

Scottish COVID-19 Infection Prevention and Control

Addendum for Acute Healthcare Settings

Version History

Version	Date	Summary of changes
V1.0	26/10/20	First publication
V1.1	28/10/20	Update to section 5.7 'Safe Management of the Care Environment' to reflect detail of 2 nd daily clean Update to section 5.5 'Personal Protective Equipment' to be more explicit
V1.2	06/11/20	Update to align references to changing of facemasks between pathways.
V1.3	20/11/20	New section on communications when transferring a suspected/confirmed case New section on car sharing New section on visiting Update to definition of recovered patient
V1.4	09/12/20	New section on PPE requirements for delivery of vaccinations New section on outbreaks
V1.5	17/12/20	New section on COVID-19 testing New section on Patients returning from weekend/day pass New section on Whole Genome Sequencing (WGS) Link to RCPCH paediatric guidance for pre-operative admission assessment and testing requirements New FRSM poster (ways to improve fit)

This addendum has been developed in collaboration with NHS Boards to provide Scottish context to the UK COVID-19 IPC remobilisation guidance, some deviations exist for Scotland and these have been agreed through consultation with NHS Boards and approved by the CNO Nosocomial Review Group. These processes deviate from the National Infection Prevention & Control Manual normal process for sign off due the timescales for COVID-19 guidance approval.

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Addendum

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IMPORTANT: Whilst guidance contained within this addendum is specific to COVID-19, clinicians must consider the possibility of infection associated with other respiratory pathogens spread by the droplet or airborne route and therefore Transmission Based Precautions (TBPs) should not be automatically discontinued where COVID-19 has been excluded. Any patient who has a coinfection with COVID-19 must not be cohorted with other COVID-19 patients.

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The purpose of this addendum is to provide COVID-19 specific IPC guidance for NHS Scotland on a single platform improving accessibility for users. The guidance within this addendum is in line with the UK IPC remobilisation guidance however some deviations for NHS Scotland exist.

5.0 COVID-19 case definitions and triage questions

IMPORTANT: *Whilst these additions are specific to COVID-19, clinicians must consider the possibility of infection associated with other respiratory pathogens spread by the droplet or airborne route and therefore Transmission Based Precautions (TBPs) should not be automatically discontinued where COVID-19 has been excluded. Any patient who has a coinfection with COVID-19 must not be cohorted with other COVID-19 patients.*

5.0.1 Definition of a confirmed case

A laboratory confirmed (detection of SARs-CoV-2 RNA in a clinical specimen) case of COVID-19.

5.0.2 Definition of a suspected case

An individual meeting one of the following case criteria taking into account atypical and non specific presentations in older people with frailty ([further information on presentations and management of COVID-19 in older people can be found here](#)), those with pre existing conditions and patients who are immunocompromised;

Community definition:

- Recent onset new continuous cough
OR
fever
OR
loss of/change in sense of taste or smell (anosmia)

Definition for individuals requiring hospital admission:

- Clinical or radiological evidence of pneumonia
OR
Acute Respiratory Distress Syndrome
OR
Influenza like illness (fever $\geq 37.8^{\circ}\text{C}$ and at least one of the following respiratory symptoms, which must be of acute onset; persistent cough (with or without sputum),

hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing)

OR

A loss of, or change in, normal sense of taste or smell (anosmia) in isolation or in combination with any other symptoms

Patients must be assessed for bacterial sepsis or other causes of symptoms as appropriate

5.0.3 Triageing patients

Triageing of patients within all healthcare facilities must be undertaken to enable early recognition of COVID-19 cases. Wherever possible, triage questions should be undertaken prior to arrival at the healthcare facility. For emergency admissions, triage questions should be completed immediately on arrival where it is safe to do so without delaying any necessary immediate life saving interventions.

The following are examples of triage questions;

- Do you or any member of your household/family have a confirmed diagnosis of COVID-19? If yes, wait until self isolation period is complete before treatment or if urgent care is required, follow the **high risk** pathway.
- Are you or any member of your household/family waiting for a COVID-19 test result? Is yes, ascertain if treatment can be delayed until results are known. If urgent care is required, follow the **high risk** pathway.
- Have you travelled internationally to any country which isn't exempt from self isolation rules in the last 14 days? If yes, 14 days self-isolation will apply. Only urgent care should be provided during the self isolation period. The patient should be placed in a single side room on the **amber** or **red** pathway depending on a clinical and individual assessment – see footnote 1 in section 5.1 (See Scottish Government link below for the list of countries exempt from self isolation).
- Have you had contact with someone with a confirmed diagnosis of COVID-19, or been in isolation with a suspected case in the last 14 days? If yes, wait until self isolation period is complete before treatment or if urgent care is required, follow **high risk** pathway.
- Do you have any of the following symptoms?
 - High temperature or fever
 - New, continuous cough
 - A loss or alteration to taste or smellIf yes, provide advice on who to contact (GP/NHS111) or, if admission required, follow **high risk** pathway.
- Is there any reason why you are unable to wear a face covering when attending for your appointment/admission? If No, remind patient to wear face covering on arrival or supply facemask.

Please see link to the Scottish Government website below which details quarantine (self-isolation) rules and information on the process for people entering the UK.

<https://www.gov.scot/publications/coronavirus-covid-19-public-health-checks-at-borders/pages/overview/>

5.1 COVID-19 Testing

All planned adult elective surgical admissions should be tested in line with [SIGN Guidance for Reducing the risk of postoperative mortality due to COVID-19 in patients undergoing elective surgery](#) and elective surgical paediatric admissions must be tested in line with [RCPC guidance](#). A letter was also issued to NHS Scotland Chief Executives on 27th November detailing the staged roll out of the admission testing expansion plan to include;

- All emergency admissions
- All planned admissions to hospitals
- Routine testing of asymptomatic, patient facing healthcare workers#

The letter to NHS Scotland Chief Executives can be found here and provides more detail on testing requirements.

