

adult primary care

COVID-19

Guidance for health workers in Primary Health Care Facilities

Version 2

Updated September 2020 for use in Primary Health Care Facilities in South Africa.

This guidance is aligned to the NDoH/NICD Clinical management of suspected or confirmed Covid-19 disease, Version 5 (Aug 2020) and the Standard Treatment Guidelines and Essential Medicines List for South Africa, Primary Healthcare level, 2018 edition.

Note that COVID-19 guidance is evolving.

Check www.nicd.ac.za and www.knowledgehub.org.za for latest versions.

Updated September 2020



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



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All medications have been colour coded in either **orange** or **blue** to indicate prescriber level for that particular indication and at that dose:

Orange-highlighted medications may be prescribed by a **doctor or a nurse** according to his/her scope of practice.

Blue-highlighted medications are **doctor-prescribed** medications. This means that these medications may only be prescribed by a doctor.

Arrows refer you to another page in the guide:

- The return arrow (↶) guides you to a new page but suggests that you return and continue on the original page.
- The direct arrow (→) guides you to continue on another page.

The response to COVID-19 is rapidly changing as new evidence becomes available and health systems adapt. The KTU welcomes feedback on this guidance as it continues to be updated for future versions. Please send feedback to www.knowledgetranslation.co.za/contact/feedback

GLOSSARY

IPC	Infection Prevention and Control
Isolation	Isolation is when a person with confirmed COVID-19, or a person with likely COVID-19 who is not eligible for testing, is separated from others.
PPE	Personal Protective Equipment
Quarantine	Quarantine is when a person is separated from others because s/he: <ul style="list-style-type: none"> • is waiting for COVID-19 test results OR • has been in close contact with someone with COVID-19 but is asymptomatic and may become infectious with or without developing symptoms.
RA	Rheumatoid arthritis
SLE	Systemic Lupus Erythematosus

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SCREEN ALL PATIENTS FOR COVID-19

- Ensure triage staff wear a surgical mask and keep 1-2m distance from patients. Ensure queuing patients keep 1-2m apart from each other and wear cloth masks.
- Have 70% alcohol-based hand sanitiser or soap and water handwashing stations available for all patients entering facility.
- Ensure facility has separate patient pathways for patients who are suspected of having COVID-19 and those who are not.
- Ensure triage station has a supply of surgical masks to give to symptomatic patients and patient information leaflets for contacts.

If patient known with COVID-19 and returning with worsening symptoms, fast track this patient:
Give surgical mask and send patient to separate area identified for emergency care of COVID-19 patients for urgent attention →4.

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

Ask each patient if s/he has had **new onset** of any of the following in the last 14 days:

- Shortness of breath or difficulty breathing
- Cough
- Sore throat
- Loss of sense of smell or change in sense of taste
- If s/he known with asthma or COPD with chronic symptoms: worsening cough or breathing

Screen as at:
September 2020

Yes to any

No to all

Consider as patient with **suspected COVID-19**

- Give patient a surgical mask to wear.
- Does patient have shortness of breath or difficulty breathing?

Yes

No

Send patient to separate area identified for emergency care of COVID-19 patients for urgent attention →4.

- Send patient to separate waiting area for patients with suspected COVID-19 and COVID-19 close contacts.
 - Ensure patients sit 1-2m apart.
 - Advise on cough and hand hygiene.
- If patient with suspected COVID-19, continue to assess and manage →5.
- If patient is a COVID-19 close contact, continue to assess and manage:
 - If patient is a health worker →30.
 - If patient is not a health worker →15.

In last 10 days, has patient been in close contact¹ with anyone who has COVID-19?

Yes

No

- Consider patient a **COVID-19 close contact**.
- Give patient a surgical mask to wear.

- Send patient to attend normal waiting area.
- Ensure s/he continues to wear cloth mask. If patient does not have a cloth mask, give paper mask.
- Ask patients to sit 1-2m apart if possible.

COVID-19 may also present with less common symptoms. Consider COVID-19 if patient has any of the following symptoms:

- If fever →11.
- If headache →12.
- If diarrhoea →13.
- If muscle aches or general/body pain →14.

- Manage other symptoms using APC.
- If attending for routine care of chronic condition, also check if care can be de-escalated →16.

¹Close contact is when a person has had face-to-face contact (within 1 metre) of a COVID-19 person, or has been in a closed environment (like room or vehicle) with a COVID-19 person for at least 15 minutes.

ASSESS AND MANAGE THE PATIENT WITH SUSPECTED COVID-19

Before managing a patient with suspected COVID-19, ensure you are wearing appropriate personal protective equipment →25.

Consider severe COVID-19 as well as other causes¹.

Give urgent attention to the patient with suspected COVID-19 and any of:

- Short of breath at rest or while talking
- Respiratory rate ≥ 25
- Oxygen saturation $< 95\%$
- Pulse rate > 120
- BP $< 90/60$
- Confused, agitated or decreased consciousness
- Sudden breathlessness, more resonant/decreased breath sounds/pain on 1 side, deviated trachea, BP $< 90/60$: **tension pneumothorax** likely
- Coughing up fresh blood

Manage and refer urgently:

- Give oxygen and monitor oxygen saturation:
 - Ideally use nasal prongs, start 1-4L/min. If only facemask available, give 6-10L/min. Aim for oxygen saturation $\geq 90\%$.
 - If patient remains distressed or oxygen saturation $< 90\%$, give facemask oxygen with reservoir bag (non-rebreather) at 10-15L/min.
- If BP $< 90/60$, give **sodium chloride 0.9%** 250mL IV slowly over 30 minutes, repeat until systolic BP ≥ 90 . Continue 1L 6 hourly. Stop if breathing worsens.

