

Personal protective equipment (PPE) needs for COVID-19

Date Thursday 26 March 2020: 12.30pm

Presenters Kathy Dempsey, NSW Health
Dr Laksmi Govindasamy, AH&MRC

*This activity has been developed in partnership with Aboriginal Health & Medical Research Council of NSW
and NSW Health*



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Acknowledgement of Country

We recognise the traditional custodians of the land
and sea on which we live and work.

We pay our respects to Elders past and present.



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Learning Outcomes

By the end of this webinar, participants will

- Know how to safely use PPE for COVID-19, including for different scenarios
- Know how to support testing for patients suspected to have COVID-19
- Know how to safely clean clinical spaces to help prevent COVID-19



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Presenters

- Ms Kathy Dempsey - NSW Health's Clinical Excellence Commission
- Dr Laksmi Govindasamy- Aboriginal Health & Medical Research Council of NSW



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What is COVID-19?

- A new virus from the Coronavirus family
- Coronaviruses can cause mild illness, like the common cold, or severe illness like SARS and MERS
- Name changes:
 - Initial name: 2019-nCoV
 - Virus: SARS-CoV-2
 - Illness: COVID-19



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WHO declared a global pandemic



<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>



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Situation in NSW

- As of 8pm Monday 23 March, there were 818 confirmed cases in NSW
- A total of 61,030 people have been tested and excluded.
- Initial cases were “imported” – in returned travelers
- Now seeing cases of local transmission – where COVID-19 has spread between people in Australia



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Symptoms

 FEVER

 COUGH

 DIFFICULTY BREATHING

 MUSCLE PAIN

 TIREDNESS



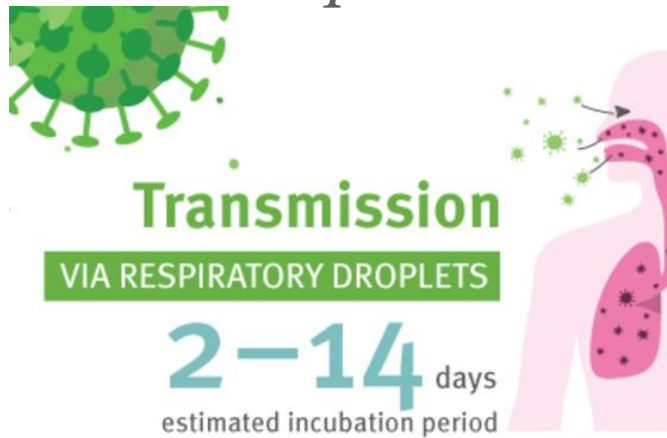
***Similar to flu
symptoms***

We cannot tell
them apart
without testing



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How is it spread?



Cough and Sneeze Safely

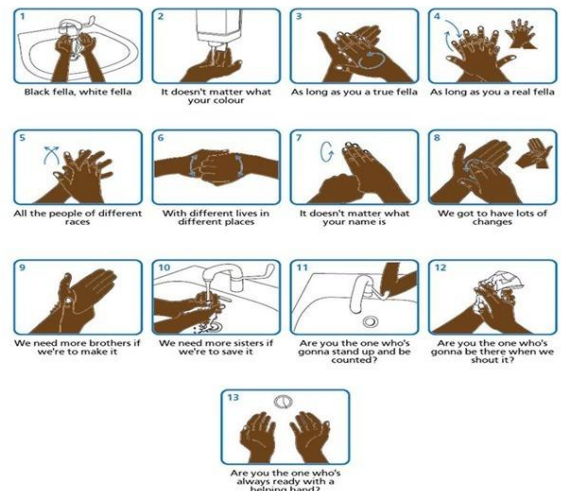
COVID-19



Preventing COVID-19

- Hand washing
- Cough and Sneeze Safely
- Social distancing
- Protecting each other
 - Stay home if you're sick
 - Keep the kids home if they're sick
 - Keep a safe distance

Wash your hands today... Keep germs away!
A song to help make sure you clean your hands for 20 seconds!