Screening undertaken outwith national programmes which are detailed at the links above should be based on decision of clinical services e.g screening in critical care settings.

Fragments of inactive virus can be persistently detected by PCR in respiratory tract samples for some time following infection. Therefore, any patient who has previously tested positive for SARS-CoV-2 by PCR should be exempt from being re-tested within a period of 90 days from their initial symptom onset, unless they develop new possible COVID-19 symptoms.

5.1 Patient placement/Assessment of Infection Risk

Defined pathways must be established to ensure segregation of patients determined by their risk of COVID-19. Any other known or suspected infections and the need for any Aerosol Generating Procedures (AGPs) must be considered before patient placement within each of the pathways.

Examples of pathways are described below. Your board may use different names for each of the pathways from those described below and you should familiarise yourself with the pathways in your clinical area that align with those described here.

1. Known as the High Risk COVID-19 pathway in the UK IPC remobilisation guidance and is more commonly known as the Red pathway in many boards within Scotland.

- a. Confirmed COVID-19 individuals
- b. Symptomatic or Suspected COVID-19 individuals (as determined by hospital or community case definition or clinical assessment where there is a suspicion of COVID-

19 taking into account atypical and non-specific presentations in older people with frailty those with pre-existing conditions and patients who are immunocompromised),

- c. Those who are known to have had contact with a confirmed COVID-19 individual and are still within the 14 day self-isolation period and those who have been tested and results are still awaited.
- d. See footnote 1

2. Known as the Low Risk COVID-19 Pathway in the UK IPC remobilisation guidance and may be commonly known as the Green or Super Green pathway in many boards within Scotland.

- a. Patients who have been triaged and meet the following criteria; asymptomatic AND no known contact with a COVID-19 case AND meet isolation and testing criteria as per SIGN Guidance for Reducing the risk of postoperative mortality due to COVID-19 in patients undergoing elective surgery.

NB: Paediatric services refer to [RCPCH guidance](#) for pre-operative admission assessment and testing requirements only. All other IPC guidance should be followed as per this addendum.

3. Known as the Medium Risk COVID-19 pathway in the UK IPC remobilisation guidance and may be commonly known as the Amber pathway in many boards within Scotland.

- a. all other patients who have been triaged and who do not have any symptoms of COVID-19.
- b. Asymptomatic individuals who refuse testing or for whom testing cannot be undertaken for any reason
- c. See footnote 1
- d. Recovered COVID-19 patients – see footnote 2

1. When deciding patient placement for untriaged individuals where symptoms are unknown (e.g patient unconscious) or individuals who have returned from a country on the quarantine list in the last 14 days, a full clinical and individual assessment of the patient should be carried out prior to placement in a side room on the **red OR amber** pathway. This assessment should take account of risk to the patient (immunosuppression, frailty) and clinical care needs (treatment required in specialist unit).

2 Recovered patients can generally be defined as those who have completed 14 days isolation whilst an inpatient starting from the date of symptom onset (or from positive test date if asymptomatic) and have had absence of fever for 48 hours (without use of antipyretics). However, individual risk assessment is required to take account of those who are severely immunocompromised and those at extremely high risk of illness. These patient groups are at increased risk of prolonged viral shedding.

5.1.1 Critical care units

Where facilities allow, boards may allocate separate critical care units to each of the defined pathways. It is accepted however that critical care units in some NHS boards may have to house

patients from each of the 3 pathways on the one unit. Pathways must be clearly signposted. Where all COVID-19 patients requiring Aerosol Generating Procedures (AGPs) on the High and Medium Risk Pathways can be isolated in a single side room the whole unit does not need to be considered a 'High Risk' area and no longer requires unit wide airborne precautions to be applied. However, consideration may need to be given to unit wide application of airborne precautions where the number of cases of high and medium risk pathway patients requiring AGPs increases and all such patients cannot be managed in a single side room. Where AGPs on any medium and high risk patient is required on the main unit, this presents a risk to the surrounding patients and staff and unit wide airborne precautions would be required.

Bed management needs to be considered pre operatively in the event that a critical care bed is required post operatively to ensure there is a bed available on the correct pathway.

Frequently Asked Questions (FAQs) for critical care units can be accessed [here](#).

5.1.2 Split pathways

Where necessary, hospital care areas may designate self contained areas on the same ward for the treatment and care of patients at high and medium risk or patients at medium and low risk of COVID-19 following a risk assessment undertaken in conjunction with the local IPCT and taking into account considerations such as the type of clinical area, the patient group, the ward environment (including single side room capacity) staffing levels and overall bed capacity and demand. Patients on the high and low risk pathways should not be on the same ward unless this is a critical care or regional specialist centre where clinical care cannot be provided anywhere else. This may require discussion with the IPCT. There should be clear physical segregation of pathways with signage in place to support this and staff should be cohorted to the different pathways within the same ward wherever possible.

5.1.3 Staff cohorting

Efforts should be made as far as reasonably practicable to dedicate assigned teams of staff to care for patients in each of the different pathways. There should be as much consistency in staff allocation as possible, reducing movement of staff and the crossover between pathways. Rotas should be planned in advance wherever possible, to take account of different pathways and staff allocation. For staff groups who need to go between pathways, efforts should be made to see patients on the low risk pathways first, then the medium risk pathway, then the high risk pathway. FRSMs should be changed if wet, damaged, soiled or uncomfortable and must be changed after having provided care for a patient isolated with any other suspected or known infectious pathogens and when leaving high-risk (red) pathway areas.

