

		Additional paragraph in PPE section reinforcing need for visiting staff to seek clarity on patient pathway and PPE requirements prior to patient contact
V1.9	26/03/21	Sessional PPE use no longer accepted beyond eye protection in the high risk pathway and FRSMs across all pathways. Update to stepdown requirement for inpatient table to recognise need for clinical assessment Useful tools section
V.2.0	07/05/21	Environmental risk assessment

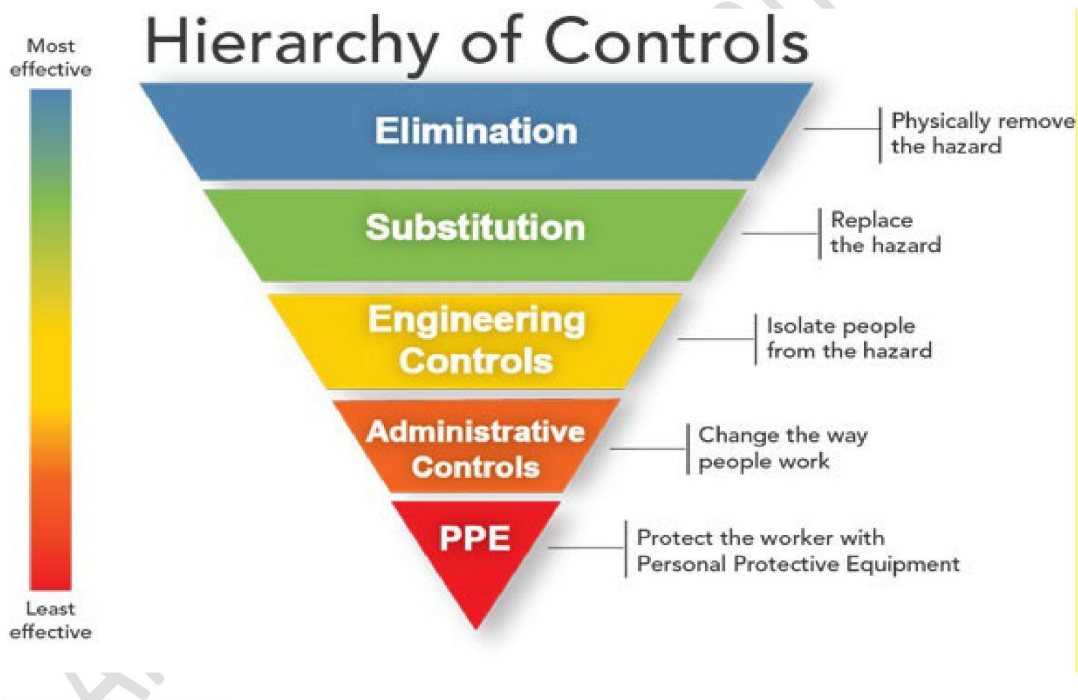
This addendum has been developed in collaboration with NHS Boards to provide Scottish context to the UK COVID-19 IPC remobilisation guidance, some deviations exist for Scotland and these have been agreed through consultation with NHS Boards and approved by the CNO Nosocomial Review Group. These processes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

When an organisation adopts practices that differ from those recommended/stated in this national guidance, that individual organisation is responsible for ensuring safe systems of work, including the completion of a risk assessment(s) approved through local governance procedures.

- 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.)

5.11 Hierarchy of Controls

Controlling exposures to occupational hazards, including the risk of infection, is the fundamental method of protecting healthcare workers. Below is a graphic specifying the general principles of prevention legislated in the Management of Health and Safety at Work Regulations 1999, Regulation 4, Schedule 1. It details the most to the least effective hierarchy of controls and can be used to help implement effective controls in preventing the spread of COVID-19 within healthcare settings. The hierarchy of controls will help protect all users of the NHS facility and not just staff. NHS Boards and NHS staff should first employ the most effective method of control which inherently results in safer control systems. Where that is not possible, all others must be considered in sequence. PPE is the last in the hierarchy of controls.



Hierarchy of Risk Controls

Centers for disease control and prevention. The National Institute for Occupational Safety and Health. Hierarchy of Controls. 2015. <https://www.cdc.gov/niosh/topics/hierarchy/default.html>

Examples of ways in which the hierarchy of controls can be applied in health and social care settings is as follows;

Hierarchy of controls	Examples in practice & Resources

	<ul style="list-style-type: none"> • Reduce movement of patients where procedures can be performed in their own room rather than requiring transfer to another department. • Make efforts to reduce number of people on premises at any one time e.g consider reduction in number of staff involved in ward rounds. • Consider whether MDT case conferences be undertaken using digital methods • Reduce number of deliveries to areas by coordinating as many supplies as possible in as few deliveries as possible. Ensure measures in place to prevent wards and clinical departments being used as through corridors. • Reduce number of staff in break areas/changing rooms/offices and display maximum occupancy on entry to and within the room. • Working from behind or at the side of the individual (no face to face close contact) wherever possible • Development of pathways/one way systems on the premises • Use of various COVID-19 related signage • Provision of additional hand hygiene and face mask stations • Increased cleaning as per Scottish COVID-19 addendum
<p>Personal Protection Equipment (PPE)</p>	<ul style="list-style-type: none"> • Use of FRSMs as per extended use of facemasks guidance • Use of face coverings (although not classed as PPE) by patients and visitors – in healthcare they can be provided with a Type IIR mask • PPE when a risk assessment indicates this is required (see section *** for further information)

