

COVID-19 Infection Prevention and Control Guidance for DHB Acute Care Hospitals

3 July 2020

About this guidance

This guidance outlines the infection prevention and control (IPC) procedures for DHB acute care hospitals providing care for probable or confirmed COVID-19 patients, and those who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19¹. It is a living document and replaces previous versions of the IPC Procedures for DHB Acute Care Hospitals document to include further advice on IPC precautions and an organisational framework for IPC preparedness for the management of COVID-19 cases.

Contents

- 1. Introduction**
- 2. Transmission of COVID-19 and principles of infection prevention and control**
 - 2.1 Routes of transmission**
 - 2.2 Infection prevention and control precautions**
- 3. Organisational preparedness for preventing and controlling COVID-19 in the hospital setting**
 - 3.1 Elimination of potential exposure – ensuring triage, early recognition, and source control**
 - 3.2 Administrative controls**
 - 3.3 Engineering and environmental controls**
 - 3.4 Protection of health care workers and patients using hand hygiene and personal protective equipment (PPE)**
- 4. IPC procedures for DHB acute care hospitals**
- 5. References**

¹ Current COVID-19 case definition: www.health.govt.nz/covid19-case-definition

1. Introduction

This guidance outlines the infection prevention and control (IPC) procedures for district health board (DHB) acute-care hospitals that are receiving, assessing, and caring for patients who are a probable or confirmed case of COVID-19, and those who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19².

Planning and implementation strategies to prevent and control COVID-19 should ensure:

- current guidance is readily available and accessible,
- early assessment, recognition and reporting of cases occurs,
- IPC control measures including hand hygiene and appropriate use of personal protective equipment (PPE) are in place, and
- that the practical ability to respond rapidly is supported through clearly defined links between key individuals and services.

This advice is based on international guidelines and the best evidence available as the COVID-19 pandemic evolves. Some of the advice set out in this guidance may need to be operationalised locally, but the principles of infection prevention and control should be adhered to. Further updates may be made as new evidence emerges and in response to the level of community transmission in New Zealand.

2. Transmission of COVID-19

2.1 Routes of transmission

The transmission of **SARS CoV-2, the virus that causes COVID-19 disease**, occurs mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces. The primary modes of transmission are assumed to be droplet and contact.

Respiratory droplets are generated when an infected person coughs, sneezes, sings or talks. Transmission of respiratory viruses occurs when large respiratory droplets (>5 microns) carrying infectious pathogens are expelled from the respiratory tract of the infectious individual and land on susceptible mucosal surfaces of the recipient. Studies have shown that the nose, eyes, and less frequently the mouth, are susceptible portals of entry for respiratory viruses.

Transmission also may occur through direct and indirect contact with contaminated surfaces, or by contact with equipment used on or by the infected person (e.g. stethoscope or thermometer).

Aerosol generating procedures (AGPs) can promote the generation of fine airborne particles (<5 microns). These fine particles remain suspended in the air for longer periods than larger particles and can be inhaled resulting in a risk of airborne transmission. There is varying evidence on the degree of airborne versus droplet transmission of COVID-19. There is strong evidence that COVID-19, like most respiratory viral infections, is mainly transmitted by large droplets. The current and epidemiological evidence suggests that transmission via the airborne route is rare. Some aerosol generating procedures (AGPs) may increase this risk.

² Current COVID-19 case definition: www.health.govt.nz/covid19-case-definition

2.2 Infection prevention and control precautions

Standard Precautions and Transmission Based Precautions must be adhered to when managing patients with probable or confirmed COVID-19, or who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19.³ In addition to practices carried out by health care workers when providing care, all individuals (including patients and visitors) should comply with infection control practices in health care settings. The control of spread from the source is essential to avoid transmission of COVID-19.

Standard Precautions

Standard Precautions apply to all patients at all times. Standard Precautions are the basic level of infection control precautions which are to be used, as a minimum, in the care of all probable or confirmed COVID-19 patients, or those who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19. Hand hygiene is a major component of Standard Precautions and one of the most effective methods to prevent transmission of infection. Respiratory hygiene and cough etiquette by the patient are also considered parts of Standard Precautions as a source control measure..

