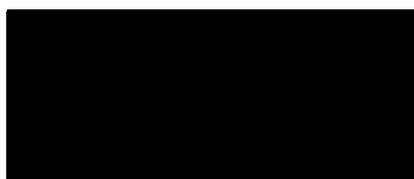




3 June 2020



Dear 

**Re: OIA request – St Margaret’s Hospital COVID-19 cluster**

Thank you for your Official Information Act request received 11 May seeking information about the St Margaret’s Hospital and Rest Home COVID-19 cluster from Waitematā District Health Board (DHB).

On 11 May you submitted the following request:

1. **Can I please have any formal reports or documents about the St Margaret’s COVID-19 cluster?**
2. **Can I also please have copies of correspondence between hospital management, including clinical leads, about the cluster?**
3. **Can I please have any formal documents or reports about the use of personal protective equipment during COVID-19?**
4. **Can I also please have copies of correspondence between hospital management, including clinical leads, about the use of personal protective equipment during COVID-19?**

**I understand that names and personal details of patients or staff members may need to be redacted for privacy.**

We contacted you the following day to ask that you re-scope your request. You responded with the following re-scoped request, below.

Before responding to your specific questions, it may be useful to provide some context about how COVID-19 health and safety protocols have been managed at Waitakere Hospital.

The COVID-19 Incident Management Team (IMT), together with the Associate General Manager (AGM) of Waitakere Hospital, has held regular meetings with hospital managers over the past few months. This was to provide updates from IMT and to hear feedback, as well as give managers a forum to raise concerns specifically related to COVID-19 planning and the response to it at Waitakere Hospital.

During the COVID-19 response, members of the IMT, with the AGM, met with the CNMs regularly to provide updates from the IMT and also to get feedback and hear any concerns that the nurses may have had.

Daily clinical meetings occurred at morning handover, led by Waitakere Hospital's Clinical Lead and attended by general medical doctors, the AGM where available and the operations manager from Waitematā Central - Waitematā DHB's 24/7 clinical staff planning and co-ordination service for North Shore and Waitakere hospitals.

Meetings were held with various staffing groups including Clinical Support Services, Allied Health and at nursing handovers; informal ward meetings held throughout April were usually with the team leader/ manager in attendance with.

The AGM has met individually with staff groups on an informal basis over the past several weeks. No health and safety issues were raised at these meetings. Infection Prevention and Control (IPC) also attended some meetings.

Notes are not formally taken at the meetings described above.

In response to your request, we are able to provide the following information:

- 1. Could I please have all formal documents, reports and memos relating to the St Margaret's cluster? I understand that names and personal details of patients or staff members may need to be redacted for privacy reasons. I hope this means personal privacy will not be a barrier to releasing any of this information.**

Please find attached the following documents which provide background and information on the decisions taken relating to the admission of the COVID-19 patients from the St Margaret's facility to Waitakere Hospital:

**Attachment 1:** Incident Review Report COVID-19 Staff Infections Waitakere Hospital April 2020

**Attachment 2:** Situation report – Friday 17 April 2020, CHT St Margaret's COVID-19 outbreak

**Attachment 3:** Situation report – Saturday 18 April 2020, CHT St Margaret's COVID-19 outbreak

- 2. And can I please have any formal documents or reports about the use of personal protective equipment (PPE) during COVID-19? Including any complaints from staff regarding this.**

No formal complaints have been received and there have been no notices from any staff regarding health and safety concerns over this time. However, we are aware that some staff expressed concern in the ward environment with regards to the supply or consistency of PPE.

This was addressed through the processes described above. Full PPE was available to staff at all times. The Incident Review Report referred to in Attachment 1 found there were problems with the usability of the PPE and changes in types of PPE provided, which was stressful for staff.

These changes in the types of PPE provided were a result of the high global demand which placed pressures on our national and regional supply chains at that time.

As previously noted, formal, documented minutes are not kept in relation to clinical discussions and meetings. The Incident Review Report provided in Attachment 1 is the only report which covers the use of PPE during COVID-19.

Waitematā DHB has ensured that all staff have access to detailed and comprehensive advice, guidelines and resources, such as instructional videos via our staff intranet (StaffNet) where a dedicated COVID-19 PPE page has been set up:

**Attachment 4:** Screenshots of StaffNet (staff intranet) COVID-19 resources (screen grabs taken at 1:20pm, 27 May).

Documents and information available to staff follow the Ministry of Health (MoH) and Northern Region Health Coordination Centre (NHRCC) guidelines:

**Attachment 5:** Donning and doffing guidance.

**Attachment 6:** Personal Protective Equipment (PPE) requirement for staff caring for COVID-19 patients in hospital – also found on the MoH website at:

[www.health.govt.nz/system/files/documents/pages/hp7353-02-ppe-caring-for-covid-19-positive-patients-in-hospital-v2.pdf](http://www.health.govt.nz/system/files/documents/pages/hp7353-02-ppe-caring-for-covid-19-positive-patients-in-hospital-v2.pdf)

**MoH hand hygiene guidance and posters - visit:**

<https://www.health.govt.nz/our-work/diseases-and-conditions/COVID-19-novel-coronavirus/COVID-19-information-specific-audiences/COVID-19-personal-protective-equipment-workers/personal-protective-equipment-use-non-health-workers#hand>

Other PPE and COVID-19 information available via StaffNet includes policies, procedures, clinical guidelines, screening tools, clinical assessment tools and resuscitation standards.

I trust that this information is helpful.

Waitematā DHB supports the open disclosure of information to assist community understanding of how we are delivering publicly funded healthcare. This includes the proactive publication of anonymised Official Information Act responses on our website from 10 working days after they have been released.

If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider your views.

Yours sincerely



**Tamzin Brott**  
**COVID-19 Executive Lead**  
**Waitematā District Health Board**

## Incident Review Report COVID-19 Staff Infections Waitakere Hospital April 2020

### Review Panel Members:

**Mark Shepherd**, Director, Provider Healthcare Services, Waitematā DHB (Chair)

**Dr Penny Andrew**, Clinical Director of Quality, Director of the Institute for Innovation and Improvement, Waitematā DHB

**Geraldine Kirkwood**, NZNO representative, Manager of Outpatient Services, Waitakere Hospital, Waitematā DHB

**Sue Hayward**, Chief Nursing and Midwifery Officer, Waikato DHB

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## Glossary

ADU	Acute Assessment and Diagnostic Unit
ARC	Aged Residential Care
ARPHS	Auckland Regional Public Health Service
AT&R	Assessment, Treatment and Rehabilitation
CIMS	Coordinated Incident Management System
CNM	Charge Nurse Manager
COVID-19	Coronavirus disease 2019
CTAG	Clinical Technical Advisory Group
DHB	District Health Board
ED	Emergency Department
ID	Infectious Diseases
IMT	Incident Management Team
IPC	Infection, Prevention and Control Team
Level 4 alert	The highest level of alert of New Zealand's COVID-19 four-level alert system
NRHCC	Northern Region Coordination Centre
NSH	North Shore Hospital
PPE	Personal Protective Equipment
SARS-CoV-2 coronavirus	Severe Acute Respiratory Syndrome Coronavirus 2
WTH	Waitakere Hospital

## EXECUTIVE SUMMARY

### Purpose

1. Between 25 - 30 April 2020, three nurses working at Waitakere Hospital (WTH) tested positive for the SARS-CoV-2 coronavirus, the virus that causes coronavirus disease 2019 (COVID-19). In the week prior to testing positive, the nurses had been working on a ward caring for a group of elderly patients with COVID-19. The patients were from CHT St Margaret's Hospital and Rest Home (St Margaret's), an aged residential care (ARC) facility in West Auckland.
2. In response to concerns about this adverse event, Waitematā District Health Board (Waitematā DHB) requested an investigation to understand the circumstances around how these staff members may have become infected. A panel was appointed to conduct the investigation. The panel members comprised: a New Zealand Nurses Organisation (NZNO) representative, who was supported by a non-panel NZNO member; the Chief Nursing and Midwifery Officer from Waikato District Health Board; and two senior Waitematā DHB executives. The panel was asked to review and assess relevant policies and processes in place at WTH to protect and keep staff and patients safe when caring for positive COVID-19 patients; identify any systems issues that may have contributed to the staff becoming infected with COVID-19; and identify and make any recommendations about improvements that could help to prevent similar incidents from happening again.<sup>1</sup> This report summarises the findings of the investigation panel.
3. A statement of some observations of Sue Hayward, Chief Nurse and Midwifery Officer, Waikato DHB, is attached at **Appendix Two**.
4. The panel has not made any finding as to the origin or chain of transmission of the nurses' infections, as this is the role of the Auckland Regional Public Health Service (ARPHS). A report from ARPHS on 11 May 2020: *St Margaret's Private Hospital COVID-19 Outbreak: Source and Transmission among Cases in Waitakere Hospital*, is attached at **Appendix Three**.