5.1.4 Moving patients between pathways

Any patient on the medium or low pathways who develop symptoms of COVID-19 should be isolated immediately and tested for COVID-19. Any patient who goes on to test positive for COVID-19 (whether symptomatic or asymptomatic) should be transferred to the high risk pathway.

Patients may only move from the medium pathway to the low risk pathway where they have been isolated in a side room for the full 14 days and staff can document that there have been no recorded PPE breaches by staff or visitors who have entered the patient's room during the 14 day period. A

high level of suspicion should be applied so as not to expose patients on the low risk pathway to a patient who may potentially be incubating COVID-19.

Patients who have been on the high risk pathway having had confirmed COVID-19, may be moved to the Medium risk pathway after they meet the definition for a 'recovered patient' – see footnote 2 above.

5.1.5 Transferring patients between wards, departments or hospitals during infectious period

Wherever possible, patients who are confirmed or suspected to have COVID-19 should not be moved from the high risk pathway ward until they have completed 14 days of isolation and meet the definition for a recovered patient as described in footnote 1 and criteria contained within the stepdown guidance. There may however be instances where it is necessary to transfer a patient prior to completion of their 14 day isolation period such as;

- The patient no longer requires critical care and the critical care bed is required for another patient
- The patient requires escalation of care to a critical care unit
- The patient requires urgent treatment in a regional specialist unit and postponement would have a detrimental effect on the patient and the care cannot be provided on the ward they currently reside in
- The patient requires an urgent procedure or investigation to be undertaken and postponement would have a detrimental effect on the patient

The local IPCT should be notified of any patient transfer out of a high risk ward where the patient has not yet completed their 14 day isolation period.

Communication with the receiving department/NHS Board is vital to ensure appropriate IPC measures are continued during and after transfer. Communications must include;

- Patient symptom onset date
- Patient positive test date (if confirmed)
- Date when patient will have completed 14 days in isolation
- Current symptom status
- Any patient details which prevent or impact on the necessary transmission based precautions required for COVID-19 i.e. falls risk requiring door to remain open, patient does not adhere to isolation
- Confirm if local IPC team has been informed of transfer

Ensure transferring ambulance or portering staff are advised of the necessary precautions required for PPE and decontamination of transfer equipment.

5.1.5 Single side room prioritisation

Any patient who has a coinfection with COVID-19 and any other known or suspected infectious pathogen must not be cohorted with other COVID-19 patients.

5.1.6 Patients returning from day or overnight pass

Patients who have been allowed to leave the healthcare facility for the day or for an overnight stay should be triaged in advance of their immediate return to the facility and again on arrival at the facility to determine which pathway they should be placed on. Patients should not return to the low risk pathway and as a minimum should be placed on the medium risk pathway.

5.1.6 Stepdown of Infection Prevention & Control measures for confirmed COVID-19

Guidance for Stepdown of Infection Prevention and Control Precautions and criteria for discharging patients from hospital to residential settings can be found at the link below.

*Insert link out to stepdown guidance

5.1.7 Local and National prevalence data

Boards must have an escalation action plan in place ready to deploy should prevalence increase triggering a potential cessation of elective services and an increase in high risk pathway cases. Local and National prevalence and incidence data as advised by country specific public health organisations should be used to inform the pandemic plan which should include local systems for monitoring prevalence, triggers and a defined escalation process which takes account of bed capacity, COVID-19 cluster data and risks associated with disruption to elective services. These considerations may be site specific or board wide.

As case numbers of COVID-19 fluctuate, so too will the volume of patients on each of the pathways. Where critical care units need to expand, this action plan should include allocated areas for additional ITU beds and sufficient staffing and equipment to support the expansion.

5.2 Hand Hygiene

Hand hygiene is considered one of the most important practices in preventing the onward transmission of any infectious agents including COVID-19. Hand hygiene should be performed in line with section 1.2 SICPs.

5.3 Respiratory and cough hygiene

Respiratory and cough hygiene is designed to minimise the risk of cross transmission of respiratory pathogens including COVID-19. The principles of respiratory and cough hygiene can be found in section 1.3 of SICPs.

5.4 Personal Protective Equipment (PPE)

PPE exists to provide the wearer with protection against any risks associated with the care task being undertaken. PPE requirements as per standard infection prevention and control are detailed in section 1.4 of SICPs. PPE requirements during the COVID-19 pandemic are determined by the care pathways and are detailed in 5.4.3 below.

5.4.1 Extended use of Face Masks for staff, visitors and outpatients

New and emerging scientific evidence suggests that COVID-19 may be transmitted by individuals who are not displaying any symptoms of the illness (asymptomatic or pre-symptomatic). The extended use of facemasks by health and social care workers and the wearing of face coverings by visitors is designed to protect staff and patients and the full guidance and associated FAQs can be found at the following link on the Scottish Government's COVID-19 web page;

<https://www.gov.scot/publications/coronavirus-covid-19-interim-guidance-on-the-extended-use-of-face-masks-in-hospitals-and-care-homes/>

A poster detailing the 'Dos and don'ts' of wearing a face mask can be found at the link below and in the resources & tools section (5.12)

<https://www.hps.scot.nhs.uk/web-resources-container/covid-19-wearing-a-face-mask-poster-staff/>

In Scotland, staff are provided with Type IIR masks for use as part of the extended wearing of facemasks.

A poster intended to support the wearing of a non medical face mask/face covering can be found at the link below and in the resources and tools section (5.12).

<https://www.hps.scot.nhs.uk/web-resources-container/covid-19-wearing-a-non-medical-face-mask-or-face-covering/>

5.4.2 Face masks for inpatients

A surgical facemask should be worn by all inpatients in the high risk pathway where it can be tolerated and does not compromise their clinical care for example when receiving oxygen therapy. All inpatients on the medium pathway must wear a surgical facemask where tolerated. The purpose of this is to minimise the dispersal of respiratory secretions and reduce environmental contamination. It is recognised that it will be impractical for patients to wear facemasks at all times and these will have to be removed for reasons such as eating and drinking or showering. There is no need for patients to wear a facemask when sleeping provided the beds are at least 2 metres apart.