All staff, patients and visitors should wash their hands with soap and water or decontaminate their hands with alcohol-based hand rub (ABHR), containing at least 60 percent alcohol, when entering and leaving areas where patient care is being delivered.

Hand hygiene must be performed immediately before every episode of direct patient care and after any activity/task or contact that potentially results in hands becoming contaminated, including before and after putting on and removing personal protective equipment (PPE), and after equipment decontamination and waste handling.

In addition to hand hygiene and physical distancing, to reduce the risk of direct contact from infectious droplets from the patient to the health care worker (HCW), the use of PPE should be guided by a risk assessment of the anticipated extent of patient contact and exposure to blood, body fluids, respiratory secretions or excretions, and exposure to contaminated equipment and surfaces.

HCWs should assess the likelihood of exposure to infectious agents before selecting the appropriate actions and/or PPE to minimise the risk of exposure for the specific patient, other patients in the environment, HCWs, visitors and others.

Key elements of Standard Precautions:

- **Hand hygiene** - perform hand hygiene before and after touching a patient/client, before and after clean or aseptic procedures, after touching patient surroundings, as well as before and after putting on and taking off PPE.
- **PPE** - assess the risk of exposure to body substances or contaminated surfaces before any health care activity. Select PPE based on an assessment of likely exposure risks. For example, gloves if your hands may be in contact with body fluids, an apron or gown to prevent soiling of clothing, a face shield/mask/goggles if droplets or splashes are likely to be generated near your face, for example, taking a nasopharyngeal swab.
- **Respiratory hygiene and cough etiquette** - sneezing or coughing into the crook of your elbow or covering coughs and sneezes with a tissue, then putting the tissue in a bin and cleaning your hands.
- **Safe use and disposal of needles and other sharps**
- **Aseptic 'non-touch' technique** - for all invasive procedures, including appropriate use of skin antisepsis

³ Current COVID-19 case definition: www.health.govt.nz/covid19-case-definition

- **Patient care equipment** – clean, disinfect and reprocess reusable equipment between patients.
- **Appropriate cleaning and disinfection** - of environmental and other frequently touched surfaces.
- **Safe waste management**
- **Safe handling of linen**

Refer to the World Health Organization (WHO) poster on standard precautions for further information, available at: <https://www.who.int/csr/resources/publications/standardprecautions/en/>

Transmission-based Precautions

Transmission-based Precautions are used when Standard Precautions alone are insufficient to prevent cross transmission of an infectious agent when caring for a patient with a known or suspected infectious agent.

Contact Precautions

Used to prevent and control infection transmission via direct contact or indirectly from the immediate care environment (including care equipment). **Examples include:** diarrheal illnesses, multi drug resistant organisms, COVID-19, open infectious wounds.

In addition to Standard Precautions listed above:

- gloves and an apron or fluid-resistant long sleeve gown should be worn by the health care worker for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment.
- See **Use of PPE** section for additional information on whether an apron or gown should be worn.
- The patient should be allocated a single room and a toilet.

Droplet Precautions

Used to prevent and control infection transmission over short distances via droplets (>5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level. **For example:** Influenza, COVID-19, Pertussis, Meningococcal meningitis.

In addition to Standard Precautions listed above:

- wear a surgical mask to protect the nose and mouth for all interactions with a known or suspected infectious patient, which is generally donned upon room entry or when interactions mean that physical distancing of 1 metre cannot be maintained.
- wear eye protection (goggles or face shield) if exposure to respiratory secretions is anticipated by touching the eyes or patient coughing or sneezing
- a mask should be worn by the patient whilst awaiting assessment, or for any movement outside of a single room, along with strict adherence to respiratory hygiene and cough etiquette.

Airborne Precautions

Used to prevent and control infection transmission over any distance via aerosols (<5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level. Infections transmitted by the airborne route include measles, pulmonary and laryngeal tuberculosis and chicken pox and health care workers must adhere to airborne precautions when caring for patients with these pathogens.

Examples include: pulmonary and laryngeal tuberculosis, measles and chicken pox. See also the **Aerosol Generating Procedures section** for additional information related to COVID-19.

In addition to Standard Precautions listed above:

- wear a N95/P2 respirator that you fit check before room entry for all interactions with a known or suspected infectious patient. *Refer to fit checking section in Role of face masks and respirators.*
- a respirator should be worn by the patient whilst awaiting assessment, or for any movement outside of a single room, along with strict adherence to respiratory hygiene and cough etiquette.
- patients in a hospital setting should be placed in an airborne infection isolation room (negative pressure room).