### Method

5. The investigation process included:
  - Reviewing documentation including policies, protocols and training material
  - Speaking with a range of people: members of the COVID-19 Incident Management Team (IMT); Waitakere Hospital senior managers; the Charge Nurse Manager (CNM1), the three infected nurses, other nurses, and the geriatrician working on the ward; nurse educators and trainers; the Infectious Diseases (ID) and Infection Prevention Control (IPC) IMT leads and the IPC Team
  - Three open forums with the charge nurse managers and nursing staff from adjacent wards at WTH
  - Considering regional, national and international information and what is being learnt about the challenges of managing and caring for COVID-19 patients

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<sup>1</sup> Terms of Reference for the investigation panel are attached at **Appendix One**.

6. At the time of finalising this report, further WTH nursing staff have tested positive for COVID-19 virus. These staff were contacts of the three infected nurses; they have not been spoken to nor included as part of this report.

## Key Findings

- The nursing staff provided exemplary care to the six patients on the ward; they were compassionate, professional and worked to ensure the patients were provided with the best care possible.
- The decision to transfer the residents was made quickly on a Friday, and staff had a short time to plan and respond putting together a COVID-ready ward.
- The patients required full nursing care and deteriorated relatively quickly. Consequently, nurses needed to spend long periods of time at the patients' bedsides.
- There was no way for nursing staff to communicate with staff outside the patients' rooms which increased the frequency of donning and doffing PPE.
- Full PPE was available to staff at all times. However, there were problems with the usability of the PPE and changes in types of PPE provided, which was stressful for staff.

## INTRODUCTION

### Background

7. In response to the global COVID-19 pandemic, Waitematā DHB made preparations to receive and care for patients with COVID-19 at its two hospitals, North Shore Hospital (NSH) and Waitakere Hospital (WTH). Preparations in March 2020 included setting up an IMT, identifying areas patients with COVID-19 would be placed, ensuring equipment and resources were in place, and staff training.
8. At WTH, two wards were identified to take COVID-19 patients: a ward area with negative pressure and side rooms and an 'overflow' ward that would take patients if the first area was full or negative pressure rooms were not required. A model of care was agreed with patients to be admitted under the care of the acute medical team. A charge nurse manager (CNM1) was appointed to manage the two areas. CNM1 worked with senior managers to ensure the wards were ready to take COVID-19 patients. Planning was detailed and included renovations, ensuring equipment, including personal protective equipment (PPE) as per the policy for a COVID responsive ward, was stocked and available, ready to be used. The Infection, Prevention and Control Team (IPC Team) and clinicians from the IMT walked through the areas to confirm readiness. These areas were prepared for management of patients via the Emergency Department(ED)/Assessment and Diagnostic Unit (ADU). Three other COVID-19 patients were

admitted to WTH in late March and early April and were managed, without incident and in accordance with the plans.

9. On 07 April, Waitematā DHB was notified of an outbreak of COVID-19 at St Margaret's ARC. The IMT was asked to support the facility in partnership to manage the situation. Daily incident management meetings were held with representatives from the facility, the Auckland Regional Public Health Service, (ARPHS) and Waitematā DHB staff to plan and address issues, which included supply of equipment and staffing. Senior managers and nursing staff from WTH were asked to volunteer to support the facility given it is an organisation independent of the DHB. Over the following 10 days it became difficult to staff the facility in increasing numbers. There was a shortage of bureau nursing staff, the DHB had to rely on its staff to volunteer, and there was a reluctance to work at the facility. By the evening of Thursday, 16 April it became evident that it would be very difficult to safely staff the ARC facility over the weekend.
10. On Friday, 17 April a series of incident management meetings were held over the morning to assess the staffing situation at the facility. At 13:00 hours a decision was made to move up to 20 residents out of the facility. Waitematā DHB's IMT with senior managers and senior geriatricians working with the IMT, considered the options of transferring the patients to WTH or NSH. It was agreed that up to 20 residents would be transferred to WTH, six positive (confirmed) COVID-19 residents would be transferred to WTH that afternoon to be admitted directly to the overflow ward under the care of the geriatric team with a further group of residents to be transferred the following day. Staff on the ward at WTH had approximately three hours to prepare for the arrival of the six positive COVID-19 residents. Waitematā DHB's geriatrician based at WTH, who had overseen the care of the residents at St Margaret's since 15 April, would take over the care of the residents at WTH and the other geriatricians at WTH would manage the care of the other patients on the assessment, treatment and rehabilitation ward (AT&R ward).
11. The rationale for the decision to transfer the six residents to the overflow ward at WTH included that the residents were from West Auckland and would be nearer to their families to allow compassionate visiting; Waitematā DHB's geriatrician based at WTH would look after the patients on the ward -the geriatrician knew the residents and had been overseeing their care; the ward had been designated as an overflow ward for COVID patients, it was empty and was configured to cohort patients; and there was not a high need to use individual side rooms, as the residents did not need to be isolated from each other as all were COVID positive and none were unwell enough at the time to need aerosol generating procedures/negative pressure rooms. At the time it was considered the residents were not acutely unwell and did not require acute hospital care; they needed to be transferred to WTH in order to address the evolving outbreak and shortage of staffing at St Margaret's. Discussions with residents and their families were undertaken about their treatment and care prior to transfer.
12. CNM1 was advised that the six residents would be transferred to WTH at approximately 17:00 hours and admitted directly to the overflow ward. CNM1 worked with a senior manager to form a roster for nurses to staff the ward. A roster was developed with nursing staff from the adjacent wards – acute medicine and AT&R nursing staff. The ward was mainly staffed by geriatric rehab medicine nurses with approximately eight registered nurses (RNs) and three Health Care Assistants (HCAs) agreeing to the majority of the shifts. It was not possible with the available nursing staff to create a 'nursing bubble' roster with the staff working only on the COVID-19

cohort ward. Staffing challenges were exacerbated by exclusion of some staff as they are vulnerable workers and unable to work on the ward. It was acceptable for staff to work between wards so long as they remained on the ward with the COVID-19 patients for the entire shift, only working on a different ward on another shift. The Northern Region Health Coordination Centre has since published guidance<sup>2</sup> that reinforces this advice<sup>3</sup>.

13. Mid/late afternoon of 17 April, the IMT Clinical Lead, IMT ID Lead, and IPC clinical advisors were informed of the decision to transfer the residents to the cohort ward at WTH; prior to this they were not involved in discussions about where the St Margaret's residents should be placed. The clinicians discussed the options for placement: transfer to NSH ward 11 or ESC or one of the two wards at WTH. However, at this stage arrangements had been made to transfer the six confirmed cases to WTH and they were in transit. The clinicians recommended the further nine cases not be transferred to the same ward at WTH as initially planned, rather they be transferred to NSH the following day. This recommendation was made on the basis that the confirmed and probable cases should not be cohorted on the same ward.
14. For the medical staff a 'medical bubble' was developed with one senior geriatrician being involved with the patients and on-call over the entire period and the geriatrician taking measures to physically distance from colleagues. This was important to ensure the geriatrician team could be sustained and was available to support elderly patients in WTH and the community. The resident medical officers (registrars and house officers) were instructed not to attend the ward without speaking first with the senior geriatrician. Consequently, medical staff were not physically available on the ward to assist nursing staff, particularly after hours. The nursing staff described having to leave patients' rooms several times per shift in order to telephone and speak to the geriatrician. This practice was time consuming for the nurses and not standard practice. RMOs were not readily available to respond as is usual standard practice.
15. At 17:00 the residents (patients) were transferred and admitted directly to the ward. A nurse practitioner and registrar were on the ward ready to receive and clerk the patients. Four patients were placed in a four-bedded room and two patients in individual side rooms. All the patients required a high level of (full) nursing care, there were skin integrity issues and signs of dehydration. One of the patients required oxygen via nasal prongs. Over the following 48 hours the patients deteriorated becoming lethargic, confined to their beds, they were incontinent, all were coughing and were unable to follow instructions. Patients were all fully dependent on staff for their personal care.
16. All staff entering the patients' rooms used full (level 3) PPE: gloves, fluid repellent gowns, eye protection and a N95 mask, and followed the donning and doffing process that had been set up: donning outside the patients' rooms before entering, doffing gloves and gown in the bathroom (inside the patients' room), followed by removal of mask and eyewear outside the room. There was clear PPE signage inside and outside the rooms to guide staff; nursing staff had been fitted with N95 masks and trained to use PPE. The nurses informally observed each other donning and doffing to ensure the equipment was fitted correctly and removed. The geriatrician covering the ward advised the nursing staff to wear N95 masks in the patients' rooms on the basis that all

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<sup>2</sup> Guidance to reduce the risk of COVID-19 transfer for health care workers employed across multiple work environments. Northern Region Health Coordination Centre.

<sup>3</sup> Waitematā DHB subsequently changed this policy, see Appendix 4.

patients were coughing – some considerably, patients were requiring oxygen and there were four patients in one room which increased the viral load.

