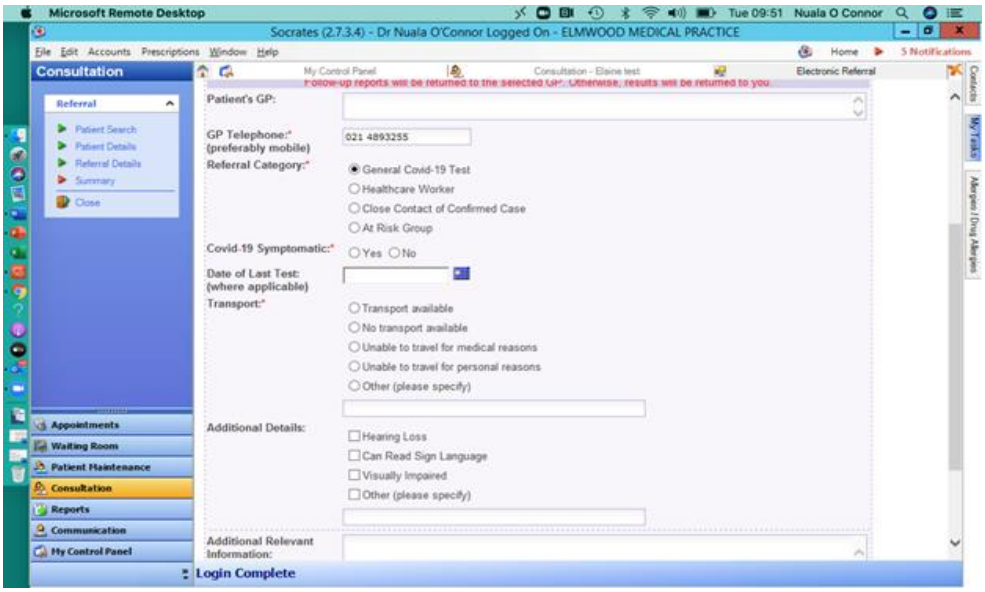

Figure 1. Snapshot of Health link web page **Requirements for placement of the person as part of transfer protocols**

Planning

1. The LTRCF should undertake a risk assessment ahead of all transfers or new admissions to ensure sufficient resources are available within the LTRCF to support physical distancing and placement of residents.
2. Where possible the use of single rooms in LTRCFs should be prioritised for symptomatic residents.
3. For those LTRCFs providing a blend of longer-term nursing home and short-term respite or convalescence care, it is advised to consider where the longer and shorter-term residents

will be accommodated and where it is feasible, to try and place residents for shorter-term accommodation in an area separate to those for longer-term accommodation.

4. Existing residents should generally not be required to move from their room / accommodation in order to facilitate the creation of new areas to facilitate transfers.
5. Careful consideration should also be given to the consequences of closing facilities/rooms within a service for the purpose of having an isolation area should a need arise – the potential harms of such decisions should be balanced against the likely requirement.
6. 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 COVID-19 (one or more open outbreaks) is managed as a COVID-19 Contact after transfer based on risk assessment – see below. In this context Public Health may also recommend a COVID-19 test around day 5 to enhance detection of hospital acquired infection.

Transfer of people with COVID-19

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. Such transfer should not proceed if the receiving LTRCF has no other residents with infectious COVID-19 at the time.
2. <u>In particular, existing residents from a LTRCF</u> who require transfer to hospital from the LTRCF for assessment or care related to COVID-19 acquired in the LTRCF should be allowed to transfer back to that LTRCF following assessment / admission, if clinically fit for discharge, and risk assessment with the facility determines there is capacity for them to be cared for there, with appropriate isolation and where that transfer represents the most appropriate place of care for the resident (e.g. ongoing need for palliative care).
3. If the resident in an LTRCF has been diagnosed with COVID-19 while in hospital, it is important to assess if the person was infected in the LTRCF before transfer to the hospital or if this is a hospital-acquired infection. If it is likely that infection was acquired in hospital and there are no other known cases of COVID-19 in the LTRCF, transfer back to the LTRCF should be delayed until the resident is no longer infectious to others.
4. The public health team should be notified immediately where newly-diagnosed COVID-19 is assessed as acquired within a LTRCF.
5. In all instances the discharging hospital should provide the LTRCF with the following information on the arrival of the resident:

    a. The date and results of any COVID-19 tests (including dates of tests reported as not-detected)
    b. The date of onset of any symptoms of COVID-19