For patients admitted to a DHB acute-care hospital who are probable, or confirmed COVID-19 cases, or meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19⁴, the implementation of Standard, Contact, and Droplet precautions are required. If a medical procedure that generates aerosols, an aerosol generating procedure (AGP), is being undertaken, then Airborne Precautions are required in addition to Contact Precautions.

For further information refer to Frequently Asked Questions at: www.health.govt.nz/ppe-health

3. Organisational preparedness for preventing and controlling COVID-19

Preventing transmission of SARS Cov-2 in the health care setting requires a multi-faceted approach to ensure early identification and containment measures are in place, engineering, environmental, and administrative controls are established, and appropriate personal protective equipment is available. These infection prevention and control principles can be considered as a hierarchy of controls:

3.1 Elimination of potential exposure – ensuring triage, early recognition, and source control

- Risk assessment is key to ensuring cases meeting the Clinical and Higher Index of Suspicion (HIS) criteria are identified on entry to acute care facilities and are isolated and cared for according to IPC guidance to protect patients, visitors, and health care workers.
- Cases meeting the Clinical and Higher Index of Suspicion criteria signal the need to test, isolate, and implement administrative controls.
- Source control is critical, including the promotion of hand hygiene and respiratory hygiene, and prompt implementation of IPC precautions.
- A diagnostic test will prompt further actions as per organisational protocols, including notification to relevant services: Clinical Microbiology, Infectious Diseases, General Medicine, the IPC service, and Public Health Unit.

3.2 Implementation of administrative controls

Administrative controls are policies designed to prevent and reduce exposure and transmission of COVID-19 in the acute care setting and include, but are not limited to:

- sustainable IPC infrastructures and activities;
- implementation of appropriate IPC measures (e.g. Standard Precautions for all patients);
- education of all health care workers, patients and visitors around hand hygiene and respiratory hygiene;

⁴ Current COVID-19 case definition: www.health.govt.nz/covid19-case-definition

- the safe and appropriate donning and doffing of PPE and other practices designed to prevent transmission of COVID-19;
- ensuring adherence to all IPC policies and procedures for all aspects of health care;
- implementing screening in high-risk areas such as emergency departments, using Standard and Transmission-based Precautions and appropriate triage of patients who meet the Clinical and Higher Index of Suspicion (HIS) criteria.

Administrative controls also include the design and use of appropriate work processes and systems, including access to prompt laboratory testing, and provision and use of suitable work equipment and materials that support and enhance the efforts of HCWs to contain and control the risk of infection.

Effective strategies need to address environmental, organisational, and individual barriers to adherence. Intervention programmes need strong leadership and the involvement of all staff at all levels. Infection prevention does not rely solely on a functional infection prevention and control team, but also depends on hospital organisation, bed occupancy, staffing, and workload.

Administrative measures specifically related to HCWs include:

- provision of adequate education and training for HCWs;
- ensuring an adequate patient-to-staff ratio;
- establishing a surveillance process for acute respiratory infections potentially caused by COVID-19 virus among HCWs;
- ensuring that HCWs understand the importance of promptly seeking medical care;
- ensuring adequate and appropriate consumables (for example non sterile gloves);
- monitoring HCW compliance with Standard and Transmission-based Precautions and providing mechanisms for improvement as needed (eg, 'buddy' systems to support correct use of PPE).

3.3 Implementation of engineering and environmental controls

The control of exposure at source, including adequate ventilation systems and effective environmental decontamination physically reduces exposure to infection.

Controls to address the infrastructure of the acute care facility aim to ensure adequate ventilation in all areas of the facility, as well as adequate environmental cleaning.

Engineering controls include the use of Airborne Infection Isolation Rooms (AIIRs) with negative pressure maintained in the room relative to surrounding areas and adequate air changes per hour as per current guidance. AIIR are required when aerosol-generating procedures are to be performed on COVID-19 cases. Engineering controls also include whole building ventilation, and the use of HEPA filtration in high-risk patient areas.