Identifying cases

- Regularly updated testing criteria – check NSW Health website
- Testing is free
- Limited supply of test kits
- ACCHSs should refer for testing if there is not capacity to test safely:
 - NSW Health facilities (local hospital; fever clinics)
 - Outpatient referral to pathology collection centres



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Ms Kathy Dempsey



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Infection Prevention and Control Principles

- **Environmental Cleaning** using a hospital grade and TGA approved disinfectant.
- **Waste Management** follows routine clinical and non-clinical waste processes
- **Linen Management** follows normal processes.
- **HAND HYGIENE** using ABHR and/or hand washing.
- **Respiratory** etiquette principles apply
- **PPE** Transmission based precautions



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For HCW contact with patients

- Standard precautions, including hand hygiene (5 Moments) for all patients with respiratory infections.
- Patients and staff should observe respiratory hygiene and safe cough
- Transmission-based precautions for patients with suspected or confirmed COVID-19:
 - **Contact** and **droplet** precautions for routine care of patients.
 - **Contact** and **airborne** precautions for aerosol generating procedures (AGPs).



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When patients with COVID-19 symptoms arrive at the clinic they need:

- To be identified by effective triage on arrival
- To put on a surgical mask
- Be placed in a single room that does not connect with other areas
- If transfer outside the room is essential, they should wear a surgical mask during transfer and cough safely



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Contact and droplet precautions:

- For most contacts between healthcare staff and patients the following PPE is safe and appropriate. It should be put on before entering the room:
 - long-sleeved gown
 - surgical mask
 - face shield or safety glasses
 - disposable nonsterile gloves when in contact with patient (hand hygiene before donning and after removing gloves)
- For patients requiring frequent attendance by medical and nursing staff, a P2/N95 respirator should be considered for prolonged or very close contact.



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Situations for contact and droplet precautions

Close contact with patients who are suspected of COVID-19:

- HCW assessment of patients who meet COVID-19 testing criteria
- When collecting a NPS sample from patients with mild-moderate illness



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When do you need to add airborne precautions?

If the patient has severe symptoms suggestive of pneumonia:

- Fever and breathing difficulty,
- Frequent, severe or productive coughing episodes

During aerosol generating procedures:

- Nebulised medications
- Intubation
- Non-invasive ventilation
- CPR



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Contact and airborne precautions

- PPE for contact and airborne procedures should be put on before entering patients room:
 - Long-sleeved gown
 - P2/N95 respirator (mask) – should be fit-checked with each use
 - face shield or safety glasses
 - disposable nonsterile gloves when in contact with patient (hand hygiene before donning and after removing gloves)
- P2/N95 respirators (mask) should be used only when required.



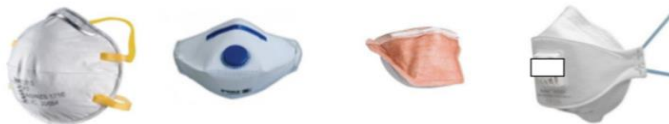
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P2/N95 Mask Fit Check

Unless used correctly, i.e. with fit-checking, a P2/N95 respirator (mask) is unlikely to protect against airborne pathogen spread.

An air-tight seal may be difficult to achieve for people with facial hair.

Fit checking with a range of P2/N95 respirators must occur to assess the most suitable one to achieve a protective seal. If a tight seal cannot be achieved, facial hair should be removed.



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The Importance of P2/N95 Mask Fit Check

The Importance of Fit.

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to respiratory contaminants. Disposable respirators are only effective when there is a good seal between the edges of the respirator and your face. The instant this seal is broken protection is compromised as contaminated air can leak in through any gaps.

These fitting instructions must be followed each time a 3M Cupped respirator is worn.

3M[®] Cupped Respirators



1. Be clean-shaven. Do not wear with beards or other facial hair that prevent a good seal to the face. (Do tie back long hair and remove jewellery so that it does not interfere with the seal to the face.)



1a. Pre-stretch entire length of each strap by pulling between two hands. (This requirement only applies to 3M 8710 and 8210 respirators.)



1b. Cup respirator in one hand, with fingertips positioned at nosepiece and straps hanging below the hand.



2. Place the respirator in one hand and against your face. Position the nosepiece under the chin with the nosepiece across the bridge of your nose.



3a. Pull the top strap resting it high over the crown of your head.



3b. Pull the bottom strap over your head then position it around your neck and below your ears. Straps must not be twisted.



4. Using both hands, mould nose clip to the shape of the nose bridge by pushing upwards while moving your fingertips down both sides of the nosepiece.



5. Cover front of the respirator with both hands taking a Face Fit Check - every time before entering the hazardous area.