A surgical facemask should be worn by all patients across all pathways during transfer between departments within the hospital.

Where a patient is isolated in a side room, they do not need to wear a surgical facemask.

Patients on the low risk pathway do not need to wear surgical facemasks.

More information on physical distancing in inpatient settings can be found in section 5.11.

5.4.3 PPE determined by COVID19 care pathway

The PPE worn for direct patient care differs depending on the COVID-19 care pathway and the task being undertaken. It is important that the need for PPE required for any other known or suspected pathogens is also risk assessed.

Table 1 below details the PPE which should be worn when providing direct patient care in each of the COVID-19 care pathways.

Type IIR facemasks should be worn for all direct patient care regardless of the pathway. This is a measure which has been implemented alongside physical distancing specifically for the COVID-19 pandemic. FRSMs can be worn when going between patients on the medium (amber) and low (green) risk pathways however, FRSMs should be changed if wet, damaged, soiled or uncomfortable and must be changed after having provided care for a patient isolated with any other suspected or known infectious pathogens and when leaving high-risk (red) pathway areas. **It is recommended that surgical masks should be well fitting and fit for purpose, covering the mouth and nose in order to prevent venting (exhaled air 'escaping' at the sides of the mask). A poster accessed here provides some suggested ways to wear facemasks to help improve fit.**

Table 1: PPE for direct patient care determined by pathway

	Gloves	Apron	Face mask	Eye face protection
Low Risk Pathway	If contact with BBF*1 is anticipated, then Single use	If direct contact with patient, their environment or BBF is anticipated (Gown if splashing spraying anticipated) then single use	Always within 2 metres of a patient - Type IIR fluid resistant surgical face mask	If splashing or spraying with BBF anticipated Single use or reusable
Medium Risk pathway	If contact with BBF is anticipated, then Single use	If direct contact with patient, their environment or BBF is anticipated (Gown if splashing spraying anticipated), then Single use	Always within 2 metres of a patient - Type IIR fluid resistant surgical face mask	If splashing or spraying with BBF anticipated Single use or reusable
High Risk Pathway	Worn for all direct patient care Single use	Always within 2 metres of a patient (Gown if splashing spraying anticipated). Single Use	Always within 2 metres of a patient - Type IIR fluid resistant surgical face mask	Always within 2 metres of a patient Single use, sessional*2 or reusable following decontamination

*1BBF – Blood & Body Fluids

*2 – See section 5.4.7 for details of sessional use

5.4.4 Aerosol Generating procedures (AGPs)

An Aerosol Generating Procedure (AGP) is a medical procedure that can result in the release of airborne particles from the respiratory tract when treating someone who is suspected or known to be suffering from an infectious agent transmitted wholly or partly by the airborne or droplet route.

Below is the list of medical procedures for COVID-19 that have been reported to be aerosol generating and are associated with an increased risk of respiratory transmission:

- tracheal intubation and extubation
- manual ventilation
- tracheotomy or tracheostomy procedures (insertion or removal)
- bronchoscopy
- dental procedures (using high speed devices, for example ultrasonic scalers/high speed drills)
- non-invasive ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP)
- high flow nasal oxygen (HFNO)
- high frequency oscillatory ventilation (HFOV)
- induction of sputum using nebulised saline
- respiratory tract suctioning*
- upper ENT airway procedures that involve respiratory suctioning
- upper gastro-intestinal endoscopy where open suction of the upper respiratory tract occurs
- high speed cutting in surgery/post-mortem procedures if respiratory tract/paranasal sinuses involved

* NB: The available evidence relating to Respiratory Tract Suctioning is associated with ventilation. In line with a precautionary approach open suctioning of the respiratory tract regardless of association with ventilation has been incorporated into the current (COVID-19) AGP list. It is the consensus view of the UK IPC cell that only open suctioning beyond the oro-pharynx is currently considered an AGP i.e. oral/pharyngeal suctioning is not an AGP. The evidence on respiratory tract suctioning is currently being reviewed by the AGP Panel.

Certain other procedures or equipment may generate an aerosol from material other than patient secretions but are not considered to represent a significant infectious risk for COVID-19. Procedures in this category include administration of humidified oxygen, administration of Entonox or medication via nebulisation.

The New and Emerging Respiratory Viral Threat Assessment Group (NERVTAG) advised that during nebulisation, the aerosol derives from a non-patient source (the fluid in the nebuliser chamber) and does not carry patient-derived viral particles. If a particle in the aerosol coalesces with a contaminated mucous membrane, it will cease to be airborne and therefore will not be part of an aerosol. Staff should use appropriate hand hygiene when helping patients to remove nebulisers and oxygen masks. In addition, the current expert consensus from NERVTAG is that chest compressions are not considered to be procedures that pose a higher risk for respiratory infections including COVID-19.

An SBAR produced by Health Protection Scotland (HPS) and agreed by NERVTAG specific to AGPS during COVID-19 can be found [here](#).

The NERVTAG consensus view is that the HPS document accurately presents the evidence base concerning medical procedures and any associated risk of transmission of respiratory infections and whether these procedures could be considered aerosol generating. NERVTAG supports the conclusions within the document and supports the use of the document as a useful basis for the

development of UK policy or guidance related to COVID-19 and aerosol generating procedures (AGPs). **5.4.5 PPE for Aerosol Generating Procedures (AGPs)**

Airborne precautions are not required for AGPs on patients/individuals in the low risk pathway provided the patient has no other infectious agent transmitted via the droplet or airborne route. However, we recognise that some staff remain anxious about performing AGPs on patients during this COVID-19 pandemic and therefore when prevalence is high, and where staff have concerns about potential exposure to themselves, they may choose to wear an FFP3 respirator rather than a FRSM when performing an AGP on a low risk pathway patient. This is a personal PPE risk assessment.