If known asthma/COPD and wheeze:

- Give inhaled **salbutamol** via spacer 400-800mcg (4-8 puffs) every 20 minutes \supset APC to see how to use inhaler with spacer. Avoid nebuliser².
- Give single dose **prednisone** 40mg orally. If unable to take oral medication, give single dose **hydrocortisone** 100mg IM/slow IV.
- If poor response to salbutamol and patient still distressed whilst waiting for transport, give **magnesium sulphate** 2g in 100mL **sodium chloride 0.9%** IV slowly over 20 minutes.

If known diabetes and rapid deep breathing with glucose > 11 mmol/L:

- Discuss IV fluids with referral centre.
- If referral delay > 2 hours: give **short-acting insulin** 0.1 units/kg IM (not IV³). Avoid using insulin needle to give IM insulin. Use 22-25 gauge needle depending on weight of patient.

If known heart problem

If difficulty breathing worse on lying flat and leg swelling, treat for **acute heart failure (pulmonary oedema)**.

- Sit patient up.
- If systolic BP > 90 : give **furosemide** 40mg slow IV. If no response after 30 minutes, give further **furosemide** 80mg IV. If good response, give 40mg IV over 2-4 hours.
- If systolic BP > 90 : give sublingual **isosorbide dinitrate** 5mg even if no chest pain. Repeat once if pain relief needed. Then repeat after 4 hours.
- If BP $\geq 180/130$: give single dose **enalapril** 10mg orally.

If tension pneumothorax likely:

- Insert large bore cannula above 3rd rib in midclavicular line.
- Arrange urgent chest tube. If not possible, refer urgently.

- If referral delay > 2 hours, temperature $\geq 38^{\circ}\text{C}$ and respiratory rate ≥ 30 , give **ceftriaxone** 2g IV/IM to treat for possible severe bacterial pneumonia.
- If unsure, consult doctor/specialist according to referral pathway. If difficulty reaching specialist, phone NICD hotline on 0800 11 1131 or 082 883 9920 or 066 562 4021 or send an SMS with your name and query to NICD on 066 562 4021.
- Inform EMS and referral centre that the patient has respiratory distress and is a suspected COVID-19 case.

Clean and disinfect after patient has been referred \supset 24.

If patient not needing urgent attention, continue to assess and manage →5.

¹Other causes may include TB, bacterial pneumonia, Pneumocystis pneumonia (PCP or PJP) if immunocompromised. ²Avoid nebuliser: it is considered an aerosol-generating procedure that can spread coronavirus. ³Avoid giving insulin intravenously (IV) as it may cause low potassium and heart dysrhythmia and needs in-hospital electrolyte monitoring

Approach to the patient with suspected COVID-19 not needing urgent attention

Before managing a patient with suspected COVID-19, ensure you are wearing appropriate personal protective equipment ↪ 25.

Consider other conditions:

- Ask about and manage other symptoms: if cough ↪ 9, sore throat ↪ 10, fever ↪ 11, headache ↪ 12, diarrhoea ↪ 13, general/body pain ↪ 14. Manage other symptoms using APC.
- Ensure to screen for:

HIV

- If status unknown or tested negative > 6 months ago, test for HIV ↪ APC.
- If newly diagnosed HIV or HIV not on ART: delay ART until symptoms resolve. Follow up in 2 weeks.

TB

- Send sputum for Xpert MTB/RIF if:
- HIV positive and cough.
 - HIV negative and has a close contact with TB.
 - Cough ≥ 2 weeks, weight loss ≥ 1.5kg, drenching night sweats, fever ≥ 2 weeks.

Diabetes

- If ≥ 40 years or BMI ≥ 25 and any other risk factor¹, check glucose ↪ APC. If diabetes newly diagnosed, refer to doctor.

- If known chronic condition, check that it is well controlled. Also check if de-escalation of care possible to protect patient from COVID-19 ↪ 16.

Check if patient is eligible for a COVID-19 test based on local current guidance/protocols

Testing protocols will change over time. Check the current status of your area.

Routine testing approach

(testing of all symptomatic patients)

All patients with COVID-19 symptoms are able to have a test for COVID-19.

Selective testing approach

(testing of only priority patients)

Is patient > 55 years or a health care worker (including carers)?

Yes

No

Does patient have any of the following risk factors for severe COVID-19?

- | | |
|--|---|
| <ul style="list-style-type: none"> • Diabetes • HIV • TB (current or previous) • Chronic kidney disease • Hypertension or heart disease | <ul style="list-style-type: none"> • Chronic lung disease (like asthma, COPD, chronic bronchitis) • Cancer • Other immunosuppressive disorders (like SLE, RA) • Living in a long-term care facility |
|--|---|

Yes

No

Test for COVID-19.