Environmental controls are necessary due to the potential for widespread contamination of patient rooms or environments. Environmental persistence of pathogens pose a significant risk to patients and staff. Effective cleaning and decontamination procedures are necessary to ensure removal of pathogens from the environment.

3.4 Protection of health care workers and patients using hand hygiene and personal protective equipment (PPE)

Hand Hygiene

Adhering to best practice in hand hygiene is a central tenet of infection prevention given the high effectiveness of this strategy in reducing the transmission of infection. HCWs should follow the '5 moments for hand hygiene' before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluids, after touching a patient, and after touching a patient's surroundings.

Regular monitoring and feedback of adherence to hand hygiene as well as support and ongoing education should be provided for health care workers, patients, and visitors on best practice hand hygiene in the health care setting. Visual reminders and adequate supplies of alcohol-based hand rub (ABHR) should be in place at all times to support adherence to hand hygiene requirements.

Personal Protective Equipment

The choice of PPE when caring for a probable or confirmed COVID-19 case, or those who meet Clinical and Higher Index of Suspicion (HIS) Criteria, will reflect the potential for transmission (contact and droplet or contact and airborne) and the context in which care is given. The provision and use of personal protective equipment (PPE) with education on donning and doffing equipment safely, will protect staff, patients and visitors.

It is important to emphasise that there are many opportunities for the transmission of SARS CoV-2 and PPE is only one, albeit an important measure, to protect HCWs and others from being exposed to the virus. The use of PPE should be accompanied by strict adherence to national and local IPC policies and procedures, and the overarching IPC principles of hand hygiene, cough and respiratory etiquette, physical distancing, cleaning of surfaces and frequently touched item and staying home when unwell.

Regular monitoring and feedback of adherence to PPE guidance as well as support and further education for staff when needed will improve compliance, safe practice and identify gaps in PPE training and advice. Identifying barriers to safe donning and doffing of PPE and enabling workable solutions will ensure the safety of health care workers, patients and visitors is maintained.

For further information refer to: www.health.govt.nz/ppe-health

Staff caring for probable or confirmed COVID-19 patients

Staff assigned to care for probable or confirmed COVID-19 patients or those who meet the Clinical and Higher Index of Suspicion (HIS) criteria should meet the occupational health policy for fitness to work in this situation.

There should be adequate staff allocated to work in this area, with high staff to patient ratio ensured.

4. IPC procedures for DHB acute care hospitals

Case definition

Case definitions	Ministry of Health agreed case definition
Management of cases under investigation	Primary care guidance Hospital care: see your local DHB clinical pathway

1. Pre-hospital interface	Primary care or ambulance service to notify the emergency department or the designated SMO at the DHB of the patient transfer to hospital.
2. Public calls to emergency departments	Refer to Healthline on 0800 538 5453.
3. Calls from community providers	Refer to Healthline on 0800 538 5453 or the local Public Health Service.
4. Patients presenting to emergency departments	<p>Triage and assessment. See Alert Level 1: Risk assessment questions if COVID-19 status is unknown</p> <p>Manage all patients who are probable or confirmed COVID-19 cases or those who meet both the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19 with Standard and Transmission-based Precautions (Contact and Droplet Precautions). These patients are to wear a surgical mask until they can be moved to a single room or at least 1m from other patients. They should be instructed to follow cough etiquette and respiratory and hand hygiene.</p> <p>Manage patients who present with no new or worsening respiratory symptoms but in the last 14 days have travelled overseas or are a close contact of someone who is a probable or confirmed COVID-19 case with Standard and Transmission Based Precautions (Droplet Precautions) until SARS-CoV-2 infection can be excluded. These patients are to wear a surgical mask.</p> <p>HCWs should wear a surgical mask if they cannot maintain 1 metre distancing.</p>
5. PPE requirements for family/whānau who are accompanying the patient	<p>Provide family/whānau members with a surgical mask to wear and provide instruction on hand hygiene when supporting the patient during transfer to hospital assessment in the emergency department and any subsequent transfer to other departments or ward.</p> <p>Where possible, restrict the number of visitors. Visitors should be told not to visit shared communal areas within the hospital such as the cafeteria/café and shared seating areas.</p>

