



Current recommendations for the use of Personal Protective Equipment (PPE) in the context of the COVID-19 pandemic

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**Note: If you have any queries on this guidance please contact the AMRIC team at
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Version	Date	Changes from previous version	Drafted by
2.9	31.03.2023	Risk assessment for PPE for AGPs where COVID 19 is not suspected/confirmed. Addition of 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 Change in terminology from COVID-19 to COVID-19/respiratory viral infection	AMRIC
2.8	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.	AMRIC
2.7	18.01.2022	Clarification of terminology regarding respirator masks Note on terminology regarding surgical masks	AMRIC
2.6	29.12.2021	Change to the title of the document to emphasise that it applies to care of all patients in the context of the pandemic Section 5 of the table modified to clarify what is required in clinical areas when caring for person with no clinical suspicion of COVID-19	AMRIC
2.5	23.12.2021	Respirator mask required for all patient care activity Simplification of guidance on surgical mask use Updated information on vaccination; Clarified that extended use of PPE is not required for the purpose of limiting use of PPE Removal of reference to decontamination of items of PPE	AMRIC
2.4	05.07.2021	Updated to include definition of vaccine protection. Updated to include COVID 19 recovery and immunity extended from 6 months to 9 months Increased reference to ventilation	AMRIC
2.3	09.02.2021	Updated with statement that vaccination does not change the requirement for precautions - done Changes to the section on transmission to reflect recent experience and emergence of new variants Updated to align with recommendation regarding FFP2 mask availability for HCW caring for suspected or confirmed COVID19 patients Updated with recommendations for PPE use when vaccinating	AMRIC
2.2	22.09.2020	Updated to reflect HSE decision of change in guidance on mask use to include use in public areas	AMRIC
2.1	26.05.2020	Updated to reflect Decision by NPHET dated 22nd April 2020 in relation to use of surgical masks in healthcare settings; Surgical masks should be worn by healthcare workers when they are providing care to people and are within 2m of a person, regardless of the COVID-19 status of the person Surgical masks should be worn by all healthcare workers for all encounters , of 15 minutes or more, with other healthcare workers in the workplace where a distance of 2m cannot be maintained	HPSC



Table of Contents

Introduction.....	4
Vaccine Protection	4
COVID-19 and Immunity after Recovery	4
Point of care risk assessment	5
Minimising exposure risk.....	5
Actions for Healthcare workers	5
Actions for the healthcare facility	5
Personal protective equipment, while important, is the last line of defence	6
Types of PPE	12
Extended use of PPE.....	14

Notes on terminology relating to masks

The term “respirator mask” is generally used in this document. In most circumstances this will be an FFP2 mask, but respirator masks that meet or exceed the filtration standards of FFP2 masks are also appropriate. Powered Air Purifying Respirators (PAPRs) also meet the requirement for respiratory protection.

The terms surgical mask, medical mask and medical grade mask are widely used and are interchangeable, the term surgical mask is used in this document.



Introduction

Infection Prevention and Control practice supported by appropriate use of PPE is important to minimise risk to patients of healthcare associated COVID-19 and other respiratory viruses. These measures are equally important in controlling exposure to occupational infections for healthcare workers (HCWs). Traditionally, a hierarchy of controls has been used. The hierarchy ranks controls according to their reliability and effectiveness and includes engineering controls, administrative controls, and ends with personal protective equipment (PPE). In the context of risk of respiratory infection, PPE adds an extra layer or protection in the context of scrupulous attention to hand hygiene, respiratory hygiene and cough etiquette, ventilation and environmental hygiene.

Vaccination for COVID-19 began in Ireland in late December 2020 and booster vaccination programmes since autumn 2021. Most frontline healthcare workers have now been vaccinated and have had a booster vaccination. The impact of vaccination was apparent in a dramatic reduction in the number of new diagnoses of COVID-19 in acute hospital healthcare workers from mid-January 2021. It is clear however that the protection afforded to healthcare workers by vaccination is not absolute and wanes with time and emergence of new variants. Therefore, it remains prudent to avoid intense exposure as much as possible. There is evidence that vaccination reduces asymptomatic infection and reduces viral load in those who do become infected. Therefore, risk of spread of infection from vaccinated people is expected to be reduced; however, vaccination may not prevent transmission of SARS-CoV-2 from healthcare worker to patient in all settings. At this time, healthcare workers who are fully vaccinated with booster are advised to adhere to all IPC measures in this guideline in the same way as they did prior to vaccination. This advice will be reviewed regularly on the basis of emerging evidence and experience.