Collect a single upper respiratory swab, preferably a nasopharyngeal swab ↪ 6.

Then decide if patient able to safely isolate at home while waiting for result ↪ 7.

- Explain that capacity for COVID-19 testing is limited and based on his/her symptoms, it is likely that s/he has COVID-19.
- Manage empirically for likely **COVID-19** ↪ 8.

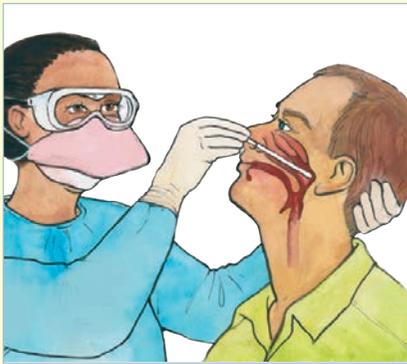
¹Diabetes risk factors: physical inactivity, hypertension, parent or sibling with diabetes, polycystic ovarian disease, Indian ethnicity, cardiovascular disease, diabetes during pregnancy or previous big baby > 4000g, previous impaired glucose tolerance or impaired fasting glucose or TB in past year. ²These are areas with a high prevalence of COVID-19 (like Cape Town Metro). If unsure, check with facility manager.

HOW TO TAKE A SWAB FOR SARS-COV-2 (COVID-19)

- A patient with suspected COVID-19 needs testing for the virus SARS-CoV-2, which causes the disease COVID-19.
- Take one upper respiratory specimen: a nasopharyngeal or mid-turbinate specimen is preferred. Do oropharyngeal or nasal swab if unable to do nasopharyngeal or mid-turbinate swab.
- Sampling can be done at any time of day.
- Complete NHLS request form to send with specimen. Fill in 'SARS-COV-2 testing (PCR)' under other tests (all disciplines) section. Record correct contact details and alternative number.
- Before starting:
 - Wear appropriate PPE: respirator, goggles/visor, gown/apron and gloves. Ensure PPE put on correctly ➤ 26.
 - Explain procedure to patient and that s/he may feel some discomfort for a short time.
 - Open a sterile flocked swab with a plastic shaft.

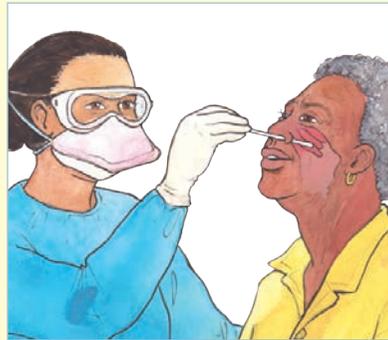
If taking nasopharyngeal specimen:

- Ask patient to tilt head back.
- Holding swab like a pen, insert swab into nostril and carefully advance swab backwards (not upwards), until you feel resistance at posterior nasopharynx (about 5-6cm). If resistance felt sooner, try other nostril.
- Gently rotate swab 2-3 times and hold in place for 2-3 seconds, then withdraw from nostril.



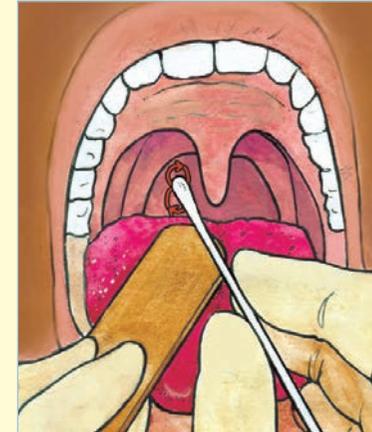
If taking mid-turbinate specimen:

- Ask the patient to tilt head back.
- Gently insert swab into nostril until you feel resistance at turbinates (about 2 cm).
- Gently rotate swab several times against nasal wall.
- Repeat in other nostril using same swab.



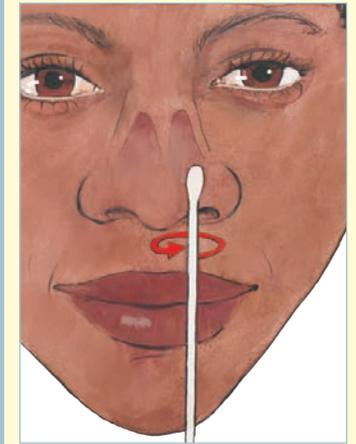
If taking oropharyngeal specimen:

- Ask patient to tilt head back and open mouth.
- Hold tongue down with tongue depressor.
- Ask patient to say "aahh" to elevate the uvula.
- Swab each tonsil first, then swab posterior pharynx using figure of 8 movement.
- Avoid swabbing the soft palate or the tongue as this can cause a gag reflex.



If taking nasal specimen:

- Gently insert swab into nostril (about 1 cm).
- Firmly rotate swab against nasal wall and leave it in place for 10-15 seconds.
- Repeat in other nostril using same swab.



- Break off the swab shaft at the break point dent on shaft and place it into universal transport medium (UTM) tube. Tightly close tube and place in plastic bag. Ensure sample is kept between 2-8°C until processed at laboratory.
 - If no UTM available and specimen will reach laboratory within 2 days, send dry swab at room temperature in sterile specimen jar/tube.
 - If no UTM available and specimen will reach laboratory after 2 days, place in normal saline in sterile specimen jar/tube instead.
- Change apron/gown and gloves, cleaning hands thoroughly, between each patient ➤ 25. Once finished taking specimens, remove PPE correctly ➤ 27.