<p>6. Patient placement in the emergency department</p>	<p>Put the patient who is a probable or confirmed COVID-19 case or those who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19 in a single neutral pressure room with the door closed, or an airborne infection isolation room (AIIR) (negative pressure room) if available.</p> <p>The patient should continue to wear a surgical mask if able once in a single room. They should also be supported to follow respiratory and hand hygiene.</p> <p>The health care worker (HCW) should adhere to Contact and Droplet precautions when entering the room. They should also follow the '5 moments for hand hygiene' during all interactions.</p> <p>If the patient is transferred to a ward or needs to go to another department e.g. radiology department, a surgical mask should be worn by the patient.</p> <p>Put the patient who has no new or worsening respiratory symptoms but in the last 14 days has travelled overseas or is a close contact of someone who is a probable or confirmed COVID-19 case in a single room if available or move them to at least 1m from others.</p>
<p>7. PPE for health care workers assessing the patient</p>	<p>When assessing a patient who is a probable or confirmed COVID-19 case or those who meet the Clinical and Higher Index of Suspicion (HIS) criteria, HCWs should follow Contact and Droplet Precautions unless an aerosol generating procedure* (AGP) is to be performed. Then they should follow Contact and Airborne Precautions.</p> <p>PPE for Contact and Droplet Precautions = long sleeve impervious gown, gloves, eye protection and surgical mask.</p> <p>PPE for Contact and Airborne Precautions = long sleeve impervious gown, gloves, eye protection and particulate respirator (N95/P2 mask).</p> <p>For guidance around personal protective equipment (PPE) use in health care settings, see: www.health.govt.nz/ppp-health</p>
<p>8. Collection of clinical specimens</p>	<p>Ensure the collection, type of specimen and transport media required are followed for the receiving laboratory.</p> <p>The HCW must follow Contact and Droplet precautions and wear the appropriate PPE (apron or gown, surgical mask, eye protection and gloves).</p> <p>For hospitalised patients, consider collecting both upper and lower respiratory tract specimens. This should preferably occur in a single neutral pressure room with the door closed.</p>

	<p>Refer to Alert Level 1: Personal Protective Equipment (PPE) for taking COVID-19 naso/oropharyngeal swabs</p>
<p>9. Discharge of probable or confirmed cases or those who meet the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19 that do not require hospitalisation</p>	<p>Follow the established DHB pathway (Infectious Diseases, Clinical Microbiology, General Medicine services etc).</p> <p>Inform the local public health unit of the patient details.</p>
<p>10. Admission to hospital, and placement of probable or confirmed cases, or those who meet the Clinical and Higher Index of Suspicion criteria for COVID-19</p>	<p>Patient should be placed in an AIIR or a single neutral pressure room with the door closed. The room should have its own en suite bathroom if possible. HCW must follow Contact and Droplet Precautions. If AGP are to be performed then they must be placed in an AIIR. If an AGP* is being performed, follow Contact and Airborne Precautions, room recommendations.</p> <p>Priority to AIIR should be given to patients presenting with signs and symptoms of airborne diseases such as measles, chickenpox or pulmonary/laryngeal TB, as COVID-19 is primarily transmitted by droplets.</p> <p>For critically ill patients where the HCW is required to remain in the patient room or bed space continuously (eg, more than one hour), because of multiple procedures, a particulate respirator (N95 mask) may be worn.</p> <p>Patient care equipment should be single use if possible. Reusable equipment should as far as possible be allocated to the individual patient and used for the duration of the patient's stay.</p> <p>If a carer (eg, a parent of a child) stays in hospital to provide care for a patient who meets the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19, or is a probable or confirmed COVID-19 case, they should wear a surgical mask while in the room, and be taught how to put on, remove, and dispose of the mask safely, and how to practice hand and respiratory hygiene.</p>
<p>11. Entry into the room</p>	<p>There should be clear signage on the door with instructions on the level of PPE required before entering the room and the sequence for donning and doffing PPE. Access is limited to essential HCW only.</p> <p>Local policy should guide non-essential HCW access to the room, for example, meal delivery.</p> <p>Maintain a record of all people who enter the patient's room. This includes visitors and the names of accompanying family/whanau to</p>