This document should be used in association with the “Draft Guidance on 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>

Vaccine Protection

Current recommendations on vaccination against COVID-19 are in Chapter 5a of the of NIAC Immunisation Guidance click [here](#)

COVID-19 and Immunity after Recovery

It is recommended that healthcare workers who have recovered from COVID-19 continue to follow the same IPC precautions as all other HCWs when in contact with patients to reduce the risk of transmission of COVID-19.



Point of care risk assessment

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

<https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/A3%20Poster%20Resist.final%20online%20version.pdf>

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

Minimising exposure risk

Actions for Healthcare workers

1. Avail of vaccination and booster vaccination that is offered to you;
2. Implement Standard Precautions for infection prevention and control with all patients at all times;
3. Maintain a physical distance of at least 2m from individuals with respiratory symptoms (where possible);
4. Clean your hands regularly as per WHO 5 moments;
5. Avoid touching your face;
6. Promote respiratory hygiene and cough etiquette which involves covering mouth and nose with a tissue when coughing and sneezing, or coughing into the crook of an elbow, discarding used tissue into a waste bin and cleaning hands.

Actions for the healthcare facility

1. Staff should be encouraged to be vaccinated against COVID-19 and to get booster vaccinations;
2. Post visual alerts including signs, posters at the entrance to the facility and in strategic places (e.g., waiting areas, elevators, cafeterias) to provide patients and HCWs with instructions (in appropriate languages) about hand hygiene, respiratory hygiene, and cough etiquette;
3. Instructions should include how to use tissues to cover nose and mouth when coughing or sneezing, to dispose of tissues and contaminated items in waste bins, and how and when to perform hand hygiene;
4. Provide supplies for respiratory hygiene and cough etiquette, including alcohol-based hand rub (ABHR), tissues, and hands-free waste bins for disposal, at healthcare facility entrances, waiting rooms, and patient check-ins;



5. Ensure adequate natural ventilation to the greatest extent practical. The goal is gentle air circulation rather than strong air movements.
6. Use physical barriers (e.g., glass or plastic windows) at reception areas, registration desks, pharmacy windows to limit close contact between staff and potentially infectious patients.

Personal protective equipment, while important, is the last line of defence

1. This guidance applies to all healthcare settings including primary, secondary, tertiary care, ambulance service and vaccination centers;
2. The requirement for PPE is based on the tasks that a HCW is likely to perform;
3. Regarding mask use:
 - a. Surgical or 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.
 - b. Surgical or 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 or respiratory viral infections are likely to be present.
 - c. Healthcare workers in low-risk settings, when caring for those who do not have suspected or confirmed COVID-19 or respiratory viral infection, no longer need to wear a face mask for all interactions with patients .
 - d. Recognising that health care workers' preferences are an important consideration, surgical and respirator masks should continue to be available to healthcare workers in all settings
 - e. Carer staff who live and work with residents in health and social care settings, when caring for those who do not have suspected or confirmed COVID-19 or respiratory viral infection, no longer need to wear a face mask for all interactions .
 - f. HCWs in non-clinical settings where patients are not cared for may revert to general public health guidance and may choose to wear a surgical mask, particularly in busy public areas of healthcare facilities.
4. 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 or respiratory viral infection. These alternatives are likely to be less effective than mask use;
5. PPE should be readily available outside the patient's room or cohort area;
6. Have a colleague observe donning and doffing of PPE where practical;
7. It is especially important that healthcare workers use a well-fitted respirator mask and eye protection for prolonged or close contact or when performing AGPs on possible or confirmed COVID-19 cases.



Table 1: Recommendations for the use of PPE during COVID-19 pandemic

1.0	Non clinical areas such as administrative areas, medical records, staff restaurant and any other area where tasks do not involve contact with COVID -19 patients	
1.1	All Activities	Face masks not generally required. However HCWs may choose to wear a mask
2.0	Reception Areas	
2.1	Administrative activities in reception areas where staff are separated by at least two metres from patients and work colleagues	Face masks not generally required. However HCWs may choose to wear a mask
3.0	Patient transit areas for example corridors, elevators, stairwells, escalators, waiting areas	
3.1	Transfer of patients through public areas	Asymptomatic patients do not need to wear a mask. A patient with COVID-19 or who is symptomatic, should be asked to wear a medical grade mask (surgical or respirator mask) if they can tolerate that Those transferring the patient should wear appropriate PPE as determined by a Point of Care Risk assessment
3.2	All other activities e.g. providing security, moving equipment etc.	Face masks not generally required. However HCWs may choose to wear a mask
4.0	Pathology/Laboratory Areas	
4.1	All activities	Face masks not generally required. However HCWs may choose to wear a mask Additional PPE as per laboratory biosafety <u>guidance</u> .
5.0	Clinical Areas (in each scenario please remember to conduct a Point of Care Risk Assessment)	
5.1	Providing Care	
5.1.1	Patients and service users where there is no clinical suspicion of COVID-19	<ul style="list-style-type: none"> • Standard Precautions • Face masks not generally required, however HCWs may choose to wear a surgical or respirator mask