Continue to manage the patient who has had a COVID-19 test.

If patient is known diabetes:

- Explain that s/he is at risk of severe COVID-19. Advise that if s/he develops shortness of breath, weakness or high fevers/chills, s/he should go to nearest emergency centre without delay.
- If no HbA_{1c} result in past 3 months: take HbA_{1c} today.
- Continue with routine chronic medications. If patient has glucometer at home, give glucose strips and advise to check fasting glucose when wakes each morning and keep a record.

- Explain that s/he will receive test results via phone call or SMS message.
- Advise that there is no need to return to facility unless condition worsens. Ensure correct contact details. Include an alternative phone number.
- Advise patient to inform household members to use strict hygiene and prevention measures and monitor themselves for symptoms until patient's test result has been confirmed. If test result is positive, close contacts¹ should quarantine for 10 days since last contact with patient.

Assess if patient able to safely isolate at home

- Is patient able to isolate in a separate room from others?
- Is patient able to contact or return to health facility urgently if his/her condition worsens?

Yes to both

Discharge for home management

- For fever or pain, advise to take **paracetamol** 1g 6 hourly orally as needed, rather than NSAIDS (like ibuprofen). If using NSAIDS for other condition/s, do not discontinue.
- Check patient understands to monitor symptoms at home (see red box below).
- Check patient understands how to safely isolate ↷ 15 and give information leaflet. Refer to community-based services for follow up if available.
- Provide medical certificate for sick leave for 10 days from date that symptoms started.

No to either

- Encourage referral for alternate accommodation within an isolation facility. If patient agrees, refer as per local process.
- If unsure, contact Provincial hotline or NICD hotline 0800 11 1131.

Check latest policy on duration of isolation and medical leave.

Explain when to end isolation

- Explain that no repeat testing will be needed. Patient may discontinue isolation 10 days after date that symptoms started.
- If symptoms have not resolved by 10 days, advise to contact facility before ending isolation.

Clean and disinfect after patient has left facility ↷ 24.

Advise to call health facility (give number) or Provincial hotline or National hotline on 0800 029 999 or return urgently to health facility if:

Shortness of breath, difficulty breathing, persistent chest pain/pressure, new confusion or worsening drowsiness.

Follow up test results as per facility protocol

SARS-CoV-2 positive: patient has **COVID-19**.

SARS-CoV-2 negative

- Notify as Notifiable Medical Condition: notify electronically or download hard copies <https://www.nicd.ac.za/nmc-covid-19-documents/>
- Refer case for contact tracing.

Also ensure protocols in place for follow up of other results (TB sputums, CD4 count/CrAg, HbA_{1c} and creatinine if taken): if Xpert or CrAg positive or HbA_{1c} abnormal, recall patient.

¹Close contact is when a person has had face-to-face contact (within 1 metre) of a COVID-19 person, or has been in a closed environment (like room or vehicle) with a COVID-19 person for at least 15 minutes.

Continue to manage the patient with COVID-19 symptoms who has not had a COVID-19 test.

- This refers to the patient with symptoms suggestive of COVID-19, but who is not eligible for a COVID-19 test.
- Manage this patient empirically for **presumptive COVID-19**: this means manage as if s/he has been diagnosed with COVID-19.

It is no longer required to notify suspected cases, notify only confirmed COVID-19 cases as a Notifiable Medical Condition.

Report close contacts¹

- If able, complete contact line list form, especially persons at risk² > 33 and send to relevant co-ordinator.
- Advise patient to inform his/her close contacts to quarantine and monitor themselves for symptoms for 10 days since last contact with patient.

Assess if patient is able to safely isolate at home

- Is patient able to isolate in a separate room from others?
- Is patient able to contact or return to health facility urgently if his/her condition worsens?

Yes to both

No to either

Discharge to isolate at home

- For fever or pain, advise to take **paracetamol** 1g 6 hourly orally as needed, rather than NSAIDS (like ibuprofen). If using NSAIDS for other condition/s, do not discontinue.
- Check patient understands how to safely isolate > 15 and give information leaflet.
- Check patient understands to monitor symptoms at home (see red box below). Advise to call ambulance if s/he becomes severely ill.
- Refer to community-based services for follow up if available.
- Provide medical certificate for sick leave for 10 days from date that symptoms started.

Check latest policy on duration of isolation and medical leave.

- Encourage referral for alternate accommodation within an isolation facility. If patient agrees, refer as per local process.
- If unsure, contact Provincial hotline or NICD hotline 0800 11 1131.

Explain when to end isolation

- Patient may discontinue isolation 10 days after date that symptoms started.
- If symptoms have not resolved within 10 days, advise to contact facility to discuss with health care worker before ending isolation.

Clean and disinfect after patient has left facility > 24.

Advise to call health facility (give number) or Provincial hotline or National hotline on 0800 029 999 or return urgently to health facility if:
Shortness of breath, difficulty breathing, persistent chest pain/pressure, new confusion or worsening drowsiness.

