



COVID-19

Guidance for Professional Health Workers
in Primary Health Care Facilities in Ethiopia



Updated April, 2020

**Updated April Month for use in Primary
Health Care Facilities Ethiopia.**
Note that COVID-19 guidance is evolving.

Screen all patients for COVID-19 symptoms

Screen all patients for acute respiratory symptoms at a triage station before facility entrance

- Ensure triage staff wear a medical mask and keep at least 2m distance from patients.
- Have soap and water handwashing stations or alcohol-based hand rub available for all patients entering the facility.
- Ensure facility has separate streams/patient flows for patients who are suspected of having COVID-19 and those who are not.

Ask each patient if in the last 14 days, s/he:

- Has been in close contact¹ with a confirmed (tested positive) or probable case² of COVID-19?
- Does the patient have travel history to COVID 19 affected country?
- Worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital associated COVID 19 infections has been reported.

Yes to either

In the last 14 days, has patient had new onset of fever or history of fever and cough³ or shortness of breath?

Yes

Consider patient a **suspected COVID-19 case**

- Give patient a medical mask to wear.
- Does patient have difficulty breathing?

Yes

Send patient to separate area identified for emergency care of COVID-19 patients for urgent attention → 3.

No

- Send to separate waiting area for further assessment for COVID-19.
 - Ensure patients sit at least 2m apart.
 - Advise on cough and hand hygiene.
- Continue to assess and manage the patient with suspected COVID-19 → 3.

No

Manage as possible contact

- Allow patient to attend normal waiting area. Ask patients to sit at least 2m apart if possible.

- Explain that s/he is a COVID-19 contact and will need to self-isolate (quarantine) for 14 days from the date of last contact with the known case. Explain how to self-isolate → 4 and give information leaflet.
- Explain that if s/he develops symptoms, s/he should phone the emergency response team through ocal COVID-19 hotline number(8335)to arrange testing for COVID-19.

- Allow patient to attend normal waiting area.
- Ask patients to sit at least 2m apart if possible.
- Continue to assess and manage the patient using available local protocols.
- Continue to keep patients separate from suspected COVID-19 case areas.

¹Close contact includes any of: 1) Face-to-face (within 1 metre) contact with probable/confirmed COVID-19 case for more than 15 minutes. 2) direct physical contact with probable/confirmed COVID-19 case. 3) Direct care for patient with probable/confirmed COVID-19 without using proper personal protective equipment. 4) Other situations as indicated by local risk assessments. (adapt to local policy or delete #4). ²Suspect case of COVID-19 in which COVID-19 testing was inconclusive or could not be performed. ³If known with chronic cough, ask if cough has significantly worsened in the last 14 days.

Assess and manage the patient with suspected COVID-19

- When working in close contact with a suspected COVID-19 case, ensure you are wearing personal protective equipment (medical mask, visor or goggles, gloves, gown) → 8.
- After each patient, clean and disinfect all equipment used. Change gloves and wash hands between each patient.

Give urgent attention to the patient with cough or difficulty breathing and any of:

- Difficulty breathing
- Breathless at rest or while talking
- Respiratory rate > 30
- BP < 90/60
- Pulse rate ≥ 100
- Confused or agitated
- Unable to walk without help
- Sudden breathlessness, more resonant/decreased breath sounds/pain on one side, deviated trachea, BP < 90/60: **tension pneumothorax** likely
- Coughs ≥ 1 tablespoon fresh blood
- If difficulty breathing with pain/swelling reported in one calf, **pulmonary embolus** likely

Manage and refer urgently:

- Check oxygen saturations if available. If ≤ 93%, give oxygen. If saturation unavailable, give oxygen if difficulty breathing, breathless at rest/while talking or respiratory rate > 30.
 - Give oxygen: ideally use nasal cannula, start 5L/min. If only facemask available, give 6-10L/min. Aim for oxygen saturations > 94%.
 - If patient remains distressed, give facemask oxygen with reservoir bag (non-rebreather) at 10-15L/min.
- If BP < 90/60, give slowly **sodium chloride 0.9%** 250mL IV over 30 minutes, repeat until systolic BP ≥ 90. Continue 1L 6 hourly. Stop if breathing worsens.
- Give **ceftriaxone** 1g IV/IM and **amoxicillin** 1g orally to treat for possible **severe bacterial pneumonia**.

If known asthma/COPD and wheeze:

- Give inhaled **salbutamol** via spacer² 400-800mcg (4-8 puffs) every 20 minutes.
 - Give single dose **prednisolone** 40mg orally. If unable to take oral medication, give single dose **hydrocortisone** 100mg IM/slow IV.
 - If poor response to salbutamol, add inhaled **ipratropium bromide** via spacer 80mcg (4 puffs), every 20 minutes (or more often if needed).