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 follow-up treatment or monitoring required

Residents who become symptomatic during their stay in the LTRCF

1. Following transfer/admission to a LTRCF, the resident should be evaluated by their doctor if they become symptomatic, including changes in the resident's overall clinical condition and a viral swab for SARS-CoV-2 sent for testing. **They may also require testing for other viruses, in particular influenza virus.**
2. The rationale for this recommendation is that, in the context of a pandemic, there may have been contact between the resident and HCW or other people who may have had COVID-19 infection, but who may have been in the pre-symptomatic incubation period or have had minimal symptoms/been asymptomatic at the time. In that case, there would be an associated risk of unrecognised onward transmission to the resident. They may also have been exposed to other respiratory viruses.

Cessation of new admissions to a facility during an outbreak of COVID-19 in a LTRCF

1. Following the declaration of an outbreak within a LTRCF, admissions of new residents to the facility (i.e. residents not previously living in the LTRCF) should generally be suspended.
2. In practical terms the RCF can resume normal function once there is reasonable confidence that active transmission has ceased. Seven to ten days after the most recent case was detected is a reasonable general guide.
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 (e.g. ongoing need for palliative care).

Transfers from LTRCF to an acute hospital

1. 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 COVID-19 positive or suspected COVID-19 resident AND where there is a suspected or confirmed COVID-19 outbreak in the LTRCF.

2. People with COVID-19 do not require to be hospitalised for the full period when transmission based precautions is required if they are clinically fit for discharge, if infection was acquired in the LTRCF or if the LTRCF already has cases of COVID-19 and the LTRCF has appropriate facilities and capacity for isolation and can support care.
3. Residents do not require isolation on return to their LTRCF following hospital transfer to facilitate short investigations (e.g., diagnostics, haemodialysis, radiology, outpatient appointment).

Table Transfer/admission of a resident to a LTRCF

CLINICAL SCENARIO	RECOMMENDED PRECAUTIONS ON ARRIVAL TO LTRCF	PRE-ADMISSION TEST FOR SARS-CoV-2 (COVID-19)	TIMING OF TRANSFER TO LTRCF	DAY OF TRANSFER
CONFIRMED COVID-19 & will be still infectious to others on planned date of transfer (less than 10 days since onset/test date note extension to 14 days if not boosted)	Transmission-based Precautions for not less than 10 days from date of onset of symptoms and with minimal symptoms or symptoms resolved for the last 2 of those days. The period is extended to 14 days if they are eligible for booster and have not had booster.	Not required, as already confirmed COVID-19	**LTRCF has other resident(s) with COVID-19:** Transfer when fit for discharge to LTRCF AND provided LTRCF can meet care needs **LTRCF has no other resident with COVID-19 -** Remain in hospital until no longer infectious to others	Confirm date of onset/first positive test result Confirm date last febrile
CONFIRMED COVID-19 & **no longer infectious to others (no longer subject to transmission based precautions)**	No requirement for Transmission based Precautions or restricted movement	Testing not required as already confirmed COVID-19	When fit for discharge to LTRCF	Confirm date of onset/first positive test result
ASYMPTOMATIC Transfer/new admission	No requirement for Transmission based Precautions or restricted movement **[may be exceptions based on risk assessment]**	Testing generally not required	When fit for discharge to LTRCF	Confirm details of vaccination Ensure no new symptoms

Appendix 3 Respiratory/Cough Etiquette

Appendix 4 Healthcare Risk Waste

Appendix 5 Nominated Support Partner Access in Maternity Services[1]

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 COVID-19 related risks do not differ materially between vaginal delivery and delivery by Caesarean Section therefore COVID-19 related concerns 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 staff, the home birth midwife/SECM should be vaccinated, including booster and not be subject to any requirement for self-isolation or restricted movement.

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 or restricted movement.