¹Close contact is when a person has had face-to-face contact (within 1 metre) of a COVID-19 person, or has been in a closed environment (like room or vehicle) with a COVID-19 person for at least 15 minutes. ²Persons at risk include those > 55 years old, those with diabetes, HIV, TB (current or previous), chronic kidney disease, hypertension, heart disease, chronic lung disease (like asthma, COPD, chronic bronchitis) and immunosuppressive disorders (like cancer, SLE, RA).

COUGH

- If not already done, check if patient needs urgent attention ↪ 4.
- If wheeze ↪ APC. Avoid nebuliser as it is considered an aerosol-generating procedure that can spread coronavirus. Rather use inhaler with spacer.

Approach to the patient with cough not needing urgent attention

If new cough that started < 14 days ago or if known with chronic lung disease and cough has significantly worsened, manage as **COVID-19** if not already done ↪ 4.
Also consider and manage other possible conditions below:

- If HIV status unknown or tested negative > 6 months ago, test for HIV if not already done ↪ APC.
- Ask about duration and recurrence of cough:

< 2 weeks duration *and* cough not recurrent

≥ 2 weeks or recurrent episodes of cough

Is patient coughing sputum?

No

Influenza or **common cold** or **COVID-19** likely
 Manage as COVID-19 ↪ 4.

Yes

Is pulse rate ≥ 100 or respiratory rate ≥ 20 or temperature ≥ 38°C?

No

Acute bronchitis likely

- If known COPD and sputum increased or colour changed to yellow/green, give antibiotics ↪ APC. Otherwise reassure antibiotics are not necessary.
- Advise to return same day if symptoms worsen, fever develops or no better after 2 weeks.

Yes

Pneumonia likely

- Confirm on chest x-ray or with crackles/bronchial breathing on auscultation.
- Exclude TB ↪ APC.
- If poor adherence likely or access to urgent care difficult, refer.
- Any of: HIV, > 65 years, lung/heart/liver/kidney disease, diabetes or alcohol misuse?

Yes

Give **amoxicillin/clavulanic acid** 875/125mg 12 hourly for 5 days.

No

Give **amoxicillin** 1g 8 hourly for 5 days.

If penicillin allergy, give instead **moxifloxacin** 400mg daily for 5 days.

Review after 2 days: if no better, refer. Advise to return same day if symptoms worsen.

HIV with CD4 < 200 and dry cough, worsening breathlessness on exertion.

Pneumocystis pneumonia likely

Refer.

Blocked/runny nose or persistent snoring ↪ APC.

Recent upper respiratory tract infection, no difficulty breathing

Post-infectious cough likely

- Reassure cough should resolve on its own.
- Advise to return if cough persists 8 weeks.

Smoker or recently stopped

- If weight loss, consider **lung cancer** ↪ APC.
- If coughing sputum most days of 3 months for ≥ 2 years, **chronic bronchitis** likely. Discuss.

If diagnosis uncertain or poor response to treatment, refer.

MOUTH AND THROAT SYMPTOMS

Give urgent attention to the patient with mouth/throat symptoms and any of:

- Unable to open mouth or swallow at all
- If sudden face/tongue swelling and any of: wheeze, difficulty breathing, BP < 90/60, dizziness/collapse, abdominal pain, vomiting or exposure to possible allergen¹, check for anaphylaxis → APC

Refer urgently.

Approach to the patient with mouth/throat symptoms not needing urgent attention

- Stand to the side when looking in mouth in case patient coughs/gags and avoid throat examination if possible. If throat examination essential, wear appropriate PPE: surgical mask, goggles/visor, gloves, apron/gown.
- If gum or tooth problem → APC.
- Ask about swallowing problems. If food/liquid gets stuck with swallowing, refer.
- Ask about sore throat and dry mouth, and safely look in and around mouth for white patches, blisters, ulcers or cracks:

Sore throat		Dry mouth	White patches on cheeks, gums, tongue, palate	Painful blisters on lips/mouth	Painful ulcer/s with Central white patch	Red, cracked corners of mouth
<ul style="list-style-type: none"> • Manage as COVID-19 → 4 if not already done. • Safely examine throat while wearing appropriate PPE: <ul style="list-style-type: none"> - If red swelling blocking the airway, refer urgently. - Does patient have either of: <ul style="list-style-type: none"> • Enlarged tonsils with pus/white patches on tonsils <i>or</i> • Enlarged tonsils <i>without</i> cough or runny nose 		<ul style="list-style-type: none"> • If thirst, urinary frequency or weight loss, exclude diabetes → APC. • If runny or blocked nose → APC. • Look for and treat oral candida (see adjacent). • Review medication: furosemide, amitriptyline, chlorpheniramine, antipsychotics and morphine can cause dry mouth. Discuss with doctor. • Advise to sip fluids frequently. Sucking on oranges, pineapple, lemon or passion fruit may help. • If patient has a life-limiting illness, also consider giving palliative care → APC. 	<p>Oral candida likely</p> <ul style="list-style-type: none"> • Give nystatin suspension 1mL 6 hourly for 7 days. • Keep in mouth as long as possible. Continue for 2 days after white patches resolved. • If on inhaled corticosteroids, advise to rinse mouth after use. • Test for HIV → APC and diabetes → APC. • If patient has a life-limiting illness, also consider giving palliative care → APC 	<p>Herpes simplex likely</p> <ul style="list-style-type: none"> • Test for HIV → APC. • Advise to rinse mouth with salt water² for 1 minute twice a day. • Apply petroleum jelly to blisters. • For pain, apply tetracaine 0.5% to blisters 6 hourly and give paracetamol 1g 6 hourly as needed for up to 5 days. • If HIV positive, give aciclovir 400mg 8 hourly for 7 days. • If severe or no better after 1 week of treatment, refer. 	<p>Aphthous ulcer/s likely</p> <ul style="list-style-type: none"> • For pain, apply tetracaine 0.5% to ulcers 6 hourly. • Refer if: <ul style="list-style-type: none"> - Not healed within 10 days. - Ulcer > 1cm 	<p>Angular stomatitis likely</p> <ul style="list-style-type: none"> • Apply zinc and castor oil ointment 8 hourly. • If also oral candida, treat in adjacent column and apply clotrimazole cream 12 hourly for 2 weeks. • If crusts and blisters around mouth, impetigo likely → APC. • If very itchy, contact dermatitis likely. Identify and remove irritant. • If dentures, ensure good fit and advise to clean every night. • If on inhaled corticosteroids, advise to rinse mouth after use. • If no better or uncertain of cause: <ul style="list-style-type: none"> - Check Hb. - Test for HIV → APC and diabetes → APC. - If still uncertain, refer.
No Viral pharyngitis likely	Yes Bacterial pharyngitis/tonsillitis likely					
Explain that antibiotics not necessary.	<ul style="list-style-type: none"> • If ≤ 21 years old, give amoxicillin³ 1g 12 hourly for 10 days or phenoxymethylpenicillin³ 500mg 12 hourly for 10 days. • If > 21 years old, advise to return if symptoms persist/ worsen: discuss/refer. 					
			If difficulty or pain on swallowing, oesophageal candida likely:			
			<ul style="list-style-type: none"> • Give fluconazole 200mg daily for 14 days. • If no better, refer. 			

- Advise the patient with a sore mouth/throat to avoid spicy, hot, sticky, dry or acidic food and to eat soft, moist food.
- Keep mouth and teeth clean by brushing and rinsing regularly.

¹Common allergens include medication, food or insect bite/sting within the past few hours. ²Add 2.5mL (½ teaspoon) of table salt to 200mL lukewarm water. ³If penicillin allergy, give instead **azithromycin** 500mg daily for 3 days.

FEVER

A patient with a fever has a temperature $\geq 38^{\circ}\text{C}$ now or in the past 3 days.

- Fits or just had a fit \rightarrow APC
- Respiratory rate ≥ 30 or difficulty breathing \rightarrow 4

Management:

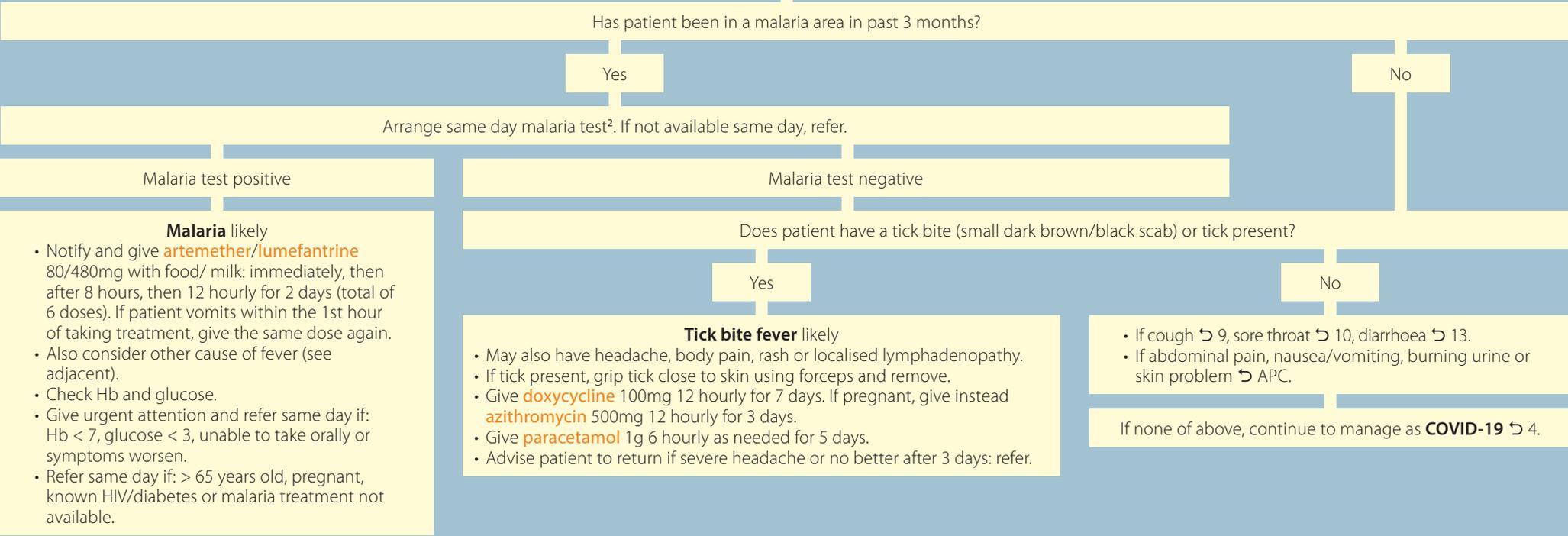
- If BP $< 90/60$, give **sodium chloride 0.9%** 500mL IV over 30 minutes, repeat until systolic BP > 90 . Continue 1L 6 hourly. Stop if breathing worsens.
- If meningitis likely, give **ceftriaxone**¹ 2g IM.
- If glucose < 3 or > 11 \rightarrow APC.
- **Refer urgently:** notify ambulance services and referral centre that the patient may have COVID-19.