17. An IMT IPC clinical advisor reviewed the situation on the evening of 17 April and advised that the placement of the patients was a safe environment for all deployed staff following recommended IPC practices. An escalation management plan for the patients was needed if acute medical involvement was required. As planned, the IPC team visited the ward over the weekend to confirm IPC practices were in place and being followed. There was ongoing, daily PPE auditing that commenced in the week after this weekend. The auditing is undertaken by nurse educators and involves observation of donning and doffing with teaching and learning so that any issues are addressed at the time of observation.
18. Some senior medical staff and nursing staff at WTH raised concerns about the placement of the patients at WTH and the rostering of nursing staff to work between wards. This was reviewed by IMT clinical leaders who advised that it was acceptable for staff to work between wards so long as they remained on the ward with the COVID-19 patients for the entire shift, only working on a different ward on another shift; they maintained procedures for 'dirty' (PPE) and 'clean' (non-PPE) areas; they observed hand hygiene, wore scrubs, showered before leaving work, and left scrubs at work to be laundered. Shower facilities were available on the ward. Scrubs were not provided initially on Friday 17 April, however they were available and used from Saturday, 18 April. Although this enhanced PPE requirements it did create some difficulty identifying staff professions with all staff in scrubs. These practices were maintained by the staff.
19. There was a structured cleaning programme for the ward that was followed with cleaning staff using the recommended PPE. A register was arranged to log all staff entering the COVID ward area, in case contact tracing was required at a later date.
20. The nursing staff allocation was three nurses (registered and enrolled nurses) and a health care assistant, for the six patients. The patients' high care needs and deterioration meant nursing staff had to leave the patients' rooms multiple times per shift to get equipment/supplies, medications and speak to the geriatrician on the phone. This resulted in donning and doffing PPE several times per shift (some describing eight times per shift).
21. Monday, 20 April, was a particularly busy and challenging day for the staff, with one patient deteriorating rapidly over the day with oxygen needs progressively increasing. One of the patients died and had to be placed in a waterproof body bag, which was a different bag than the standard body bag. This was a particularly stressful time for the staff as some patients were unwell, confused, incontinent and requiring full care. This was the only time that the three nurses who tested positive for COVID-19 all worked on the ward on the same day.
22. There were problems with the usability of the PPE equipment that was regionally supplied: the gowns' velcro tabs loosened easily creating gaps at the back. The initial eyewear provided was a frame with removable lens. The lens was a hard plastic that could flick when removed. Initially the eyewear lens needed to be cleaned, with alternate eyewear provided some days later that contained a disposable lens. The eyewear was changed to goggles that didn't fit some staff with staff using a tie to hold the goggles in place. An alternate brand of N95 mask was supplied to replace the initial masks being used following an order for more N95 masks made by CNM1 on 22 April. The staff had not been fitted with the new masks and preferred the original mask. Nursing

staff were also concerned about the exposure of their hair and shoes as these areas were not required to be covered. The supply of PPE is provided through a regional procurement process which can limit individual, specific or preferred choices of PPE. Brochures came with the new PPE describing its use and cleaning instructions.

23. CNM1 advocated on several occasions for the re-supply of the original N95 masks and was advised that according to policy N95 masks were not necessary and were being reserved for high risk areas where aerosol generating procedures would be used, and surgical masks were appropriate. An alternate brand of N95 mask was supplied and CNM1 showed the nursing staff how to put the new masks on and test the masks for air leaks. The nurses continued to use N95 masks on the ward and N95 masks were available at all times.
24. On 22 April a PPE audit programme was introduced in response to a recommendation from Canterbury DHB who was also managing an outbreak of COVID-19 in an ARC facility. Daily auditing in the ward showed practice was generally very good. Some inconsistencies were identified in the teaching of PPE, particularly the buddy system; changes were made to the auditing and teaching with the support of the nurse educators. The role of the buddy was formalised, supervising the donning and doffing of PPE was introduced with additional resources provided to facilitate this function.
25. When the three nurses became symptomatic they followed the recommended practice reporting their symptoms and being tested for COVID-19. They have remained away from work. Immediate steps were taken to address the risk to patients, staff and the community including: closure and deep cleaning of the affected ward; contact tracing and testing of all potential contacts; standing down of staff; reconfiguration of patient placement; symptom screening of staff on arrival at work; and introduction of screening for people entering and exiting the affected area.

## FINDINGS

26. The panel acknowledges that the situation faced by the DHB was exceptionally challenging. It was a situation it had not faced before or planned for. The situation arose from the unique, COVID-19 related need to support an ARC facility – providing up to 85 per cent of St Margaret’s staff, and having to make rapid decisions in a constantly changing environment.
27. Staff worked very hard to manage the rapidly evolving situation. The panel acknowledges the nursing staff in particular for the exemplary care they provided to the six patients; these staff volunteered to work in the COVID ward and should be commended. They were compassionate, professional and worked to ensure the patients were provided with the best care possible.

## Planning

28. Planning to manage COVID-19 patients was focused on large patient volumes needing ICU capacity and pathways were designed for this scenario. As the situation evolved with Alert level 4 lockdown, the large volumes did not occur. Sporadic COVID-19 cases presented to NSH and WTH and were well managed using the planned processes. The need to support an ARC facility was

unexpected, unprecedented, and challenging. It required the DHB to provide a lot of support and resources to the facility over more than two weeks, including IMT leaders, IMT clinical advisors, a charge nurse manager, registered nurses and health care assistants (up to 27 on one day), and additional nursing staff from WTH to swab residents. A lot of the senior manager and nursing staff support came from WTH, which made it particularly challenging for the hospital.

29. From the time of notification of the outbreak at the facility planning was focused on keeping the residents at the facility, there was no back-up plan by St Margaret's management nor by the DHB's IMT which was meeting daily, for how patients should be managed if it became unsafe to manage the patients in the facility. The safety concern was mainly due to the rapidly changing staff availability with ARC staff standing down due to contact with COVID patients.
30. As a result, the decision to transfer the residents had to be made quickly on a Friday, which is not ideal. The planned admission pathways to WTH and NSH were not followed for reasons that were explained to the panel (the residents were from West Auckland and would be nearer to their families to allow compassionate visiting; Waitematā DHB's geriatrician based at WTH would look after the patients on the ward -the geriatrician knew the residents and had been overseeing their care; the ward had been designated as an overflow ward for COVID patients, it was empty and was configured to cohort patients; and there was not a high need to use individual side rooms, as the residents did not need to be isolated from each other as all were COVID positive and none were unwell enough at the time to need aerosol generating procedures. At the time it was considered the residents were not acutely unwell and did not require acute hospital care; they needed to be transferred to WTH in order to address the evolving outbreak and shortage of staffing at St Margaret's). However, this rationale was not clear to staff; it was confusing and stressful for staff with rosters having to be made very quickly, pulling staff from different wards to work together for the first time. Not all IMT clinical leaders were involved in the decision making. In fact, the patients deteriorated quickly and required fully nursing care. Earlier back-up planning could have helped manage this situation. For example, the ward team could have been configured, become familiar with processes on the ward and practised scenarios.

## PPE Usability and Supply

31. There were a number of issues with the usability of the PPE that have been described, which increased the risk of viral transmission. There were also a number of changes made to the supply of the PPE from the regional provider, which made it challenging and stressful for staff having to learn ways to fit and use various brands of PPE. In a stressful environment, consistency of quality and supply of essential equipment is very important.
32. The panel commends CNM1 and the geriatrician for advocating for the nursing staff to have a consistent supply of high quality PPE. It should be noted that while CNM1 provided feedback in order to receive another supply of N95 1870 masks that staff had been fitted for, this was initially not supported as the ward was considered to be low risk. The CNM1's advocacy resulted in N95 masks continuing to be supplied in good quantities, and they were always available. These were the 1860 style and came in two sizes.

33. The high level of patient needs and acuity of care required resulted in the nursing staff having to change PPE multiple times during a shift. It is well recognised that donning and doffing PPE, particularly doffing, is high risk for viral transmission, and it is therefore important to try and minimise the number of times this occurs. This needs to be balanced with the need to ensure staff are not exposed for prolonged periods unnecessarily in enclosed rooms with confirmed COVID-19 patients.
34. The organisation's understanding of fit testing and fit checking N95 masks has matured as evidence and expertise in COVID has evolved.

## Staffing Levels and Rostering

35. There was general consensus among staff that the levels of nursing staff were reasonable. It was also noted that there was a good skill mix of nurses with acute medicine and elderly rehabilitative medicine experience. Given the high acuity and level of care required, more staff may have enabled there to be fewer PPE changes with nurses remaining in the room with the patients and staff undertaking tasks for them outside the patients' rooms.
36. The impact of staffing and managing the ARC facility while simultaneously standing up a COVID-ready ward, and deployment of WTH management staff to the IMT, contributed to the stress of the hospital's environment, which had not been contemplated prior to COVID-19.