Airborne precautions are required for the medium and high risk pathways where AGPs are undertaken and the required PPE is detailed in table 2 below.

***Work is currently underway by the UK Re-useable Decontamination Group examining the suitability of respirators, including powered respirators, for decontamination. This literature review will be updated to incorporate recommendations from this group when available. In the interim, ARHAI Scotland are unable to provide assurances on the efficacy of respirator decontamination methods and the use of re-useable respirators is not recommended.*

Table 2: PPE for Aerosol generating Procedures determined by pathway

	Gloves	Apron/ Gown	Face mask/Respirator	Eye face protection
Low Risk Pathway*1	Single use	Single use Apron (Gown if splashing spraying anticipated)	Type IIR*2	Single use or re-useable
Medium Risk pathway	Single use	Gown – Single use	FFP3 mask*2 or Powered respirator hood	Single use or re-useable
High Risk Pathway	Single use	Gown – Single use	FFP3 mask or Powered respirator hood	Single use or re-useable

*1 Provided individual has no other known or suspected infectious agent transmitted via the droplet or airborne route.

*2 FFP3 masks must be fluid resistant. Valved respirators may be shrouded or unshrouded. Respirators with unshrouded valves are not considered to be fluid-resistant and therefore should be worn with a full face shield if blood or body fluid splashing is anticipated.

5.4.6 Post AGP Fallow Times (PAGPFT)

Time is required after an AGP is performed to allow the aerosols still circulating to be removed/diluted. This is referred to as the post AGP fallow time (PAGPFT) and is a function of the room ventilation air change rate. The post aerosol generating procedure fallow time (PAGPFT) calculations are detailed in table 3 below and clinical teams will need to undertake a risk assessment in conjunction with estates colleagues and the IPCT for rooms in which AGPs are performed. The duration of AGP is also required to calculate the PAGPFT and clinical staff are therefore reminded to note the start time of an AGP. It is presumed that the longer the AGP, the more aerosols are

produced and therefore require a longer dilution time. During the PAGPFT staff should not enter this room without FFP3 masks. Patients, other than the patient on which the AGP was undertaken, must not enter the room until the PAGPFT has elapsed and the surrounding area has been cleaned appropriately as per NHS Scotland Cleaning Standards. As a minimum, regardless of air changes per hour (ACH), a period of 10 minutes must pass before rooms can be cleaned. This is to allow for the large droplets to settle. Staff must not enter rooms in which AGPs have been performed without airborne precautions for a minimum of 10 minutes from completion of AGP. Airborne precautions may also be required for a further extended period of time based on the duration of the AGP and the number of air changes (see table 3). Cleaning can be carried out after 10 minutes regardless of the extended time for airborne PPE

Table 3: Post AGP fallow time calculation:

Duration of AGP (min)	Air change rate (AC/h)									
	1	2	4	6	8	10	12	15	20	25
3	230	114	56	37	27	22	18	14	10	8*(10)
5	260	129	63	41	30	24	20	15	11	8*(10)
7	279	138	67	44	32	25	20	16	11	9*(10)
10	299	147	71	46	34	26	21	16	11	9*(10)
15	321	157	75	48	35	27	22	16	12	9*(10)

- The minimum fallow time (to allow for droplet settling time) is 10 minutes

Post AGP Fallow Times are not required for AGPs undertaken on patients in the low risk pathway provided the patient has no other infectious agent transmitted via the droplet or airborne route.

For more information specific to theatre settings, please see the operating theatre FAQs which can be found here.

It is often difficult to calculate air changes in areas that have natural ventilation only. Natural ventilation, particularly when reliant on open windows can vary depending on the climate. An arbitrary air change rate in these circumstances has been agreed as 1-2 air changes/hour.

If the area has zero air changes and no natural ventilation, then AGPs should not be undertaken in this area.

5.4.7 Sessional use of PPE

During the peak of the pandemic, some PPE was used on a sessional basis and this meant that these items of PPE could be used moving between patients and for a period of time where a healthcare worker was undertaking duties in an environment where there was exposure to COVID-19. A session ended when the healthcare worker left the clinical setting or exposure environment. Supplies of PPE are now sufficient that sessional use of PPE is no longer required other than when wearing a visor/eye protection in a communal bay on the high risk pathway and when wearing a fluid resistant surgical face mask (FRSM) across all pathways. FRSMs and can be worn sessionally when going between patients however, FRSMs should be changed if wet, damaged, soiled or uncomfortable and

must be changed after having provided care for a patient isolated with any other suspected or known infectious pathogen and when leaving high-risk (red) pathway areas.

Visors/eye protection must be changed if damaged, soiled, compromised or uncomfortable or after having provided care for a patient isolated with any other suspected/known infectious pathogens and when leaving the high risk (red) pathway.

Critical care units may use some sessional PPE when unit wide airborne precautions have been applied. See Critical Care FAQs for more information.