Give urgent attention to the patient with a fever and any of:

- BP $< 90/60$
- Neck stiffness, drowsy/confused or purple/red rash, **meningitis** likely
- Tender in right lower abdomen, **appendicitis** likely

- Severe abdominal or back pain
- Jaundice
- Easy bleeding or bruising

Approach to the patient with a fever not needing urgent attention
 Manage as **COVID-19** \rightarrow 4 if not already done. Also consider and manage other possible causes of fever.



¹If severe penicillin allergy (previous angioedema, anaphylaxis or urticaria), discuss with doctor. ²Test for malaria with rapid diagnostic test if available, and parasite slide microscopy.

HEADACHE

Give urgent attention to the patient with headache and any of:

- Decreased consciousness ↪ APC
- BP ≥ 180/130 and not pregnant ↪ APC
- Pregnant or 1 week postpartum, and BP ≥ 140/90 ↪ APC
- Sudden weakness/numbness of face/arm/leg or speech problem ↪ APC
- New vision problem or eye pain ↪ APC
- Sudden severe headache or dizziness
- Headache that is getting worse and more frequent
- Headache that wakes patient or is worse in the morning
- Neck stiffness, drowsy/confused or purple/red rash: meningitis likely
- Persistent nausea/vomiting
- Persistent headache since starting ART
- Following a first seizure
- Recent head injury
- Unequal pupils

Manage and refer urgently:

- If temperature ≥ 38°C or meningitis likely: give **ceftriaxone**¹ 2g IM.
- If recent positive cryptococcal antigen test, give **fluconazole**² 1200mg (avoid if pregnant, breastfeeding or known liver disease).

Approach to the patient with headache not needing urgent attention

Has patient had recent runny/blocked nose and now any of: thick nasal/postnasal discharge, pain when pushing on forehead/cheeks, headache worse on bending forward?

Yes

Sinusitis likely

- Give **paracetamol** 1g 6 hourly as needed for up to 5 days.
- Give **sodium chloride 0.9%** nose drops as needed.
- Give **oxymetazoline 0.05%** 2 drops in each nostril 8 hourly as needed for a maximum of 5 days. Advise against overuse which may worsen blocked nose.
- If symptoms ≥ 10 days, fever ≥ 38°C, purulent nasal discharge, face pain ≥ 3 days or symptoms worsen after initial improvement, give **amoxicillin** 500mg 8 hourly for 5 days. If penicillin allergy, give instead **azithromycin** 500mg daily for 3 days.
- If recurrent, test for HIV ↪ APC.
- If tooth infection or swelling over sinus/around eye, refer same day.

Yes

- If in a malaria area in past 3 months, arrange same day malaria test³. If positive, **malaria** likely, refer same day.
- If patient has a tick bite (small dark brown/black scab) or tick present, **tick bite fever** likely ↪ APC.

Also consider **COVID-19** or **influenza**.

- Manage as **COVID-19** ↪ 4.

No: does patient have fever or body pain?

No: does patient get recurrent headaches that are throbbing, disabling with nausea or light/noise sensitivity, that resolve completely within 72 hours?

Yes

Migraine likely

- Give immediately and then as needed: **paracetamol** 1g 6 hourly or **ibuprofen**⁴ 400mg 8 hourly with food for up to 5 days.
- If nausea, also give **metoclopramide** 10mg 8 hourly up to 3 doses.
- Advise to recognise and treat migraine early, rest in dark, quiet room.
- Advise regular meals, keep hydrated, regular exercise, good sleep hygiene.
- Keep a headache diary to identify triggers like lack of sleep, hunger, stress, caffeine, chocolate, cheese. Avoid if possible.
- Avoid oestrogen-containing contraceptives ↪ APC.
- If ≥ 2 attacks/month, refer/discuss for medication to prevent migraines.

No

- Check BP. If ≥ 140/90 ↪ APC.
- Ask about type and site of pain:

Tightness around head or generalised pressure-like pain

Tension headache likely

- Give **paracetamol** 1g 6 hourly as needed for up to 5 days.
- Assess for stress and anxiety ↪ APC.
- Advise regular exercise.

Constant aching pain, tender neck muscles

Muscular neck pain likely ↪ APC.

Patient > 50 years, pain over temples

Giant cell arteritis likely

- Check ESR.
- Give **paracetamol** 1g 6 hourly for up to 5 days.
- Review next day: if no better and ESR raised, discuss with specialist same day.