The respirator is correctly worn as shown here.

Environmental Cleaning for COVID-19

- Recommendation for 2019-nCoV is **cleaning and disinfection**
- Using a Detergent is recommended for routine cleaning
 - A detergent is a surfactant that facilitates the removal of dirt and organic matter.
 - Most hard surfaces can be adequately cleaned with warm water and a neutral detergent as per the manufacturer's instructions.
 - Allowing the cleaned surfaces to dry is important
 - Routine cleaning of floors with detergent and water is recommended

Environmental Cleaning for COVID-19

- Using a Disinfectant
 - A disinfectant is a chemical agent that rapidly kills or inactivates most infectious agents.
 - Disinfectants are not to be used as general cleaning agents, unless combined with a detergent as a combination cleaning agent
 - Disinfection should always be undertaken following, and in addition to, detergent cleaning



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Environmental Cleaning After an AGP

- The room should be left vacant for at least 30 minutes after specimen collection (cleaning can be performed during this time by a person wearing PPE).
- The room surfaces should be wiped clean with disinfectant wipes by a person wearing gloves, gown and surgical mask.



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How should this work in practice?

A patient journey to their AMS



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A patient's journey

Grannie Ellen feels she is coming down with something.

Last night, she felt hot and sweaty when she was trying to sleep and this morning she's got a bit of dry cough. She's worried about her asthma so she decides to go for a check up.

Her granddaughter Eliza, who's feeling well, takes her to the AMS.



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Aboriginal Medical Service

COVID-19

Welcome! We want to give you the best and right level of medical care you need.

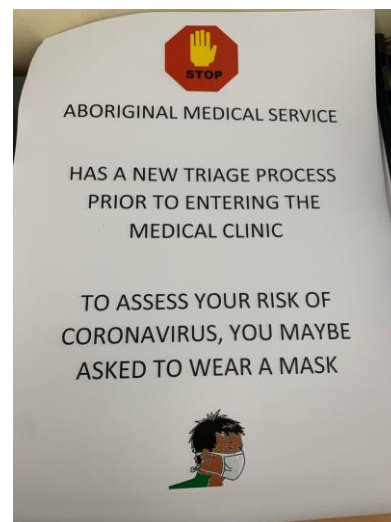
We have a **new triage process** before entering the medical clinic.



To assess your risk of COVID-19, you may be asked to **wear a mask**.



In the triage area



1. *Clean hands*
2. *Surgical mask*
3. *Clean Hands*



In the waiting area...

Eliza waits in the general waiting area, where chairs are wide apart.

Grannie Ellen is led to the special area for patients with respiratory symptoms.



Isolation Room

This is a room that is separate from the main waiting room.

Patients are prioritized to be seen by the doctor to keep the time in the room as short as possible.



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What does the GP seeing Ellen need to do beforehand?



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What does the GP seeing Ellen need to do beforehand?

Hand Washing

Contact and Droplet

Precautions:

- long-sleeved gown
- surgical mask or P2 mask, depending on severity of symptoms
- face shield or goggles
- disposable nonsterile gloves



GP Assessment

GP reviews Ellen in the dedicated treatment room for patients with respiratory symptoms.

GP notes that Ellen's symptoms are mild. She has no shortness of breath and or severe fits of coughing. Her temperature is now normal.

GP collects a sample to test for a flu and COVID-19.

Management Plan for Ellen

GP provides oseltamivir to manage flu because Ellen has risk factors for more severe flu and it works best when given early.

GP plans to call Ellen with results from the test and provides advice on:

- hand washing
- safe coughing
- keeping some distance from family at home
- staying home from community events



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What needs to happen after Ellen leaves?



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What needs to happen after Ellen leaves?

- **Cleaning and disinfection** of the clinical space
- Routine cleaning and disinfection of the waiting area
- GP should safely remove PPE and wash hands



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*Always,
Always,
Always,*

Wash your hands



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Useful resources

- NSW Health - <https://www.health.nsw.gov.au/Infectious/diseases/Pages/coronavirus-professionals.aspx>
- Infection Control Resources - <http://cec.health.nsw.gov.au/keep-patients-safe/infection-prevention-and-control/Coronavirus-COVID-19>
- National Guidelines - <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>



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Any questions....

Thank you

- The Team at Redfern AMS
- Kylie Taylor and Kristy Crooks from Hunter New England Local Health District



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