5.1.2	Patients with no respiratory symptoms and not suspected/confirmed COVID-19/respiratory viral infection who require an aerosol generating procedure*	<ul style="list-style-type: none"> • Standard Precautions • Surgical mask or respirator mask Point of Care Risk Assessment to determine additional PPE
5.1.3	Patients with respiratory symptoms/suspected/confirmed COVID-19/respiratory viral infection who require an aerosol generating procedure*	<ul style="list-style-type: none"> • Standard precautions Respirator mask • Disposable Single Use Nitrile Gloves • Long sleeved disposable gown • Eye Protection
5.1.4	Patients with respiratory symptoms/suspected/confirmed COVID-19/respiratory viral infection who do not require an aerosol generating procedure but do require high contact patient care activities that provide increased risk for transfer of virus and other pathogens to the hands and clothing of healthcare workers.	<ul style="list-style-type: none"> • Standard Precautions • Surgical or respirator mask • Point of Care Risk Assessment to determine additional PPE
5.1.5	Patients with respiratory symptoms/suspected/confirmed COVID-19 or respiratory viral infection where the tasks being performed are unlikely to provide opportunities for the transfer of virus/other pathogens (low contact) to the hands and clothing.	<ul style="list-style-type: none"> • Standard Precautions • Surgical or respirator mask • Point of Care Risk Assessment to determine additional PPE
5.2	Cleaning	
5.2.1	Cleaning where patient is present and has suspected or confirmed COVID-19 or respiratory viral infection	<ul style="list-style-type: none"> • Surgical or respirator mask • Standard precautions including Hand Hygiene • Disposable Plastic Apron • Gloves Household or Disposable Single use Nitrile Gloves • Point of Care Risk Assessment to determine additional PPE
5.2.2	Cleaning where patient is present and but does not have suspected or confirmed COVID-19 or respiratory viral infection	<ul style="list-style-type: none"> • Face masks not generally required. - however staff may choose to wear a mask • Standard precautions including Hand Hygiene • Disposable Plastic Apron

		<ul style="list-style-type: none"> Gloves Household or Disposable Single use Nitrile Gloves Point of Care Risk Assessment to determine additional PPE
5.2.3	<p>Cleaning when patient is not present for example after the patient has been discharged, or the procedure is complete</p> <p>Ensure adequate time has been left before cleaning and area after an AGP has been performed on a patient with suspected or confirmed COVID-19 or respiratory viral infection</p>	<ul style="list-style-type: none"> Face masks not generally required. - however staff may choose to wear a mask Standard precautions including Hand Hygiene Disposable Plastic Apron Gloves Household or Disposable Single use Nitrile Gloves Point of Care Risk Assessment to determine additional PPE
6.0	Internal transfer of patients with suspected or confirmed COVID-19 or respiratory viral infection	
6.1	<p>Accompanying a patient where COVID-19 or respiratory viral infection is not confirmed or suspected between areas within the same facility (e.g. when moving a patient from a ward to radiology / theatre, GP waiting area to assessment room)</p>	<ul style="list-style-type: none"> Appropriate PPE as determined by a Point of Care Risk assessment
6.2	<p>Accompanying a patient where COVID-19 or respiratory viral infection is confirmed or suspected between areas within the same facility (e.g. when moving a patient from a ward to radiology / theatre, GP waiting area to assessment room)</p>	<ul style="list-style-type: none"> Standard Precautions including Hand hygiene Surgical or respirator mask Appropriate PPE as determined by a Point of Care Risk assessment
7.0	External transfer for example between home and dialysis unit, inter hospital transfer, hospital to LTCF	
7.1	<p>Accompanying a patient but no direct contact is anticipated</p>	<ul style="list-style-type: none"> Face masks not generally required. - however staff may choose to wear a mask Hand Hygiene
7.2	<p>Accompanying a patient and likely to have direct contact with a patient who has suspected or confirmed COVID-19 or respiratory viral infection</p>	<ul style="list-style-type: none"> Standard Precautions including Hand hygiene Surgical or respirator mask Appropriate PPE as determined by a Point of Care Risk assessment