## Information and Communication

37. The nursing and medical staff commended the training and education that was provided to them by the nurse educators and IPC team. They felt well prepared for using PPE and the processes that were established on the ward.
38. PPE training was provided to non-clinical staff. Cleaning staff commenced a programme in late March as part of COVID readiness. PPE training is now part of orientation for cleaners. Allied Health staff had adopted a buddy system to observe and correct PPE donning and doffing. However, a buddy system was not part of the formal PPE training and not universally practised across the clinical professions. A buddy system has now been recommended and included in the organisation's PPE training programme.
39. Information provided to staff about PPE and expected practice was not always consistent, was updated frequently and posted to the staff COVID site. This was stressful for staff and resulted in confusion about what to do. For example, nursing staff were told that they did not need to use N95 masks and N95 masks should only be used for aerosol generating procedures, while the COVID-19 policy states that N95 masks must be used if the patient has uncontrolled coughing. With the high viral load of unwell COVID patients coupled with their incontinence and full care needs, this area should have been considered a high risk area, automatically receiving N95 masks. Nurses on the ward always had access to, and wore, the appropriate PPE.

40. The panel acknowledges the challenges this pandemic presents with rapidly evolving evidence of recommended and best practice and insecurity of supply chains. Whenever possible, information provided to staff needs to be timely, clear, simple and consistent; and staff need to be listened to and responded to. This needs to be a constant, high priority for the DHB.

## RECOMMENDATIONS

41. The DHB has made a number of changes since becoming aware of the infection the three staff nurses. These changes are summarised in **Appendix Four**. In addition to these changes, the panel makes the following recommendations.

### Planning

42. Ensure a plan is in place to support ARC facilities during the COVID-19 pandemic. This is a national and regional issue and will need leadership and support from the Ministry of Health and the Northern Regions' DHBs.
43. Develop a plan for managing a cohort(s) of COVID-19 patients transferred from ARC facilities to WTH and NSH. The plan needs to ensure:
  - a. all relevant senior clinical advisors are included in advance planning and decision making
  - b. decisions to transfer allow staff time to prepare
  - c. wards /areas that will receive patients plan and prepare using simulation practise and team training
44. The DHB continues to support Coordinated Incident Management System (CIMS) training for a wide range of staff so that expertise is developed and widespread. This should include simulation training for a pandemic.
45. Review the plans to receive and place patients with confirmed COVID-19 at NSH and WTH to ensure that:
  - a. It is clear where and when patients should be placed, for example negative pressure rooms, side rooms, particular areas/wards
  - b. Staff in each area/ward are trained and prepared, have undergone simulation and team training/practice
  - c. Each area/ward is equipped and prepared to receive patients at any time
  - d. Where possible, staff can be rostered in accordance with the Northern Region Coordination Centre's guidance to reduce the risk of COVID-19 transfer for health care workers employed across multiple work environments.

### PPE

46. Consideration be given to PPE procurement and supply chains to ensure that:
  - a. PPE is available in a variety of sizes and styles to suit individual needs
  - b. PPE is prioritised for high risk areas
  - c. There is consistency of style of PPE equipment and clinical expert advice is sought about what PPE is used

47. Identify and implement ways to minimise donning and doffing PPE, including:
  - a. A two-way communication system in single and in multi-bed rooms, to enable staff in a COVID patient (s) room to be able to call and get someone outside the room to undertake tasks for them<sup>4</sup>
  - b. A tablet/iPad that remains in the patient(s) room so that staff can record eVital signs directly in the tablet/iPad
  - c. the possibility of suits (reduce skin exposure and reduce frequency of donning and doffing)
  - d. a resource to receive and answer calls from family and whānau
48. Ensure PPE training:
  - a. is provided to all relevant staff, clinical and non-clinical
  - b. includes on-the-job, face-to-face training in a practical, teach and learn way
49. Add a buddy system to PPE guidelines and checklists.
50. Information about fit checking and fit testing needs to be clear and readily available for staff. The Northern Region Health Coordination Centre's (NRHCC's) Clinical Technical Advisory Group (CTAG) has provided advice on the use and fitting of N95/P2 respirators ('masks'), and clarity about fit checking and fit testing.<sup>5</sup>

## Information and communication

51. Make communication and provision of information to staff that is timely, clear, and consistent, a priority.
52. Focus on multiple ways of providing staff information including notice boards in all areas, a resource to provide on-the-floor after hours communication, and a variety of digital formats that meets staff needs.
53. Ensure changes in information (policies/protocols/guides etc) is minimised as much as possible and managed carefully so that staff have time to take on board the information and adjust practice as required.
54. Develop feedback loops for staff so that staff can share their experience, are listened to, and are involved in decision-making.

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<sup>4</sup> The DHB's Leapfrog Team is currently developing and testing a two-way communication system using mobile phones and magnets for the phone to be placed on a wall for easy access.

<sup>5</sup> NHRCC CTAG Advice: use and fitting of N95/P2 respirators ('masks') as part of Personal Protective Equipment (PPE) in the context of COVID-19, 04 May 2020.

## Appendix 1

### Investigation Terms of Reference

## **COVID-19 Staff Infections Waitakere Hospital April 2020**

### **Major Incident Review - Terms of Reference 04 May 2020**

Three registered staff nurses (RNs) working at Waitakere Hospital (WTH) have tested positive for SARS-CoV-2 virus (COVID-19). All three RNs cared for COVID-19 positive patients.

Immediate steps have been taken to protect the staff and patients. Waitematā DHB's Infection, Prevention and Control Team and Occupational Health Team are working closely with the Auckland Regional Public Health Service (ARPHS) to undertake contact tracing, testing and follow up of staff, patients and contacts.

Waitematā District Health Board had an investigation underway after the first case was identified but is now extending the panel membership and updating the terms of reference. Changes have been put in place as a result of the positive cases, and further changes will be made as new information becomes available in the investigation rather than wait for the completion of the report.

#### **1. Purpose**

The purpose of the investigation is to:

- Understand the circumstances around how the three staff members may have become infected
- Review and assess relevant policies, protocols and processes in place at WTH to protect and keep staff and patients safe when caring for positive COVID-19 patients, including policies, protocols and processes relating to:
  1. Infection, Prevention and Control
  2. Personal Protective Equipment (PPE)
  3. Training
  4. Rostering and allocation of nursing staff
  5. Management of patients
- Identify any systems issues that come to light as part of the review process that may have contributed to the staff becoming infected with COVID-19
- Identify and make recommendations about improvements that could help prevent similar incidents from happening again
- Provide a report as a record of the investigation process

#### **2. Exclusions**

The panel is not investigating the potential origin or chain of transmission, as this is the role of ARPHS.

### **3. Process**

- An adverse events framework will be used to undertake the investigation
- The panel will interview relevant people as necessary
- The panel will provide staff on the affected ward the opportunity to express any concerns and ask any questions they would like answers to as part of the investigation
- The panel may consider other reports into the incidents and other information it considers relevant to inform its investigation

### **4. Timeframe**

A draft report will be completed by 8 May 2020.

### **5. Panel membership**

- Mark Shepherd, Director, Provider Healthcare Services Waitematā DHB - chair
- Dr Penny Andrew, Clinical Lead of Quality, and Director of the Institute for Innovation and Improvement, Waitematā DHB
- Geraldine Kirkwood, NZNO Representative and Manager of Outpatients Services, WTH, Waitematā DHB
- Sue Hayward Chief Nursing and Midwifery Officer, Waikato DHB

### **6. Panel Support**

- Angela Leech, Quality and Safety Lead, Waitematā DHB, to provide administration support
- Margaret Cain, NZNO Competency Advisor, to provide support to the NZNO representative
- Acting Director of Nursing, Waitematā DHB, to provide expert advice

### **7. Confidentiality**

The report will be confidential until released by Waitematā DHB.

## Appendix 2

### Statement of Sue Hayward

In the role of an independent member (not employed by Waitematā DHB) the following are some my observations.

The panel commenced the investigation from a neutral stance with the aim to understand how the three nurses were exposed to transmission of the Covid-19 virus, and what could be done to reduce further risk. The ToR were clear and adhered too, and all members were very clear about wanting to explore whatever was needed to be explored in order to better understand processes and if possible improve on these.

The investigation which followed the serious event process was inclusive and engaging with those key staff who were the decision makers and clinicians providing direct care. The panel gave time for staff to present their perspective and give opinions on what could be improved. This, combined with a comprehensive timeline, enabled constructive panel discussions and agreed outcomes.

During the investigation what was apparent was the leadership displayed, as nurses were pulled from other areas into the Covid-19 ward. The effective planning to ensure all nurses were competent to use full PPE, understood their roles and how to work in a Covid-19 positive ward is to be commended. The three nurses who did test positive had an excellent knowledge around infection prevention and described in detail the donning and doffing of PPE. They articulated well how they worked as an effective team, and considering they had not worked together prior to this event, this indicates a level of professionalism that needs to be acknowledged.

#### **Sue Hayward**

Chief Nursing & Midwifery Officer  
Waikato DHB

7 May 2020

## Appendix 3

### ARPHS Report from 11 May 2020



#### St Margaret's Private Hospital COVID-19 Outbreak: Source and Transmission among Cases in Waitakere Hospital 11 May 2020

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The purpose of this paper is to describe what is currently known about the source and transmission pathways of COVID-19 illness amongst people in Waitakere Hospital.