5.4.8 PPE for delivery of COVID-19 vaccination

Healthcare workers (HCWs) delivering vaccinations must;

- wear a fluid resistant surgical facemask (FRSM) for all direct patient contact and where 2 metre physical distancing cannot be maintained. This will protect both the HCWs and patient from exposure to COVID-19 should either be pre-symptomatic or an asymptomatic carrier of COVID-19.
- perform hand hygiene regularly including before and after each patient/individual. contact and as per 5 moments for hand hygiene laid out in the National Infection Prevention & Control Manual (NIPCM).
- wear a visor should be worn where there is anticipated splash or spraying to the face. For example, where nasal vaccinations induce sneezing, HCWs may choose to wear a visor to prevent droplet contamination to the face following risk assessment. The individual on whom the nasal vaccination is being administered should be provided with disposable tissues to cover their mouth where any sneezing is likely. They should dispose of the tissues in a suitable waste receptacle and wash hands with warm soap and water. If there are no hand hygiene facilities available, ask the individual to use alcohol based hand rub (ABHR) and wash their hands at the earliest opportunity.
- other items of PPE are unlikely to be required for routine vaccination and a risk assessment should be carried out considering both IPC and COSHH guidance. As per SICPs;
 - Aprons should be worn where there is anticipated contamination to the healthcare workers uniform or clothing.
 - Gloves should be worn where blood and body fluid exposure is anticipated. Tiny amounts of blood resulting from vaccination site pose little risk to a HCW where the skin of the healthcare workers hands is intact. There is therefore no need to wear gloves when delivering a vaccination provided the skin on the HCWs hands is intact and the skin of the person receiving the vaccination is intact. An SBAR which considered the need for HCWs to wear gloves when delivering vaccinations was produced by HPS in 2014 and can be found [here](#).

5.5 Safe management of Care Equipment

Care equipment is easily contaminated with blood, other body fluids, secretions, excretions and infectious agents. Consequently, it is easy to transfer infectious agents from communal care equipment during care delivery. All care equipment should be decontaminated as per Table 4 below.

Table 4 – Equipment cleaning determined by pathway

Pathway	Product
Low Risk Pathway	General purpose detergent for routine cleaning. See Appendix 7 of the NIPCM for cleaning of equipment contaminated with blood or body fluids or it has been used on a patient with a known or suspected infectious pathogen.
Medium Risk pathway	Combined detergent/disinfectant solution at a dilution of 1000 ppm av chlorine or general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1000ppm av chlorine.
High Risk Pathway	Combined detergent/disinfectant solution at a dilution of 1000 ppm av chlorine or general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1000ppm av chlorine.

5.6 Safe Management of the Care Environment

During this ongoing pandemic, cleaning frequency of the environment should be increased across all pathways. A minimum of 4 hours should have elapsed between the first daily clean and the second daily clean. Where a room has not been occupied by any staff or patients since the first daily clean was undertaken, a second daily clean is not required.

It is the responsibility of the person in charge to ensure that the care environment is safe for practice (this includes environmental cleanliness/maintenance). The person in charge must **act** if this is deficient.

The care environment must be:

- visibly clean, free from non-essential items and equipment to facilitate effective cleaning
- well maintained and in a good state of repair
- Remove bullet point

The use of general purpose detergent for cleaning in the Low Risk pathway is sufficient with the exception of isolation/cohort areas where patients with a known or suspected infectious agent are being nursed. These areas require to be cleaned twice daily with a chlorine releasing agent containing 1000ppm av chlorine.

Environmental cleaning in the Medium and High Risk COVID19 Pathways should be undertaken using either a combined detergent/disinfectant solution at a dilution of 1000 ppm available chlorine or a general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1000ppm.

Cleaning across the pathways is summarised in table 5 below. It is recognised that NHS boards will have local protocols in place to determine the staff groups who have responsibility for cleaning different items and areas.

Table 5 – Environmental cleaning determined by pathway

	1st daily clean	2nd daily clean	Product
Low Risk Pathway*	Full clean	*High Risk Touch Surfaces within clinical inpatient areas	General purpose detergent*
Medium Risk pathway	Full clean	*High Risk Touch Surfaces within clinical inpatient areas	Combined detergent/disinfectant solution at a dilution of 1000 ppm av chlorine or general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1000ppm av chlorine.
High Risk Pathway	Full clean	*High Risk Touch Surfaces within clinical inpatient areas	Combined detergent/disinfectant solution at a dilution of 1000 ppm av chlorine or general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1000ppm av chlorine.

*Cleaning in the low risk pathway should be carried out with chlorine based detergent for patient rooms where the patient is known to have any other known or suspected infectious agent.

* High risk touch surfaces as a minimum should include door handles/push pads, taps, bed heads/bed ends, cotsides, light switches, lift buttons. Clinical inpatient areas should include the patient bedroom and treatment areas and staff rest areas.

Any areas contaminated with blood and body fluids across any of the 3 pathways require to be cleaned as per Appendix 9 of the National Infection Prevention Control Manual (NIPCM).

5.7 Safe Management of Linen

All linen should be handled as per section 1.7 of SICPs – Safe Management of Linen

Linen used on patients in the High and Medium Risk pathway should be treated as infectious.

5.8 Safe Management of Blood and Body Fluid Spillages

All blood and body fluid spillages across the 3 pathways should be managed as per section 1.8 of SICPs – Safe management of Blood and Body Fluid Spillages and Appendix 9.

5.9 Safe Disposal of waste (including sharps)

Waste should be handled in accordance with Section 1.9 of SICPs. Waste generated in patient bedroom and treatment areas within the High and Medium Risk pathway should be treated as infectious (category B) where clinical waste contracts are in place. Care Home and Community settings - If the facility does not have a clinical waste contract, ensure all waste items that have been in contact with the individual (e.g. used tissues and disposable cleaning cloths) are disposed of securely within disposable bags. When full, the plastic bag should then be placed in a second bin bag and tied. These bags should be stored in a secure location (not an individual's bedroom) for 72 hours before being put out for collection. NB: FRSMs worn as part of the extended use of facemasks policy should be disposed of as clinical waste.

5.10 Occupational Safety

Section 1.10 of SICPs remains applicable to COVID-19 patients.