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 COVID-19 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 6 Point of Care Risk Assessment

Point Of Care Risk Assessment (PCRA)

Infection prevention & control (IPC)

To be carried out before each patient/client interaction

IMPORTANT Check patient's /client's symptoms /MDRO status	Does the patient have unexplained rash, cough, sneezing / unexplained diarrhoea / fever or known MDRO. Suspected or confirmed droplet (eg influenza, meningitis) or airborne illness (e.g. chicken pox, measles, MDRX TB)	If yes:	PPE (as per below) determined by level of anticipated contact and type of activities. For suspected/confirmed droplet/airborne illness - medical (droplet) or respirator (airborne) mask as minimum
HANDS Perform hand hygiene as per WHO 5 moments	Can my hands be exposed to blood, body fluids, non intact skin, mucous membranes or contaminated items	If yes:	Don gloves
MUCOUS MEMBRANES	Will I be exposed to a splash, spray, cough, sneeze while I am within 2 metres of a patient/client	If yes:	**ADD** Facial protection (includes mask & goggles or visor)
SKIN/CLOTHING	Will my skin/clothing come in direct contact with blood, body fluids, non intact skin or items contaminated with body fluids	If yes:	Low contact activity = apron High contact activity = gown
IF CONDUCTING AN AEROSOL GENERATING PROCEDURE	Aerosol generating procedure (AGP) Does the patient have a suspected droplet/airborne illness or an emerging respiratory pathogen	If yes:	**ADD** FFP2/3 respirator

REMEMBER: Hand Hygiene (WHO 5 moments) first and last in all cases to protect patients and yourself

RESIST

Adapted from Nova Scotia Health authority/IWK Health Centre, Canada

Version July 2022

Appendix 7: How to use a Point-of-Care Risk Assessment (PCRA) for Infection Prevention and Control

The PCRA is an element of routine practice which should be conducted *before* every patient/client/resident interaction by a healthcare worker (HCW) to assess the likelihood of exposing themselves and/or others to infectious agents/transmissible microorganisms.

This PCRA supports the selection of appropriate actions and additional Personal Protective Equipment (PPE) to minimise the risk of exposure in addition to any Infection Prevention and Control (IPC) recommendations already in place.
This is a general tool, and risk assessments may vary from person to person.

Step 1
Before each patient interaction, a healthcare worker must assess the following:

1. PATIENT

- What are the patient's symptoms (e.g., respiratory symptoms, e.g. coughing, unexplained fever, rash, enteric symptoms, diarrhoea)?
- Are there additional precautions (droplet, contact, airborne) in place?
- Has the patient a history of multi-drug resistant organisms (MDROs) etc.?
- Is the patient well, independent and able to perform hand hygiene and practice respiratory etiquette etc.?
- Has the patient been recently screened for infectious symptoms (e.g. triage, review of daily symptom checks)?

2. TASK

- What type of task am I carrying out (e.g., providing direct face-to-face care, potential for contact with blood/body fluids, personal care, performing an aerosol generating procedure (AGP), non-clinical interaction)?
- Is additional equipment required to safely carry out the task (standard precautions, e.g., use of dressings, provide tissues, emesis basin)

3. ENVIRONMENT

- Are there potential hazards that may impact my task (e.g. physical clutter)?
- Is there a risk to/from other individuals (e.g., shared rooms, mobile patients with infectious symptoms)?
- Is there enough space for physical distancing to be maintained?
- Can my planned work area be properly clean and disinfected?

Step 2
Choose appropriate actions and PPE including the following:

- **Hand hygiene** (as per WHO 5 Moments)
- **Respiratory etiquette** (e.g. offer the patient a mask, if tolerated, support the patient to use tissues/their elbow to cover coughs)
- **Personal space** (e.g. encourage the patient to respect other's personal space)
- **Implement additional precautions if required** (e.g. droplet and contact precautions as required)
- **Environmental and equipment cleaning and disinfection** (e.g. clean & disinfect environmental surfaces and reusable equipment between each use)
- **Patient placement** e.g. prioritise patients with risks for infectious agents to single rooms (where possible)
- **Select PPE items based on required additional precautions and your own risk assessment, as per the PCRA poster.**

NOTE: Reassessment of PPE requirements should occur as the clinical scenario develops to reflect changes in transmission risk.

For further information, refer to **Draft National Guidelines for Infection and Prevention Control (IPC) 2022, ncec-ipc-guideline-2022-for-consultation.pdf (hse.ie).**

Adapted from Nova Scotia Health authority/IWK Health Centre, Canada