#### Timeline

The first case in the St Margaret's outbreak was notified on 4 April 2020. As of 11 May there have been 50 cases associated with the outbreak amongst staff of the facility, residents of the facility, Waitemata DHB staff and household contacts.

Some residents of St Margaret's were transferred for care at Waitakere and North Shore Hospitals on 17 April.

Cases of COVID-19 amongst staff at Waitakere Hospital subsequently occurred, with the date of onset for the first case being 24 April. As of 11 May there have been 11 cases in Waitakere Hospital, of whom 7 are staff (6 confirmed, 1 probable) and 4 are household contacts (2 confirmed and 2 probable). The most recent 2 cases amongst staff were reported on 10 May.

#### Investigation and Findings

Detailed scoping of cases, including investigation of the likely source of exposure, is carried out by ARPHS working closely with WDHB.

Often in outbreak investigations the source of exposure and pathways of transmission cannot be determined with certainty. Hypotheses for transmission are generated by combining epidemiological data (onset of illness and infectious period), history taking for possible exposures (staff rosters, contacts with known cases and other activities), and laboratory testing.

The results of investigations to date suggest that, for each of the seven cases, either or both of working shifts on the Overflow ward or close contact with an infectious colleague are the exposures of concern.

Noting that this outbreak investigation is on-going and based on the data available the most plausible hypotheses for exposure and transmission are:

- St Margaret's patients on the Overflow ward are considered to be the initial source of the virus, and
- cases most likely arose from a mixture of exposure in the Overflow ward or person-to-person spread.

## Appendix 4

### Changes Made

#### *Prior to notification of staff infections*

- PPE audit process daily audits using observational audit tool and teach and learn approach, for all ward staff

#### *Immediate actions on notification of infections:*

- Closure of the affected area to further admissions
- Standing down of staff for 14 days
- Swabbing of all potential contacts
- Contact tracing of close and casual contacts
- Isolation of close contacts
- Screening of people entering and exiting affected areas

#### *Further actions /changes:*

- Formal buddy system and inclusion of buddy system in PPE training
- Reinforcement of recommended IPC principles (Northern Region Clinical TAG lead)
  - meticulous use of all appropriate PPE
  - maintaining good hand hygiene
  - physical distancing within the workplace
  - daily self-monitoring for any potential symptoms by staff and not attending workplace if unwell.
- Temporary “bubble” system - aim of working to achieve Waitematā DHB wards with COVID-19 patients, or confirmed close contacts, are staffed exclusively by a dedicated pool of nurses who will not work subsequent shifts elsewhere.
- Publication of Northern Region Health Coordination Centre guidance: *Guidance to reduce the risk of COVID-19 transfer for health care workers employed across multiple work environments*
- Publication of the Northern Region Health Coordination Centre Clinical Advisory Group advice on PPE dated 04 May 2020: NHRCC CTAG Advice: use and fitting of N95/P2 respirators (‘masks’) as part of Personal Protective Equipment (PPE) in the context of COVID-19
- Voluntary COVID-19 testing to all DHB staff irrespective of symptoms/asymptomatic
- Psychology sessions for staff
- Employment assistance programme (also includes free psychology services), including on-site service at WTH
- PPE helpline (0800) and dedicated PPE email

Situation report – Friday 17 April 2020

CHT St Margaret’s COVID-19 outbreak (EpiSurv #: OB-20-108817-AK)

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	<ul style="list-style-type: none"> <li>○ staff member [REDACTED] = TBC</li> <li>• All other residents being managed in isolation following COVID swabbing</li> <li>• All admissions to hospital from St Margaret's (excluding secure dementia unit) to be considered close contacts.</li> <li>• List of NHIs of all residents in facility (10/04) has been supplied to North Shore Hospital (NSH)/Waitakere Hospital (WTH) to support future management in acute setting.</li> <li>• Directive for twice daily observations / symptom checking of all residents – facility stated that significant staffing resource required for this to be completed. Residents need to be checked daily for symptoms and have their temperature taken. The basis for this is the Health Quality &amp; Safety Commission (HQSC) guidance which isn't very specific but states: <i>Monitor outbreak progress through increased observation of residents for fever and/or acute respiratory illness</i></li> <li>• Agreement for up to 21 residents to be transferred to WTH to support the facility as a result of insufficient staff – 6 residents (COVID-19 positive) will be transferred today and possible transfer of more tomorrow.</li> </ul>			
COVID-19 testing	<ul style="list-style-type: none"> <li>- Decision to test symptomatic residents only as per advice from [REDACTED] (ARPHS) and [REDACTED] – facility to manage.</li> <li>- Facility has stated (11/04) no further swabs will be completed without a supply of full face visors. Supplied 11/04.</li> </ul>		<ul style="list-style-type: none"> <li>- Document re COVID-19 testing in ARC prepared by NRHCC provided to facility.</li> <li>- 10 x swab kits delivered to facility</li> </ul>	<ul style="list-style-type: none"> <li>- DHB [REDACTED] to confirm where process for staff testing</li> </ul>

	<ul style="list-style-type: none"> <li>- 15/04 - directive received by DHB incident management team (IMT) for all residents (excluding dementia unit) to be swabbed. DHB lab to process. EpiSurv outbreak # to be recorded on all swabs for easy identification. Completed</li> <li>- All staff will also need to be swabbed (80+) – to include Compass staff and DHB staff. Discussion re whether this should include other visitors to the facility such as delivery personnel. Need to confirm arrangements around where testing will occur – possibly local Community Based Assessment Centre (CBAC).</li> <li>- All swabs completed for residents on 15/04 and 16/04</li> </ul>		- 15/04 & 16/04 - all residents swabbed	
Staffing	<p>Current situation – 17 CHT staff and 1 DHB staff have been stood down (close contacts, confirmed or probable cases)</p> <ul style="list-style-type: none"> <li>- 16/04 staffing need remains critical need</li> <li>- Cleaner to clean isolation rooms has been confirmed until next Wed 22/04</li> <li>- 15/04 – update re Northern Region Health Coordination Centre (NRHCC) workforce team are currently vetting possible staff and should hopefully be available by Friday. [REDACTED] will be contact person.</li> <li>- Continuity is an issue and ideal that same staff return where possible</li> <li>- 16/04 -confirmed that DHB staff will look after all residents including those with confirmed COVID</li> <li>- Awaiting advice re whether asymptomatic</li> </ul>	On-going critical need for staffing support.	Staffing is being provided by DHB – HCAs, RNs and cleaner	<ul style="list-style-type: none"> <li>- [REDACTED] (ADON) and [REDACTED] continuing working with facility to support</li> <li>- F/U advice re whether asymptomatic staff who are close contacts are able to continue to work in PPE</li> <li>-</li> </ul>

	<p>staff who are close contacts are able to continue to work in PPE</p> <ul style="list-style-type: none"> <li>- Confirmation that ARPHS sought advice re standing [REDACTED] down and this was the advice received</li> <li>- [REDACTED] will replace [REDACTED] for the weekend 18/19 at St Margaret's</li> <li>- ARPHS are not confident all close contacts have been identified and plan to interview all staff about possible contacts with confirmed or probable cases. Intend to complete with the next two days. Any staff that need to be stood down will be communicated to [REDACTED] (over weekend), [REDACTED] and [REDACTED]</li> <li>- ARPHS will provide [REDACTED] (over weekend), [REDACTED] and [REDACTED] with a list of staff that are currently on 14 days isolation including when they are cleared to come back.</li> </ul>			
GP services	<ul style="list-style-type: none"> <li>- Facility [REDACTED] continues to provide regular GP services through virtual consults. He is not visiting the facility. There is another GP (from same practice) who is able to visit the facility if an on-site consultation is deemed necessary by [REDACTED]</li> <li>- CHT confirmed that with [REDACTED] being stood down that they are lacking clinical assessments skills required to work with off-site GP.</li> </ul>	<p>No current issues with provision of GP service.</p> <p>Additional clinical support required to support GP with [REDACTED] being stood down</p>	<p>[REDACTED] to provide Geriatrician review for unwell and COVID positive residents alongside facility GP</p>	<ul style="list-style-type: none"> <li>- CHT to approach GP about whether practice can offer any additional support</li> <li>DHB [REDACTED] to follow up with Planning, Funding and Outcomes (PFO) primary care team about situation</li> </ul>