If known diabetes and rapid deep breathing with glucose > 11

- Give **sodium chloride 0.9%** 1L IV over 2 hours then 1L 4 hourly IV. If possible, discuss IV fluids with referral centre.

If known heart problem

If difficulty breathing worse on lying flat and leg swelling: treat for **heart failure**.

- Sit patient up.
- If systolic BP > 90: give **furosemide** 40mg slowly IV. If no response after 30 minutes, give 80mg IV; if still no better after 20 minutes, give a further 40mg IV.
- If systolic BP > 90: give sublingual **isosorbide dinitrate** 5mg even if there is no chest pain. Repeat 4 hourly.

If tension pneumothorax likely

- Insert large bore cannula above 3rd rib in midclavicular line.
- Arrange urgent chest tube.

- If unsure, consult a specialist or contact local COVID-19 hotline.
- Notify the ambulance services and referral centre that the patient may have COVID-19.
- Clean and disinfect after patient has been referred → 7.

If patient not needing urgent attention, continue to assess and manage → 4.

¹Other causes may include influenza, TB, bacterial pneumonia, Pneumocystis pneumonia (PCP or PJP) if immunocompromised. ²Nebuliser use is discouraged as it is considered an aerosol-generating procedure.

Coronavirus disease (COVID-19): Practice safely

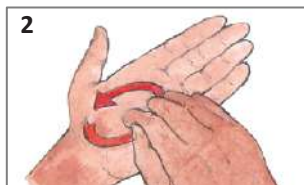
Keep yourself, your colleagues and your family safe from COVID-19 by practising safely using these steps:

1. Practise good hand hygiene

- Clean your hands frequently throughout the day. Also remember the 5 moments for hand hygiene:
 1. Before touching a patient
 2. After touching a patient
 3. After touching patient surroundings
 4. After exposure to body fluid
 5. Before doing a procedure
- Use alcohol-based hand rub (for at least 20 seconds) or soap and water (for at least 40 seconds) to clean hands. If hands visibly soiled, ensure you use soap and water.
- Follow these steps to clean your hands:
 - If using hand rub, apply palmful to cupped hand. If using soap and water, roll up sleeves, rinse hands in clean water and apply soap to palm.
 - Clean your hands using steps 1- 6 below.
 - If using soap and water, rinse your hands with clean water and dry on paper towel or allow to dry on their own.



1 Rub palms together.



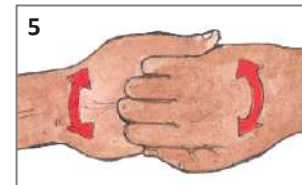
2 Rub tips of nails against palm. Swap hands.



3 Rub fingers between each other.



4 Place one hand over back of other, rub between fingers. Swap hands.



5 Grip fingers and rub together.



6 Rub each thumb with opposite palm. Swap hands.

2. Practise good respiratory hygiene

- Cover mouth and nose with a tissue or elbow (not hands) when coughing or sneezing. If using a tissue, discard immediately and wash hands.
- Wear a medical mask or N95 respirator according to your task.
- While wearing mask/respirator, avoid fiddling with or touching outside surface at all times. If touched, perform hand hygiene immediately.
- Provide medical mask for patient with suspected or confirmed COVID-19.
- Perform hand hygiene if contact with respiratory secretions.
- Avoid touching your eyes, nose and mouth with unwashed hands.



3. Practise good environmental infection control

- Clean and disinfect at least once a day:
 - All frequently touched surfaces, like workstations, telephones, keyboards, counter tops, doorknobs and medical equipment.
 - All surfaces that patients have contact with.
- First clean with soap and water then wipe with hospital disinfectant like sodium hypochlorite (5000 ppm) or 70% ethyl alcohol.



- Avoid touching surfaces unless necessary.
- Leave doors open if possible, or use feet/hips to open doors instead of using door handles.



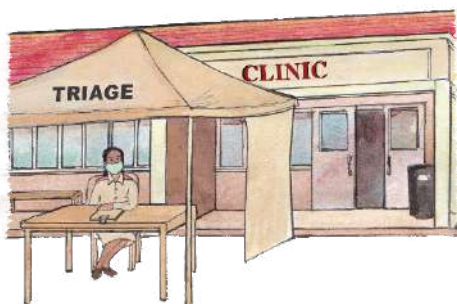
- If possible, use disposable or dedicated equipment (like stethoscopes, blood pressure cuffs, thermometers).
- If sharing equipment between patients, clean and disinfect between each use.
- Avoid performing aerosol-generating procedures¹, unless essential. If essential, ensure appropriate PPE is worn.