	<p>support any future contact tracing. Ensure names of HCWs are recorded in notes, for future reference.</p> <p>As with any other health and safety issue identified (including blood and body fluid exposures), HCWs who experience a failure in PPE should notify their Occupational Health Department for advice.</p>
<p>12. Patient charts</p>	<p>Placement of medical records/charts is to be separated from clinical care areas.</p> <p>HCWs should not perform any documentation, either paper-based or electronic, without first removing PPE and performing hand hygiene.</p>
<p>13. Food service</p>	<p>Local policy should guide non-essential HCW access to the room, including meal delivery.</p> <p>Standard Precautions should be used when handling used crockery and cutlery.</p> <p>Unopened food items or food waste is to be discarded as per local waste policy.</p>
<p>14. Cohorting patients with probable or confirmed COVID-19</p>	<p>A cohort is a bay or room with two or more patients with probable or confirmed COVID-19. The decision to create cohort rooms or wards should be undertaken in discussion with senior management, Clinical Leads, Clinical Microbiologists, Infectious Diseases Physicians, and the IPC service.</p> <p>Cohort wards should be separate from other patient areas and are not to be used as a thoroughfare.</p> <p>Clear signage indicating the appropriate Transmission-based Precautions and required PPE is to be placed at the entrance of the cohort room or ward.</p> <p>Where possible HCWs that have been assessed as competent in donning and doffing the appropriate PPE should be allocated to work in cohort room or wards.</p> <p>A system to support correct use of PPE is desirable eg a 'buddy' system.</p> <p>The sequence for donning and doffing PPE should be visually indicated, and a place for these activities should be designated.</p> <p>Assigning a dedicated team of staff to care for patients in isolation/cohort rooms/areas is an additional infection control</p>

	<p>measure. This should be implemented whenever there are sufficient levels of staff available (so as not to have a negative impact on non-affected patients' care).</p>
15. Handling of linen	<p>Infectious linen should be handled as per local DHB IPC guidance.</p>
16. Cleaning	<p>Use an appropriate hospital grade disinfectant daily with activity against respiratory viruses, including coronavirus, or use a sodium hypochlorite solution (bleach) to clean the patient room.</p> <p>The cleaner should wear appropriate PPE. This will depend on the level of care being provided to the patient.</p> <p>Cleaning staff should be updated regularly on the appropriate PPE to wear. Frequently touched surfaces should be wiped down at regular intervals particularly after AGPs have been performed.</p> <p>If aerosol-generating procedures have occurred on the day of discharge, then the door of the room should remain closed for a stand-down period of 20 minutes before cleaning can commence.</p> <p>On discharge of patient, a terminal clean should be done as per local DHB IPC guidance.</p>
17. Waste	<p>Infectious clinical waste should be disposed as per DHB IPC guidance.</p> <p>Large volumes of waste may be generated by frequent use of PPE; ensure regular emptying of waste to avoid over-filled bins.</p>
18. Diagnostic testing	<p>See local laboratory guidance.</p>
19. Clinical investigations and procedures	<p>Use portable equipment wherever possible.</p> <p>Where this not possible, discuss with the relevant department before transferring the patient. The patient should go directly into the imaging/treatment room. The patient must wear a surgical mask on transfer to and from department, and during the procedure. The HCW must follow Contact and Droplet Precautions. Patient should have staff escort to and from procedure.</p> <p>Clean equipment and procedure room as per local DHB IPC guidance,</p>
20. Moving patients within the hospital	<p>The movement and transport of patients from their room should be limited to essential purposes only. Staff at the receiving department should be advised that the patient has probable or confirmed COVID-19 or meets the Clinical and Higher Index of Suspicion (HIS) criteria.</p> <p>The patient must wear a surgical mask on transfer to and from the department and must not wait in communal areas. If possible, patients should be placed at the end of clinical lists.</p>