<p>Infection Protection and Control (IPC)</p>	<ul style="list-style-type: none"> <li>- Facility reported infection prevention and control (IPC) precautions in place and all staff continue to receive regular training. 15/04 confirmed that this is done twice daily at staff meetings</li> <li>- ARPHS have discussed with facility and confirmed that systems in place and facility are following HQSC / Ministry of Health (MOH) guidance</li> <li>- DHB staff expressed concerns about the PPE at St Margaret’s. Managed. 13/04 <u>agreed all staff to wear gowns</u> (when PPE required) rather than aprons for the duration of the outbreak – to manage staff anxiety</li> <li>- ARPHS confirmed MOH guidance on cleaning is correct (bleach products not required)</li> <li>- Discussed waste management, laundry management and food services – facility confident appropriate measures in place to manage.</li> <li>- Confirmed on-going concerns with the safe doffing and disposal of PPE due to lack of rubbish bins.</li> <li>- Symptom checking of staff at start of shift is currently occurring and temperature checks will start when infra-red thermometers arrive</li> </ul>	<p>Nil requested</p>	<p>PFO Quality Nurse Leader is available to support provision of IPC training and support if required.</p>	<p>-</p>
<p>PPE supply</p>	<ul style="list-style-type: none"> <li>- PPE supplies have been delivered to facility.</li> <li>- Additional order has been made this weekend to ensure supply for next week.</li> <li>- Regular orders will continue to ensure sufficient supply – consider regular order until residents out of isolation.</li> <li>- 15/04 - confirmed that regular orders should</li> </ul>	<p>Additional PPE will continue to be required</p>	<p>PPE supplies continue to be delivered by DHB and logistics</p>	<p>█ to send additional requirements / order to █ for forwarding on</p>

	be dispatched from NRHCC logistics with DHB able to provide emergency supply if required.			
Equipment	<ul style="list-style-type: none"> <li>- Facility has identified additional equipment requirements that they are unable to source from their suppliers.</li> <li>- Volumes are based on dedicated equipment for each isolation room.</li> <li>- The facility is unsure about sharing medical equipment between residents in isolation and would value guidance on this. Currently sharing equipment and sanitising after each use.</li> <li>- Bins and skips remain a priority</li> <li>- Additional pulse oximeters to be supplied</li> </ul>	<p>25 profession standard tympanic thermometers – urgent need – unable to source from supplier, another facility or local chemist.</p> <p>25 sphygmomanometer</p> <p>25 stethoscopes (Litmun)</p> <p>25 trolleys for isolation equipment</p> <p>25 linen skips</p> <p>25 rubbish bins - foot pedals</p>	<ul style="list-style-type: none"> <li>- Gerontology Nurse Specialist (GNS) to provide DHB thermometer 08/04</li> <li>- Additional 6 x thermometers provided from WTH – 10/04</li> </ul>	<ul style="list-style-type: none"> <li>- DHB to provide guidance re dedicated equipment</li> <li>- DHB [REDACTED] to ensure urgent supply of pulse oximeters, bins, tables, trolleys etc.</li> </ul>
Communication	<p>DHB PFO contact: [REDACTED]</p> <p>ARPHS Contact: [REDACTED]</p> <p>weekend 18/19 – [REDACTED] – [REDACTED]</p> <p>Senior Nurse Liaison: [REDACTED]</p> <p>weekend 18/19 – [REDACTED]</p> <p>DHB Operations: [REDACTED]</p> <p>Staffing support lead: [REDACTED]</p> <ul style="list-style-type: none"> <li>- 14/04 - media statement released by CHT confirming cluster</li> <li>- Emergency admission to hospital will be managed with executive on call this weekend</li> <li>- [REDACTED] confirmed ARPHS have supplied fact sheets for staff. ARPHS still preparing fact sheet for residents / residents' families.</li> <li>- [REDACTED] confirmed comms approach for residents is to 1. For positives phone families 2. For negatives send standard letter by email</li> </ul>		Daily Zoom meeting at 12pm scheduled with facility, DHB and ARPHS	<ul style="list-style-type: none"> <li>- CHT to communicate with staff re requirement for testing</li> <li>- ARPHS to provide fact sheet for resident's families as soon as practicable</li> <li>- CHT - communicate with residents families who will be transferred today</li> <li>- CHT -communicate with residents families that are</li> </ul>

	<p>explaining that swabs had been taken</p> <ul style="list-style-type: none"><li>- Media statement – CHT requested for DHB to take the lead and any associated questions</li></ul>			<p>not moving about why residents are being moved i.e. difficulties with staffing</p> <ul style="list-style-type: none"><li>- [REDACTED] –</li></ul> <p>organise media statement</p>
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Situation report – Saturday 18 April 2020

CHT St Margaret’s COVID-19 outbreak (EpiSurv #: OB-20-108817-AK)

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█	Confirmed	07/04/20	In WTH																																																								
█	Confirmed	12/04/20	In WTH																																																								
█	Confirmed	14/04/20	Palliative																																																								
█	Confirmed	16/04/20	In WTH																																																								
█	Confirmed	16/04/20	In WTH																																																								
█	Confirmed	16/04/20	In WTH																																																								

	<ul style="list-style-type: none"> <li>o staff member [REDACTED] = TBC</li> <li>- All other residents being managed in isolation following COVID swabbing</li> <li>- All admissions to hospital from St Margaret's (excluding secure dementia unit) to be considered close contacts.</li> <li>- List of NHIs of all residents in facility (10/04) has been supplied to North Shore Hospital (NSH)/Waitakere Hospital (WTH) to support future management in acute setting.</li> <li>- Directive for twice daily temp / symptom checking of all residents – facility stated that significant staffing resource required for this to be completed. The basis for this is the Health Quality &amp; Safety Commission (HQSC) guidance which isn't very specific but states: <i>Monitor outbreak progress through increased observation of residents for fever and/or acute respiratory illness</i></li> <li>- Agreement for up to 21 residents to be transferred to WTH</li> <li>- 17/04 – 6 residents transferred to WTH (Covid-19 positive)</li> <li>- 18/04 – 9 residents transferred to NSH</li> <li>- 18/04 – <b>47 residents remain at St Margaret's</b> (plus 19 dementia unit)</li> </ul>			
COVID-19 testing	<ul style="list-style-type: none"> <li>- Decision to test symptomatic residents only as per advice from [REDACTED] Auckland Regional Public Health Service (ARPHS) and [REDACTED] – facility to manage</li> <li>- Facility has stated (11/04) no further swabs will be completed without a supply of full face visors. Supplied 11/04</li> </ul>		<ul style="list-style-type: none"> <li>- Document re COVID-19 testing in ARC prepared by NRHCC provided to facility.</li> <li>- 10 x swab kits delivered to facility</li> <li>- 15/04 &amp; 16/04 - all</li> </ul>	<ul style="list-style-type: none"> <li>- DHB [REDACTED] to follow up on information to CBAC (and Healthline) re tested staff continuing to work</li> </ul>

	<ul style="list-style-type: none"> <li>- 15/04 - directive received by District Health Board (DHB) incident management team (IMT) for all residents (excluding dementia unit) to be swabbed. DHB lab to process. EpiSurv outbreak # to be recorded on all swabs for easy identification. Completed</li> <li>- All staff to be swabbed (80+) – including compass staff and DHB staff. To occur at Community Based Assessment Centres (CBAC).</li> <li>- All swabs completed for residents on 15/04 and 16/04</li> <li>- Staff reported that they had been advised by CBAC not to come to work. This is not correct advice. ██████ to follow up to ensure correct message provided to CBACs</li> <li>- Communication error re Te Atatu Peninsula CBAS open today – some staff waiting. Confirmed Lincoln Rd and Westgate are open.</li> <li>- ██████ reported after the meeting that Healthline may be giving information about staff not going to work following testing</li> </ul>		residents swabbed	unless symptomatic
Staffing	<p>Current situation – (close contacts, confirmed or probable cases)</p> <ul style="list-style-type: none"> <li>- 18/04 staffing need remains critical need</li> <li>- Cleaner to clean isolation rooms has been confirmed until next Wed 22/04</li> <li>- 15/04 – update re Northern Region Health Coordination Centre (NRHCC) workforce team are currently vetting possible staff and should hopefully be available by Friday. ██████ will be the contact person</li> <li>- Continuity is an issue and ideal that same staff</li> </ul>	On-going critical need for staffing support.	Staffing is being provided by DHB – Health Care Assistants (HCAs), Registered Nurses (RNs) and cleaner	<ul style="list-style-type: none"> <li>- ██████ Acting Director of Nursing (ADON) and ██████ continuing working with facility to support</li> <li>- ARPHS to send excel sheet noting status of all staff and date for</li> </ul>