Occupational risk assessment guidance specific to COVID-19 can also be found here

PPE is provided for occupational safety and should be worn as per Tables 1 and 2.

5.10.1 Car sharing for Healthcare professionals including trainees/students

Wherever possible, car sharing should be avoided with anyone outside of your household or your support bubble. This is because the close proximity of individuals sharing the small space within the vehicle increases the risk of transmission of COVID-19. All options for travelling separately should be explored and considered such as;

- Healthcare staff travelling separately in their own cars
- Geographical distribution of visits – can these be carried out on foot or by bike?
- Use of public transport where social distancing can be achieved via use of larger capacity vehicles

However, it is recognised that there are occasions where car sharing is unavoidable such as;

- Healthcare staff who carry out community visits
- Healthcare staff who are commuting with students as part of supported learning/mentorship
- Healthcare staff working in emergency response vehicles
- Healthcare staff living in areas where public transport is limited and car sharing is the only means of commuting to and from the workplace

Where car sharing cannot be avoided, individuals should adhere with the guidance below to reduce any risk of cross transmission;

- Staff (and students) must not travel to work/car share if they have symptoms compatible with a diagnosis of COVID-19.
- Ideally, no more than 2 people should travel in a vehicle at any one time
- Use the biggest car available for car sharing purposes
- Car sharing should be arranged in such a way that staff share the car journey with the same person each time to minimise the opportunity for exposure. Rotas should be planned in advance to take account of the same staff commuting together/car sharing as far as possible
- The car must be cleaned regularly (at least daily) and particular attention should be paid to high risk touch points such as door handles, electronic buttons and seat belts. General purpose detergent is sufficient unless a symptomatic or confirmed case of COVID-19 has been in the vehicle in which case a disinfectant should be used.
- Occupants should sit as far apart as possible, ideally the passenger should sit diagonally opposite the driver.
- Windows in the car must be opened as far as possible taking account of weather conditions to maximise the ventilation in the space
- Occupants in the car, including the driver, should wear a fluid resistant surgical mask (FRSM) provided it does not compromise driver safety in any way.
- Occupants should perform hand hygiene using an alcohol based hand rub (ABHR) before entering the vehicle and again on leaving the vehicle. If hands are visibly soiled, use ABHR on leaving the vehicle and wash hands at the first available opportunity
- Occupants should avoid eating in the vehicle
- Passengers in the vehicle should minimise any surfaces touched – it is not necessary for vehicle occupants to wear aprons or gloves
- Keep the volume of any music/radio being played to a minimum to prevent the need to raise voices in the car

Adherence with the above measures will be considered should any staff be contacted as part of a COVID-19 contact tracing investigation.

5.11 Physical distancing

All staff working with NHS Scotland healthcare facilities must maintain 2 metres physical distancing wherever possible. This does not apply to the provision of direct patient care where appropriate PPE should be worn in line with section 5.4. Outbreaks amongst staff have been associated with a lack of physical distancing in recreational areas during staff breaks and when car sharing. There are many areas within healthcare facilities where maintaining 2 metres physical distancing is a challenge due to the nature of the work undertaken. Where 2 metres physical distancing cannot be maintained, staff must ensure they are wearing face masks/coverings in line with the extended use of facemasks 5.4.1.

Staff must adhere to physical distancing as much as possible and should;

- Stagger tea breaks to reduce the number of staff in recreational areas at any one time.
- maintain 2 metre physical distancing when removing FRSMs to eat and drink.

- Not car share when commuting to and from work unless absolutely necessary. Where this is absolutely necessary, staff should sit as far apart as possible, wear a face covering or face mask and keep windows open in the car to improve ventilation.

5.11.1 Inpatient bed spacing and OPD chair spacing

Health Facilities Scotland have undertaken an assessment of bed and chair spacing within NHS Scotland facilities taking into account compounding factors applied in conjunction with physical distancing (patient placement, ventilation, hand hygiene, face coverings, environmental cleaning). The purpose of this document aims to help support boards in reviewing bed spacing to ensure 2M physical distancing, or as close to it as possible, can be maintained for inpatient beds and treatment chairs. The document can be accessed [here](#).

Existing SHPN 04-01 guidance relating to bed spacing can be found [here](#) and recognises that spacing requirements are in place to contribute towards the control of healthcare associated infections. Published in 2010 it stipulates that dimensions of bed spacing in any new builds should meet 3.6m (width) x 3.7m (depth). To achieve 3.6m between bed spaces, measurements should be taken from bed centre to bed centre.

5.11.2 Engineering & Administration control measures in healthcare settings

Boards and departments should apply administrative controls to establish separation of patient pathways and minimise contact between the pathways. Due to the wide variance in the lay out, structure and fabric of NHS facilities across Scotland it is not possible to be descriptive in exactly how these should be applied and full assessment should be undertaken locally. The following bullet points provide guidance which boards and departments may use when considering how best to develop pathways and promote 2 metre physical distancing.

- Signage on entry to buildings, wards and departments advising of the necessary precautions to take (face coverings, hand hygiene, physical distancing) including advice for visitors not to enter the premises if symptomatic of COVID-19.
- Ensure signage is clearly displayed to clearly identify pathways. Floor markings may also be used. Physical barriers may be used where appropriate to prevent cross over of pathways.
- Ensure there are adequate hand hygiene facilities (wash hand basins or alcohol based hand rub stations) available including the use of posters promoting hand hygiene and detailing the effective method for doing so.
- Where required, facilitate the use of screens to reduce exposure risk, for example at admission desks or help desks. Screens may be used in clinical care areas to help segregate patients however installation of these must not hinder the ability of staff to observe their patients and must be assessed by fire officers and health and safety teams first to ensure all other regulations remain compliant. There is limited evidence supporting the use of partitions for face-to-face interactions or between

bed spaces, but it appears logical that a physical barrier can reduce contact between individuals and reduce the spread of infected particles from an infective source. Full bed length, floor to ceiling partitions are likely to be the most efficacious in preventing transmission of COVID-19. Partitions for face-to-face interactions, as a minimum, should cover both individuals breathing zone which encompasses a radius of 30cm from the middle of the face.