<p>21. Visitors to hospitalised patients</p>	<p>Visitors should be restricted to essential visitors only.</p> <p>If visitors meet the case definition for COVID-19, have been identified as a close contact of the case, or meet the Higher Index of Suspicion (HIS) criteria for COVID-19, they should not be visiting the hospital. They should use other means of contacting the patient, such as digital communication.</p> <p>Visitors should be screened for the Clinical and Higher Index of Suspicion (HIS) criteria for COVID-19 at each visit.</p> <p>Signage should be visible at the entrance to the room and provide guidance on the required PPE (a surgical mask) and practicing hand hygiene before entering and leaving the room.</p> <p>A surgical mask should be provided. Visitors should be instructed on how to don and doff the mask appropriately and dispose of it safely. Both written and verbal advice around safe practice should be provided by the IPC Service, where feasible.</p> <p>Visitors should also receive advice on how and when to practice hand hygiene.</p>
<p>22. Hospitalised patient is ready for discharge</p>	<p>The clinical team will determine when the patient is well enough for discharge.</p> <p>The Clinical Microbiologist, Infectious Diseases specialist, or IPC Service should be involved in discharge planning and the Public Health Unit notified.</p> <p>Follow the Updated advice for health professionals: novel coronavirus (COVID-19)</p>
<p>23. Management of deceased patients</p>	<p>PPE must be worn when handling the deceased. The body must be placed in a fluid-proof body bag. Then manage with Standard Precautions.</p>
<p>24. HCW with a travel history</p>	<p>Follow the Updated advice for health professionals: novel coronavirus (COVID-19)</p>
<p>25. Management of patients hospitalised for an unrelated medical event who meets the Higher Index of Suspicion (HIS) criteria for COVID-19</p>	<p>When interacting with patients who meet the Higher Index of Suspicion (HIS) criteria, HCWs should wear a surgical mask if they cannot maintain 1 metre distancing. Standard and any Transmission-based Precautions should be followed at all times until the patient is discharged or until the 14 days self-isolation period has ended; whichever is the soonest.</p> <p>If the patient needs to go to another department e.g. Radiology department, a surgical mask should be worn by the patient.</p>

	<p>If they do develop symptoms they should be managed with Contact and Droplet Precautions until SARS-CoV-2 infection can be excluded.</p> <p>Ensure that the local public health team have been notified, to assist with any quarantine requirements.</p> <p>If they remain in hospital for more than 14 days after returning from overseas or since their last contact with a probable or confirmed case, following discussion with the IPC service, they can be removed from Transmission-based Precautions.</p>
<p>26. Outbreak management</p>	<p>If an outbreak of COVID-19 is suspected, implement the Outbreak Management Policy as per local DHB guidance, including contacting relevant departments or specialists such as the IPC service, Clinical Microbiologist and Public Health Unit.</p>

5. References

1. Branch-Elliman W, Savor Price C, Bessesen MT, Perl TM. Using the Pillars of Infection Prevention to Build an Effective Program for Reducing the Transmission of Emerging and Reemerging Infections. *Curr Envir Health Rpt* (2015) 2:226–235. DOI 10.1007/s40572-015-0059-7
2. Centers for Disease Control and Prevention (CDC). Interim infection prevention and control recommendations for patients with confirmed 2019 novel Coronavirus (2019-nCoV) or persons under investigation for 2019-nCoV in healthcare settings. Updated 19 June 2020. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>, accessed 25 June 2020.
3. CDC. Guidelines for Environmental Infection Prevention and Control in Facilities, 2003. C.IV. Infection-Control and Ventilation Requirements for All Rooms. <https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html>, accessed 30 June 2020.
4. Communicable Diseases Network of Australia. National guidelines for public health units, v2.11, 22 May 2020 <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>, accessed 23 May 2020.
5. Government of Western Australia. Department of Health. COVID-19 Infection Prevention and Control in WA Healthcare Facilities. Version 7, 14 May 2020. <https://ww2.health.wa.gov.au/-/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Infection-Prevention-and-Control-in-Hospitals.pdf>, accessed 20 May 2020.
6. Public Health England Covid-19: Infection prevention and control guidance. Updated 21 May 2020, accessed 23 May 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/88668/COVID-19_Infection_prevention_and_control_guidance_complete.pdf
7. World Health Organization (WHO). Standard precautions. <https://www.who.int/csr/resources/publications/standardprecautions/en/> accessed 20 May 2020. World Health Organization (WHO).
8. World Health Organization (WHO). 2014. Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care. https://www.who.int/csr/bioriskreduction/infection_control/publication/en/ accessed 10 June 2020.

9. WHO. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected. Interim guidance, 19 March 2020. [www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](http://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125), accessed 23 May 2020.
10. Zingg W, Holmes A, Dettenkofer M et al. Hospital organisation, management, and structure for prevention of health-care-associated infection: a systematic review and expert consensus. *Lancet Infect Dis* 2015; 15: 212–24.