	<p>return where possible</p> <ul style="list-style-type: none"> <li>- 16/04 -confirmed that DHB staff will look after all residents including those with confirmed COVID-19</li> <li>- Awaiting advice re whether asymptomatic staff who are close contacts are able to continue to work in personal protective equipment (PPE)</li> <li>- ██████████ will replace ██████████ for the weekend 18/19 at St Margaret’s</li> <li>- ARPHS are not confident all close contacts have been identified and plan to interview all staff about possible contacts with confirmed or probable cases. Intend to complete by 20/04. Any staff that need to be stood down will be communicated to ██████████ (over weekend), ██████████ and ██████████</li> <li>- ARPHS will provide ██████████ (over weekend), ██████████ and ██████████ with a list of staff that are currently on 14 days isolation including when they are cleared to come back. (ARPHS is extracting this information from their system)</li> </ul>			<p>isolation</p> <ul style="list-style-type: none"> <li>- ██████████ to discuss with ██████████ and ██████████ and determine whether appropriate staff numbers can be sourced</li> </ul>
GP services	<ul style="list-style-type: none"> <li>- Facility GP ██████████ continues to provide regular GP services through virtual consults. He is not visiting the facility. There is another GP (from same practice) who is able to visit the facility if an onsite consultation is deemed necessary by ██████████</li> <li>- CHT confirmed that with ██████████ being stood down that they are lacking clinical assessments skills required to work with offsite GP</li> </ul>	<p>No current issues with provision of GP service.</p> <p>Additional clinical support required to support GP with ██████████ being stood down</p>	<p>██████████ to provide Geriatrician review for unwell and COVID positive residents alongside facility GP</p>	<ul style="list-style-type: none"> <li>- CHT to approach GP about whether practice can offer any additional support</li> <li>- DHB ██████████ to follow up with Planning, Funding and Outcomes (PFO) primary care</li> </ul>

				team about situation
Infection Protection and Control (IPC)	<ul style="list-style-type: none"> <li>- Facility reported infection prevention and control (IPC) precautions in place and all staff continue to receive regular training. 15/04 confirmed that this is done twice daily at staff meetings</li> <li>- ARPHS have discussed with facility and confirmed that systems in place and facility are following HQSC / Ministry of Health (MOH) guidance</li> <li>- DHB staff expressed concerns about the PPE at St Margaret's. Managed. 13/04 <u>agreed all staff to wear gowns</u> (when PPE required) rather than aprons for the duration of the outbreak – to manage staff anxiety</li> <li>- ARPHS confirmed MOH guidance on cleaning is correct (bleach products not required)</li> <li>- Discussed waste management, laundry management and food services – facility confident appropriate measures in place to manage.</li> <li>- Confirmed on-going concerns with the safe doffing and disposal of PPE due to lack of rubbish bins.</li> <li>- Symptom checking of staff at start of shift is currently occurring and temperature checks will start when infra-red thermometers arrive</li> <li>- 18/04 – confirmed that no staff have worked between the dementia unit and hospital unit since the beginning of the outbreak</li> </ul>	Nil requested	PFO Quality Nurse Leader is available to support provision of IPC training and support if required	- CHT to ensure that symptom checking of all staff at the beginning of each shift occurs (including those in the dementia unit)
PPE supply	<ul style="list-style-type: none"> <li>- PPE supplies have been delivered to facility</li> <li>- Additional order has been made this weekend</li> </ul>	Additional PPE will continue to be required	PPE supplies continue to be delivered by DHB and	

	<p>to ensure supply for next week.</p> <ul style="list-style-type: none"> <li>- Regular orders will continue to ensure sufficient supply – consider regular order until residents out of isolation.</li> <li>- 15/04 - confirmed that regular orders should be dispatched from NRHCC logistics with DHB able to provide emergency supply if required.</li> </ul>		<p>logistics 17/04 – order placed</p>	
Equipment	<ul style="list-style-type: none"> <li>- Facility has identified additional equipment requirements that they are unable to source from their suppliers.</li> <li>- Volumes are based on dedicated equipment for each isolation room.</li> <li>- The facility is unsure about sharing medical equipment between residents in isolation and would value guidance on this. Currently sharing equipment and sanitising after each use.</li> </ul>	<p>25 profession standard tympanic thermometers – urgent need – unable to source from supplier, another facility or local chemist. 25 sphygmomanometer 25 stethoscopes (Litmun) 25 trolleys for isolation equipment 25 linen skips 25 rubbish bins - foot pedals</p>	<ul style="list-style-type: none"> <li>- Gerontology Nurse Specialist (GNS) to provide DHB thermometer 08/04</li> <li>- Additional 6 x thermometers provided from WTH – 10/04</li> <li>- <u>On loan from WTH</u> <ul style="list-style-type: none"> <li>o 2 Masimo pulse oximeters</li> <li>o 6 Nightingale trolleys</li> </ul> </li> <li>- Linen skips and rubbish bins ordered by [REDACTED]</li> </ul>	<ul style="list-style-type: none"> <li>- DHB to provide guidance re dedicated equipment</li> <li>- [REDACTED] to calculate PPE supplied by hospital</li> </ul>
Communication	<p>DHB PFO contact: [REDACTED]          ARPHS Contact: [REDACTED]          weekend 18/19 – [REDACTED] – [REDACTED]          Senior Nurse Liaison: [REDACTED]          weekend 18/19 – [REDACTED]          DHB Operations: [REDACTED]          Staffing support lead: [REDACTED]</p> <ul style="list-style-type: none"> <li>- 14/04 - media statement released by CHT confirming cluster</li> </ul>		<p>Daily Zoom meeting at 12pm scheduled with facility, DHB and ARPHS</p>	<ul style="list-style-type: none"> <li>- CHT to communicate with staff informing they can continue to work unless advised by ARPHS</li> <li>- ARPHS to provide fact sheet for residents’ families as soon as</li> </ul>

	<ul style="list-style-type: none"> <li>- Emergency admission to hospital will be managed with [REDACTED] (over weekend)</li> <li>- [REDACTED] confirmed ARPHS have supplied fact sheets for staff. ARPHS still preparing fact sheet for residents / resident's families.</li> <li>- CHT confirmed all resident families are aware of swabbing</li> <li>- CHT confirmed comms for moving residents             <ol style="list-style-type: none"> <li>1. Phoned all families of all residents to NSH / WTH</li> <li>2. Emailed all other resident families explaining</li> </ol> </li> <li>- Media statement – media statement released yesterday and today</li> <li>- 18/04 – CHT confirmed inconsistent messaging being supplied to staff being tested about whether they can continue to work</li> <li>- ARPHS requested that any staff that report symptoms consistent with COVID-19 are reported to the facility</li> </ul>			<p>practicable</p> <ul style="list-style-type: none"> <li>- CHT to let ARPHS know if any staff report symptoms that may be consistent with COVID-19</li> </ul>
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## Personal protective equipment (PPE)

### PPE tips

#### Key messages from COVID-19 clinical lead Dr Willem Landman

- Using and wearing your PPE safely (video)
- Overuse of PPE (video)
- Washing your uniform (video)

#### Questions about PPE?

Do you have questions or concerns about PPE?  
 Contact our PPE group:

**0800 PPE HELP** (0800 773 4357)  
[Covid19.PPE@waitematah.govt.nz](mailto:Covid19.PPE@waitematah.govt.nz)

### PPE donning and doffing



WDHB PPE guide - when, what, why and how (video)

Guidance on appropriate PPE use based on patient's COVID-19 status



Theatre donning and doffing PPE (video)

Correct donning and doffing procedures of PPE in theatres

### Change to PPE doffing

There has been one important change to the PPE doffing (removal) process to align with new Ministry of Health guidance for essential workers. The key change is that:

- gowns should be removed before eyewear
- eyewear should be doffed and cleaned per process or, if identified as disposable should be discarded



Everything you have learnt about the process of donning and doffing PPE is still important and relevant, including standard precautions, hand hygiene and the more specific contact and droplet precautions.

Our previous process is still correct and safe - both processes allow you to safely and confidently care for patients.

PPE Educators are available to refresh and update your training and to answer any questions you may have.

### PPE stock changes



A new blue isolation gown has been approved by the PPE group and IPC team. Please note that these blue gowns:

- have a tie at the neck instead of velcro - it may be helpful to have a buddy help you to untie the neck fastening
- are also slightly smaller than the existing yellow gowns

The yellow gowns are still available but only for limited areas.

# PPE guidance

The information below provides guidance on when to use PPE, and the correct procedures for donning and doffing PPE. Some of these posters will be around the hospitals, but please download and print the resources as required.

+ [When should I wear PPE?](#)

+ [Which mask should I wear as part of my PPE?](#)

+ [What counts as an aerosol generating procedure?](#)

## Waitematā DHB core PPE documents

### PPE instructions

- + [Steps for putting on and taking off PPE safely \(poster\)](#)
- + [PPE according to healthcare activities \(poster\)](#)
- + [MOH guidelines for PPE use in healthcare \(poster\)](#)
- + [WDHB PPE guide - when, what, why and how \(video\)](#)
- + [Theatre donning and doffing PPE \(video\)](#)

### PPE in theatre

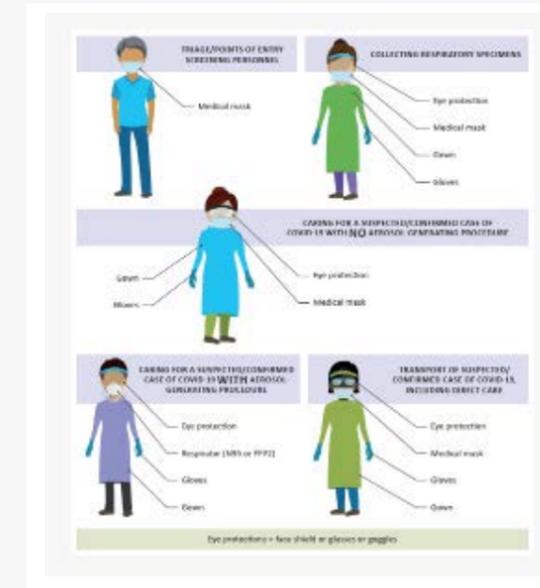
- + [PPE guide for surgical and procedural specialties](#)
- + [Checklist for removing PPE in the scrub bay \(poster\)](#)
- + [Donning PPE Theatres – all staff \(poster\)](#)
- + [Removal of PPE in Theatre – non-scrub staff \(poster\)](#)
- + [Removal of scrub PPE in Theatre \(poster\)](#)