- Consider remote consultations where possible rather than face to face.
- Ensure areas are well ventilated where possible – open windows if temperature/weather conditions allow (NB: specific guidance applies to specialist ventilation areas such as theatres and endoscopy suites.)

5.12 Visiting

The Scottish Government have produced guidance to support the safe reintroduction of visitors into hospital settings and NHS boards should familiarise themselves with the content to ensure patient, staff and visitor safety. Visitors must;

- Not visit if they have suspected or confirmed COVID-19 or if they have been advised to self-isolate for any reason
- Wear a face covering on entering the hospital
- Be provided with appropriate PPE (see table 6)
- Perform hand hygiene at the appropriate times;
 - on entry to the hospital and when leaving the patient’s room/ward.
 - Prior to putting on PPE
 - After removing PPE
- Observe physical distancing
- Not move around the ward and should stay at the bedside of the person they are visiting.
- Not visit other patients in the hospital
- Not touch their face or face covering/mask once in place
- Not eat whilst visiting
- Avoid sharing mobile phone devices with the patient unnecessarily – if mobile devices are shared to enable communications with other friends and family members, the phone should be cleaned between uses using manufacturer’s instructions

Table 6 – visitor PPPE

	Gloves	Apron	Face covering/mask	Eye/Face Protection
Low Risk Pathway	Not required*1	Not required*2	Face covering or provide with FRSM if visitor arrives without a face covering	Not required*3

Medium Risk pathway	Not required*1	Not required*2	Face covering or provide with FRSM if visitor arrives without a face covering	Not required*3
High Risk Pathway	Not required*1	If within 2 metres of patient	FRSM	If within 2 metres of patient
Unit Wide AGP Zone	Not required*1	Apron Required	FRSM *4	Not required*3

*1 unless providing direct care to the patient which may expose the visitor to blood and/or body fluids i.e toileting.

*2 unless providing care to the patient resulting in direct contact with the patient, their environment or blood and/or body fluid exposure i.e toileting, bed bath.

*3 Unless providing direct care to the patient and splashing/spraying is anticipated.

*4 Patients should not receive visitors whilst undergoing an AGP or during the Post AGP fallow time that follows the procedure. Where a unit has unit wide airborne precautions in place, visitors may be allowed to enter the room but must be informed that there is a higher degree of risk due to the potential exposure to infectious aerosols. The following additional mitigation measures should be in place;

- Visitor should not enter whilst the individual they are visiting is undergoing an AGP or during the post AGP fallow time.
- Ask visitor to remain 2 metres from all other patients
- Provide the visitor with PPE as described in the table above
- Guide and supervise visitors when donning and doffing PPE and remind them of the appropriate times when hand hygiene should be undertaken.
- Ensure visitors perform hand hygiene on leaving the ward

5.13 Outbreaks

It is essential that staff remain vigilant and report any concern that there may be a possible outbreak of COVID-19 developing in their clinical area. Where two or more patients or staff members in the low or medium risk pathways develop symptoms of suspected COVID-19 or test positive for COVID-19 (regardless of symptom status) and where the cases were not confirmed or suspected COVID-19 on admission, there may be a possible outbreak occurring. A high degree of suspicion should be applied and staff should contact their local IPCT if they suspect an outbreak may be occurring in their area. Further COVID-19 outbreak guidance can be found within chapter 3 of the NIPCM.

5.13.1 Whole Genome Sequencing

Public Health Scotland now offer a sequencing service to expedite outbreak investigations and address important clinical and epidemiological questions. [More information can be found here.](#)

5.13 Resources & Tools

This section contains resources and tools which can be used by clinical teams and IPCTs during the COVID19 pandemic.

- PPE poster – Low risk pathway
- PPE poster - Medium Risk Pathway
- PPE poster - High Risk pathway
- COVID-19 Safe Practice in acute healthcare settings poster
- COVID-19 Wearing a facemask poster (staff)
- Wearing a non medical face mask or face covering
- COVID-19 Frequently Asked Questions for critical care
- COVID-19 Frequently asked questions for Operating theatres
- COVID-19 Outbreak checklist
- Key messages in the workplace poster

5.13 Rapid Reviews

This sections contains rapid reviews of the literature undertaken to support the Infection prevention and Control response to the COVID-19 pandemic.

- Rapid Review of the Literature: Assessing the Infection Prevention and Control Measures for the Prevention and Management of COVID-19 in Healthcare Settings
- Review of the National and International Guidance on Infection Prevention and Control Measures for Personal Protective Equipment (PPE) and Aerosol Generating Procedures (AGPS) for COVID-19
- Eye protection in health and care settings for the prevention of COVID-19 transmission
- Infrared Thermal Imaging in Health and Care Settings
- SBAR: Assessing the evidence base for medical procedures which create a higher risk of respiratory infection transmission from patient to healthcare worker
- Provision of gloves for COVID-19 in health and care settings
- Respirators in health and care settings for the prevention of COVID-19 transmission

5.14 COVID19 Education resources

This section contains a number of educational resources to support the COVID-19 response in partnership with a range of stakeholders

- Correct use of Alcohol Based Hand Rub
- Correct Hand Hygiene Technique using soap and water
- COVID19 an overview

- Correct order for putting on, the safe order for removal, and the disposal of PPE

5.15 COVID19 Compendium

This section contains links to current national and international policy, guidance and resources on COVID-19 from key organisations.

- COVID-19 compendium

Archived for information only