- Ensure laundry, food utensils and medical waste are managed according to safe standard procedures.
- Change linen regularly and send to laundry marked as infectious.



4. Manage patient flow within facility

- Have a separate, well-ventilated triage area near facility entrance for patients with respiratory symptoms.



- If suspected COVID-19, give patient a medical mask and isolate in well ventilated single room.
- If single room not available, isolate patient in separate area allocated for patients with suspected COVID-19.
- Ensure adequate ventilation and maintain a distance of at least 1 metre between patients.



- Limit patient movement within facility:
 - If possible, perform tests and procedures in patient's room and use portable x-ray equipment.
 - Ensure patient wears a medical mask if needing to move through facility.

- Limit people in contact with patient, including health workers.
- Avoid visitors. If essential, ensure visitor cleans hands thoroughly on arriving and leaving, and wears medical mask.



¹Aerosol generating procedures include: chest physiotherapy, nebulizer treatment, sputum induction, endotracheal intubation, airway suction, positive pressure ventilation (BiPAP and CPAP), high frequency oscillatory ventilation, tracheostomy and bronchoscopy.

5. Wear appropriate Personal Protective Equipment (PPE)

- Precautions are required by health workers to protect themselves and prevent transmission of COVID-19. This includes the appropriate use of PPE.
- Help ensure a safe supply of PPE by using it appropriately and only when indicated.
- Wear PPE according to your task:

Triaging or screening patients:

- Medical mask



Managing a patient or collecting respiratory specimens in patient with suspected/confirmed COVID-19:

- Medical mask
- Goggles/visor
- Gown
- Gloves



Performing aerosol-generating procedure¹ in patient with suspected/confirmed COVID-19:

- N95 respirator
- Goggles/visor
- Gown
- Apron (if gown is not fluid resistant)
- Gloves



When do I change my PPE?

- Change gloves between each patient.
- Change apron/gown if wet/dirty/damaged or after performing aerosol-generating procedure¹.
- If using **medical mask**:
 - May be used continuously for up to 6 hours if severe shortage of supply.
 - Discard after 6 hours of use or sooner if displaced, touched by unwashed hands, gets wet/dirty/damaged or difficult to breathe through.
- If using **N95 respirator**:
 - Ideally, respirator should be used once only and then discarded. However respirator may be used continuously for up to 6 hours if severe shortage of supply.
 - Avoid touching outside surface of respirator at all times. If touched, wash/disinfect hands immediately and change gloves.
 - Discard after 6 hours of use or sooner if displaced, touched by unwashed hands, gets wet/dirty/damaged or difficult to breathe through.

¹Aerosol generating procedures include: chest physiotherapy, nebulizer treatment, sputum induction, endotracheal intubation, airway suction, positive pressure ventilation (BiPAP and CPAP), high frequency oscillatory ventilation, tracheostomy and bronchoscopy. Avoid nebulisers and sputum induction if suspected/confirmed COVID-19.

How do I put on PPE correctly?

- Ensure you always first put on PPE correctly, even before performing CPR or other emergency procedures.

1 Clean hands for at least 20 seconds

- Disinfect hands using alcohol based hand rub, or thoroughly wash hands using soap and water.



2 Put on gown/apron

- If gown, fully cover torso from neck to knees, arms to end of wrists, and wrap around back. Fasten at back of neck and waist.
- If apron, place loop over head and fasten around waist.
- When fastening, use bow (not a knot) for easy release.



3 Put on mask/respirator

- Secure ties or elastic bands at middle of head and neck.
- Mould flexible band to nose bridge (do not pinch).
- Ensure mask is pulled down under chin.
- If respirator, check good fit by breathing in and out: mask should move in and out with breath.



4 Put on goggles/visor

- Place over face and adjust to fit.



5 Put on non-sterile gloves

- Extend gloves to cover wrists/end of gown.



How do I remove PPE safely?

- Before leaving patient's room, remove all PPE except mask/N95 respirator.
- After leaving patient's room, close door and then remove mask/N95 respirator.
- When removing PPE, remember that outside of gloves, goggles/visor, gown/apron and mask/respirator is contaminated: if your hands touch the outside of any of these items during removal, immediately clean hands before removing next item.

1 Remove gloves

- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove.
- Hold removed glove in gloved hand.
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove.
- Discard in medical waste bin.



2 Remove gown/apron

- If wearing a visor (not goggles), remove visor as below before removing gown/apron.
- Unfasten gown/apron ties. Ensure sleeves don't touch body when doing this.
- If gown: pull gown away from neck and shoulders, touching only inside of gown. Turn gown inside out.
- If apron: pull over head and roll downwards, touching only inside of apron.
- Fold or roll in to bundle and discard in medical waste bin.