### Cleaning and disinfecting PPE

- + [HRIT PAPR - cleaning / turnover guideline](#)
- + [Reusable respirator - cleaning and disinfecting](#)
- + [Cleaning and disinfection of reusable eye protection \(poster\)](#)
- + [Cleaning and disinfection of Safeview Eyewear with replaceable lenses \(poster\)](#)

### General guidelines

- + [COVID-19 Management - Clinical Guideline](#)
- + [PPE guidance for Waitematā DHB](#)



## Resources for PPE

### Instructional videos + posters



N95 FFP2 Duckbill Mask (poster)



Hand rubbing with sanitiser (video)



N95 3M 1870 Mask (video)



Hand washing with soap (video)



N95 3m 1860 Mask (video)

### Posters

- 3M mask fitting poster
- General hand hygiene reminder poster 1 (HQSC) - available in multiple languages
- General hand hygiene reminder poster 2 (HQSC) - available in multiple languages
- How to hand wash poster (HQSC)
- How to use hand sanitiser poster (HQSC)
- The 5 moments for hand hygiene poster (HQSC)

### Other healthcare resources

- PPE for essential workers (Ministry of Health)
- PPE guidance (Unite Against COVID-19)
- COVID-19 Resources for health professionals (ARPHS)

## Protecting yourself as a healthcare professional

In addition to wearing PPE, there are plenty of ways we can help to protect ourselves, our colleagues, our patients, and our 'bubbles' from COVID-19.

A few of the key steps we can take are:

- 1. Standard Precautions:**  
For all patients we should be vigilant with hand hygiene, observe cough etiquette, and practice physical distancing with our patients and each other.
- 2. Give each other some space:**  
Physical distancing where ever possible is helpful in reducing the transmission of covid-19. Within your departments consider how to space the chairs during meetings, stand 2 metres apart where ever possible, and in the cafeteria watch your distance between each other while waiting in the lunch line or eating your meals. Considerations for physical distancing in the hospital can be found below.
- 3. Stay home if you are sick:**  
It is key that we take the time that we need to rest and recover, while simultaneously protecting our colleagues and patients from infections.

### Creating physical distance

Physical distancing means remaining 2 metres away from other people, or if you are closer than 2 metres, being there for less than 15 minutes. Physical distancing is important to help protect you and others from COVID-19, which spreads via droplets from coughing and sneezing. Staying 2 metres away from others is an effective measure.

We still need to ensure effective transfer of clinical information and we still need to support each other and work together.

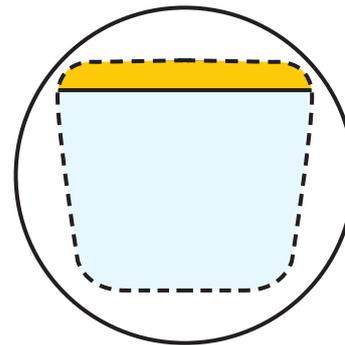
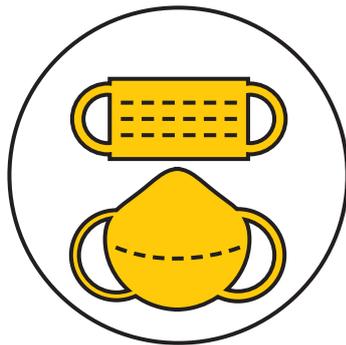
- + Working clinically - in tea rooms, on ward rounds etc
- + Providing clinical care
- + Adjusting work patterns to maintain essential services

# Steps to put on PPE safely

1.



2.



3.



# Steps to **remove** PPE safely (ANTEROOM)

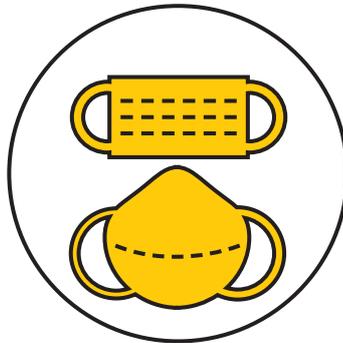
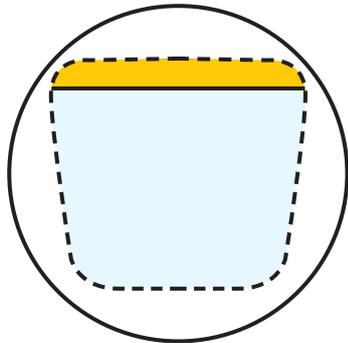
1.



2.



3.



4.



# Steps to **remove** PPE safely (NO ANTEROOM)

1.

In the patient room



2.

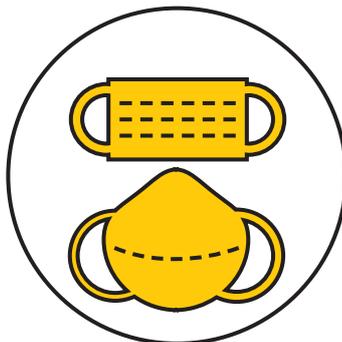
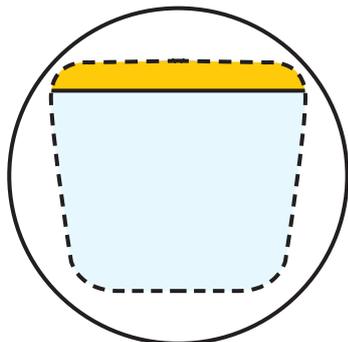


3.

Outside the patient room



4.



## Personal Protective Equipment (PPE) requirement for staff caring for COVID-19 patients in hospital

These recommendations are for all hospital personnel who enter a clinical area with suspected, probable or confirmed COVID-19 patients. Refer also to local DHB guidance. Refer to alert level 2: *Health and Disability Sector Risk Assessment for interactions with people of unknown COVID 19 status to determine need for Personal Protective Equipment (PPE)*.

Standard precautions including the 5 moments for hand hygiene\* apply for all patients with an acute respiratory infection.

Transmission-based precautions are required for all suspected, probable or confirmed COVID-19—Contact and droplet precautions.

### Contact and airborne procedures for aerosol generating procedures<sup>‡</sup>

**Follow donning and doffing procedure for PPE as recommended by your Infection Prevention and Control Team.**  
**Dispose of PPE in a biohazard waste bag.**

Before entering patient rooms	Single room	Cohorted room (bay of two or more people)
 <b>Always perform hand hygiene*.</b> ABHR or soap and water	✓ Hand hygiene as per 5 moments for hand hygiene	✓ Hand hygiene as per 5 moments for hand hygiene
 <b>Plastic apron for non-patient contact cares</b>	✓	✓
 <b>Don a long sleeve fluid resistant gown</b>	✓ For direct patient contact cares, single use	✓ For direct patient contact cares, single use
 <b>Use a Surgical Mask</b>	✓ For all patient interactions	✓ Keep mask on until mask becomes damp. Change as per PPE doffing guidance
 <b>For Aerosol Generating Procedures</b> <b>N95/P2<sup>‡</sup> Mask</b>	✓ Wear N95 mask <sup>‡</sup> for Aerosol generating procedures (AGPs) <b>only</b>	✗ AGPs should not be performed in cohort bay
 <b>Wear eye protection<sup>†</sup></b>	✓	✓
 <b>Don non-sterile Gloves</b>	✓ Single patient use	✓ Single patient use

Please refer to guidance on donning and doffing of PPE and Ministry information on COVID-19. [www.health.govt.nz/ppe-health](http://www.health.govt.nz/ppe-health)

\* Perform hand hygiene according to the WHO 5 moments for hand hygiene; [www.handhygiene.org.nz](http://www.handhygiene.org.nz)

‡ P2/N95 respirator must comply with AS/NZS 1716:2012 respiratory protective devices.

^ The following procedures are currently considered to be potentially infectious AGPs for COVID-19: intubation, extubation and related procedures, for example manual ventilation and open suctioning of the respiratory tract (including the upper respiratory tract), tracheotomy or tracheostomy procedures (insertion or open suctioning or removal), bronchoscopy and upper ENT airway procedures that involve suctioning, upper gastro-intestinal endoscopy where there is open suctioning of the upper respiratory tract, surgery and post mortem procedures involving high-speed devices, some dental procedures (for example, high-speed drilling), non-invasive ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP), High Frequency Oscillatory Ventilation (HFOV), induction of sputum (cough), high flow nasal oxygen (HFNO), and nebulisers.

† Face shield or goggles. Prescription glasses is not classed as eye protection. Remember to clean eye protection between uses.