7.3	Accompanying a patient and likely to have direct contact with patient where COVID-19 or respiratory viral infection is not suspected or confirmed	<ul style="list-style-type: none"> • Face masks not generally required. - however staff may choose to wear a mask • Standard Precautions including Hand hygiene • Appropriate PPE as determined by a Point of Care Risk assessment
8.0	Involved only in driving a patient not loading or unloading from transport vehicle	
8.1	No direct contact with patient and no sealed separation between driver and the patient compartments	<ul style="list-style-type: none"> • Face masks not generally required. - however staff may choose to wear a mask
8.2	No direct contact with patient and the driver's compartment has a sealed separation from the patient	<ul style="list-style-type: none"> • Face masks not generally required. - however staff may choose to wear a mask
9.0	Individuals who may be accompanying the patient (e.g., close family members)	
9.1	For patients in whom COVID-19 or respiratory viral infection is suspected or confirmed	<ul style="list-style-type: none"> • Visitors should be supported and advised how to correctly perform hand hygiene and in donning/doffing PPE as appropriate • Surgical or respirator mask as tolerated
9.2	For patients where COVID-19 or respiratory viral infection is not suspected or confirmed	<ul style="list-style-type: none"> • Face masks not generally required. – however individuals may choose to wear a mask • Hand hygiene • PPE as per Standard Precautions (for example for contact with blood or body fluids) or as appropriate to other known or suspected colonization or infection as advised by healthcare staff.
10.0	Administering COVID-19 vaccines	
10.1	COVID-19 vaccine administration	<ul style="list-style-type: none"> • Face masks not generally required. – however Staff may choose to wear a mask • Standard Precautions including Hand hygiene • Appropriate PPE as determined by a Point of Care Risk assessment <p>In case of need for CPR as per 5.1.2 risk assess requirement for:</p>



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		<ul style="list-style-type: none">• Respirator mask• Eye protection
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Types of PPE

1. **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. Gloves are not required for most healthcare interactions, but should be worn where there is a risk to the HCW of contact with blood or body fluids of a patient.
2. **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.
3. **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 HCWs uniform or clothing;
4. 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 underneath or over the gown;
5. **Eye protection/ Face visor:** should be worn when exposed to risk of airborne transmission and where there is a risk of contamination to the eyes from splashing of blood, body fluids, excretions or secretions (including respiratory secretions):
 - a. Full face shield or visor;
 - b. Goggles / safety spectacles.
6. **Respirator masks:** should be considered for care of patients with suspected or confirmed COVID-19 or respiratory viral infection; they are recommended for use during AGPs and for use in areas in which IPC team advice indicates that there is a high risk that patients with unsuspected COVID-19 or respiratory viral infection are likely to be present.
 - a. **Tips for respirator facemasks:**

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;

Respirator masks can remain effective when worn continuously for extended periods of time, but must be changed if wet or damaged and once removed they should be disposed of and not re-used.
7. **Surgical Face Masks:** Two types of surgical mask are in use for healthcare staff (Type IIR or Type II). Both masks have the same bacterial filtration rate of 98%. Type IIR masks are more appropriate in situations 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.
 - a. **Tips for surgical face masks:**
 - i. The mask must be donned appropriately, to allow for easy removal without touching the front of the mask;



- ii. Must cover the nose and mouth of the wearer;
 - iii. Must not be allowed to dangle around the HCW's neck;
 - iv. Must not be touched once in place;
 - v. Must be changed when wet or torn or if removed to eat, drink or use a phone;
 - vi. Perform hand hygiene after the surgical face mask is removed.
8. 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 particularly important ;
9. 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

1. 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.
2. 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.

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/respiratory viral infection in settings where AGPs are performed.

Theatre caps/hoods and shoe covers

1. 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.
2. For a HCW with long hair, hair should be tied up and off their face when working in clinical



settings.

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

Extended use of PPE

Extended use means that certain items of PPE (gown, apron, face 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.

Extended PPE use may be required for practical reasons when working in a high risk area where repeated change of certain items of PPE (for example mask and eye protection) may be impractical. Extended use of PPE to limit use of PPE is not required at present as PPE supplies are good.

1. Gowns, if worn, should normally be changed between patients and after completion of a procedure or task. However, if necessary to cope with workload:
 - a. For low contact activities, a disposable apron is appropriate rather than extended use of gowns in confirmed COVID-19 cohort areas
 - b. Where HCW are engaged in high contact activities (Table 1), 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*).
2. If PPE is wet, soiled or torn it must be doffed and disposed of;
3. It is not appropriate to wear PPE that was used in the care of patients with COVID-19 when moving between wards or units or when working in designated office space or in break areas on the ward or unit;
4. Gloves are not required for all interactions with patients with COVID-19; if worn, they must be changed and hand hygiene performed between patients and sometimes between different care activities on the same patient. Extended use of gloves is not appropriate.

Additional information on donning and doffing PPE is available here:

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

Video resources for the donning and doffing of PPE are available here:

<https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/videoresourcesforipc/>

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