3 Clean hands for at least 20 seconds

- Disinfect hands using alcohol based hand rub, or thoroughly wash hands using soap and water.

4 Remove goggles/visor

- Remove goggles/visor from back by lifting head band or ear pieces.
- Place in container for reprocessing.



5 Remove mask/respirator

- If mask, first untie/break bottom ties, then top ties and remove without touching front of mask.
- If respirator, first grab bottom elastic, then top elastic and remove without touching front of respirator.
- Discard in medical waste bin.



6 Clean hands for at least 20 seconds

- Disinfect hands using alcohol based hand rub, or thoroughly wash hands using soap and water.



6. How to transition between home and work

- Follow these principles to protect yourself at work and to protect your family by not bringing COVID-19 home.

What must I do before leaving home and arriving at work?



Clothes

- Wear dedicated simple clothing (like short-sleeved t-shirt and pants) and cheap/old, dedicated work shoes. If long sleeves, keep them rolled up.
- Hot wash and dry clothes daily (or alternate 2 sets if unable to dry daily).
- Avoid wearing a belt, jewellery and a lanyard.
- Avoid a cloth surgical cap, use a disposable cap instead.



Phone, wallet and keys

- Leave wallet at home – bring essentials (like access card, drivers licence, bank card) in sealable plastic bag.
- Remove protective case from phone. Consider keeping phone in closed, sealable plastic bag and change this daily.
- Keep your phone in your pocket/bag, avoid placing it on work surfaces. Leave it on loud volume.
- If able, wipe phone down between each patient.
- Keep your keys in your pocket/bag and do not remove until after you have washed hands when leaving work.



Food and drink

- Bring lunch from home in reusable fabric shopping bag, avoid bought lunches from canteen/tearoom.
- Use own water bottle, avoid water coolers, kitchens and bought drinks.



What can I do to protect my family when leaving work and arriving home?

- Leave pen at work. Frequently coat it with alcohol hand rub throughout the day.

When leaving work:

- Remove work clothes and place in plastic bag to take home.
- Perform thorough hand and arm wash.



- Keep alcohol hand rub in car/bag and use to clean hands.

When you arrive home:

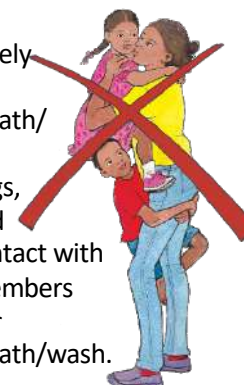
- Remove shoes and leave outside before entering home.



- If not already changed, remove work clothes at front door. Put these (or clothes in bag if changed already) straight into a hot wash, along with reusable fabric shopping bag. Then thoroughly wash hands.



- Immediately have hot shower/bath/wash.
- Avoid hugs, kisses and direct contact with family members until after shower/bath/wash.



Recommendations based on the following technical guidance:

1. World Health Organization (WHO). Global surveillance for COVID-19 caused by human infection with COVID-19 virus. Interim guidance. 20 March 2020.
2. World Health Organization (WHO). The COVID-19 Risk Communication Package For Healthcare Facilities. Updated 10 March 2020.
3. World Health Organization (WHO). Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected. Interim guidance. 13 March 2020.
4. World Health Organization (WHO). Infection prevention and control during health care when COVID-19 is suspected. Interim guidance. 19 March 2020.
5. World Health Organization (WHO). Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts. Interim guidance. 17 March 2020.
6. World Health Organization (WHO). Advice on the use of masks in the context of COVID-19. Interim guidance 6 April 2020.
7. World Health Organization (WHO). Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages. Interim guidance. 6 April 2020.
8. World Health Organization (WHO). Water, sanitation, hygiene, and waste management for the COVID-19 virus. 19 March 2020.
9. World Health Organization (WHO). Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19). Interim guidance. 19 March 2020.
10. World Health Organization (WHO). Clinical care for severe acute respiratory infection toolkit. COVID-19 adaptation. 11 April 2020.
11. BMJ Best Practice: Coronavirus disease 2019 (COVID-19) <https://bestpractice.bmj.com/topics/en-gb/3000168>
12. UpToDate: Coronavirus disease 2019 (COVID-19). <https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19#H1354847215>
13. UpToDate: Coronavirus disease 2019 (COVID-19): Critical care issues. https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-critical-care-issues?sectionName=RESPIRATORY%20CARE%20OF%20THE%20NONINTUBATED%20PATIENT&topicRef=126981&anchor=H1683933351&source=see_link#H1683933351