5.11.1 General organisational Preparedness and COVID-19 Risk Assessment of the healthcare Environment

A structured risk assessment should be undertaken with Health and Safety (H&S) representatives, Estates and Facilities representatives, Occupational Health Services (OHS) Infection Prevention and Control Team (IPCT) and the clinical team to systematically consider potential hazards in the context of COVID-19 which could negatively impact users of that environment including staff, patients and visitors and ensure application of mitigation measures to eliminate, reduce or control risk.

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 a full risk assessment should be undertaken locally. Environmental considerations should take account of;

- Ventilation within the building/room/space (see section 5.11.3 for more information)

- Ways in which patient and staff numbers within the area can be reduced (NB: visiting guidance - in areas with high numbers of suspected/confirmed COVID19 cases (high risk pathway) then previous guidance on limiting support to “essential visits only” may need to apply in this area)
- Spacing to adequately allow for physical distancing and related room occupancy (see section 5.11.4) in clinical areas, non-clinical areas and staff only areas e.g office spaces, dining rooms, changing rooms. This should take account of circulating space for staff
- Partitions and individual positioning (consideration needs to be given to impact on air flow and necessary cleaning regimes before installation of partitions)
- Inpatient bed spacing and OPD chair spacing (see section 5.11.5)
- Signage and one way systems
- Administrative controls (e.g. Hand Hygiene stations, Facemask stations, waste bins)
- The planned patient cohort e.g. consider the planned COVID-19 pathway for that setting and clinical group - patients with cognitive impairment present a higher risk of transmission in care settings
- Previous IPC healthcare incidents and outbreaks within the area

5.11.2 Organisational Preparedness and COVID-19 Risk Assessment when determining appropriate location for High Risk Pathway

Some clinical environments present a greater risk in terms of COVID-19 transmission if used to care for cohorts of suspected and/or confirmed COVID-19 cases. NHS Boards must seek to identify and prepare the most suitable clinical area for planned placement of patients requiring care on the high risk (red) pathway. This is not required for areas used for the medium and low risk pathways where sporadic cases of ‘unexpected’ positive COVID-19 cases may arise.

Prior to determining areas for placement of the high risk pathway a full risk assessment of the proposed area must be carried out led by Health and safety teams and involving Estates and Facilities representatives, Occupational Health Services (OHS) Infection Prevention and Control Team (IPCT) and the clinical team. This should be undertaken using the hierarchy of controls and recognise that there is lowest risk where elimination can be achieved and highest risk where PPE is the only control in place. Risk assessments should be undertaken regularly as determined by the NHS Board to ensure no change to the level of risk.

The risk assessment should take account of the following questions;

- Which COVID-19 risk pathway is the proposed area to be used for?
- Does the bed spacing in the area meet requirements as per SHPNs in section 5.12.3 below?

- As a minimum, can windows in the area be opened and realistically remain open whilst the space is occupied?

If the risk assessment concludes that an unacceptable risk of transmission remains within the environment after rigorous application of the hierarchy of controls (e.g. inadequate bed spacing AND natural ventilation where windows cannot be opened) and only if there are no other more optimal low risk clinical areas suitable for the high risk pathway cohort then the NHS Boards should consider utilising the area for this purpose with provision of Respiratory Protective Equipment (RPE) for the staff working in this area.

The evidence continues to support the most likely route of COVID-19 transmission being via the droplet and contact route. However, it is accepted that in some high risk environments housing COVID-19 cases where mitigations in line with the hierarchy of controls cannot be applied, the level of risk is unknown and as a precautionary approach, the use of RPE by staff in the designated area may be considered by the organisation. This takes account of interim guidance issued by the World Health Organisation (WHO) occupational health and safety for healthcare workers.

The following subsections provide information to help support risk assessments.

5.11.3 Ventilation in the healthcare setting

Adequate ventilation reduces how much virus is in the air by dilution. It helps reduce the risk of COVID-19 transmission - the risk is greater in areas that are poorly ventilated. A number of studies have linked transmission to recirculating air conditioners, with the high velocities created by these units potentially allowing larger viral aerosols to remain airborne over longer distances. It is also possible that directional flow from desk fans could have a similar effect however the evidence of this is weak. Fans should be avoided as much as possible and should not be used without prior risk assessment.

Mechanically ventilated areas

NHS Scotland Boards should seek assurance that their ventilation systems must comply with current guidance, including:

Best practice guidance for healthcare engineering policies and principles (SHTM 00)
Ventilation for Healthcare - Design and validation (SHTM 03-01 Part A)
Ventilation for Healthcare - Operational and verification (SHTM 03-01 Part B)

Ensure ventilation systems are well maintained ensuring functionality of air handling units and correct delivery of assigned air change rates. Controls should be set to maximise the amount of fresh air coming into the space and avoid recirculation of air as much as possible. Dampers should also be opened as far as possible.