Advise to only use analgesia when necessary. Chronic overuse may cause headaches: if using analgesia > 2 days/week for ≥ 3 months, advise to reduce amount used. Headache should improve within 2 months of decreased use.

If diagnosis uncertain or poor response to treatment, discuss/refer.

¹If severe penicillin allergy (previous angioedema, anaphylaxis or urticaria), discuss with doctor. ²If no doctor available, nurse to get telephonic prescription from doctor. ³Test for malaria with parasite slide microscopy or if unavailable, rapid diagnostic test. ⁴Avoid ibuprofen if peptic ulcer, asthma, hypertension, heart failure, kidney disease.

DIARRHOEA

Give urgent attention to the patient presenting with diarrhoea and any of:

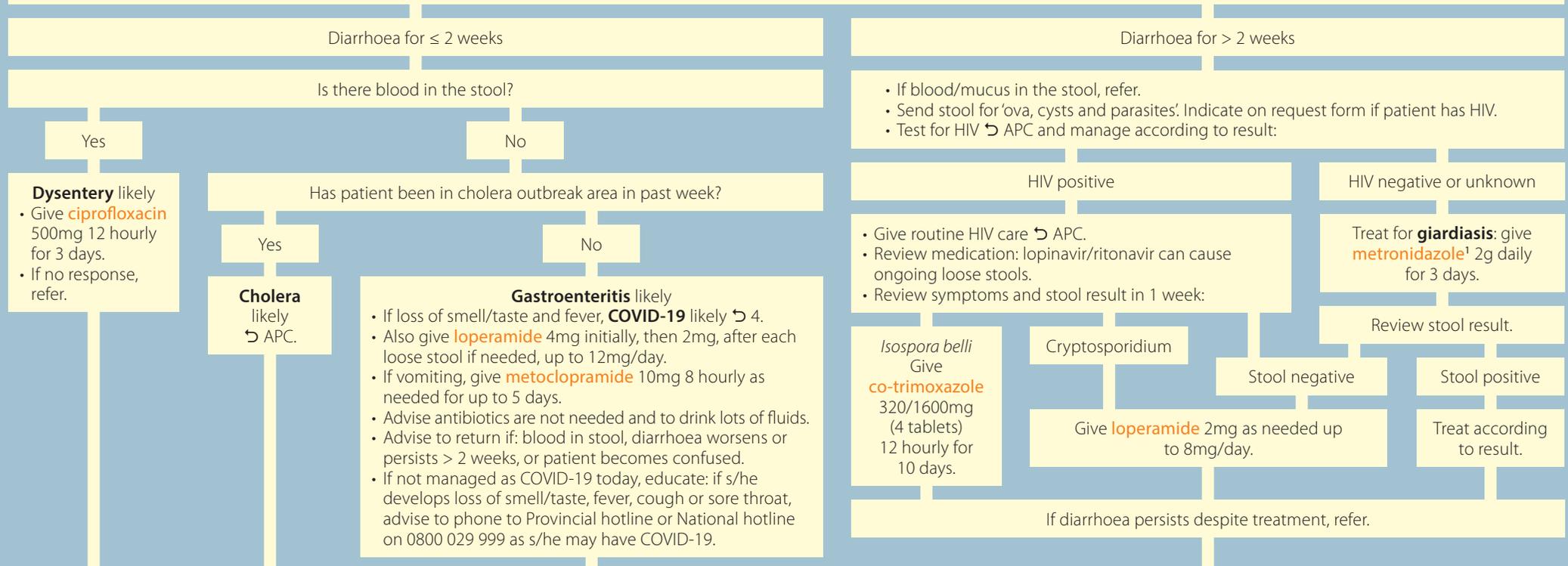
- Thirst, dry mouth, poor skin turgor, sunken eyes, drowsiness/confusion, BP < 90/60, pulse ≥ 100, dehydration likely

Manage and refer urgently:

- Give **oral rehydration solution (ORS)**:
 - Encourage small frequent sips, giving as much as patient can tolerate. Aim for 1-2L in first 2 hours. If vomits, wait 10 minutes and try again more slowly.
 - If no better after 2 hours, give IV fluids as below and refer same day.
- If unable to drink or BP < 90/60, give **sodium chloride 0.9%** 1L IV rapidly, repeat until systolic BP > 90. Continue 1L 6 hourly. Stop if breathing worsens. Refer same day.

Approach to the patient with diarrhoea not needing urgent attention:

Confirm patient has diarrhoea: ≥ 3 loose stools/day. Ask about duration of diarrhoea:



- Advise to increase fluid intake. Advise frequent handwashing, with soap and water, before preparing food/after going to toilet. Wash all surfaces/equipment used in food preparation. Wash and peel all fruit and vegetables. Use only safe/disinfected water for preparing food/drinks/ice. Cook food thoroughly, avoid raw/uncooked food, especially meat and shellfish.
- If repeated episodes of diarrhoea and no access to clean water, refer to health promotion officer/social worker.
- If patient has a life-limiting illness, also give routine palliative care ↳ APC.

¹Advise no alcohol until 24 hours after last dose of metronidazole.

BODY/GENERAL PAIN

- A patient has body/general pain if his/her body aches all over or most of body is painful.
- If pain localised to one area only: if in back, arm/hand, leg, foot, neck → APC.

Approach to the patient with body/general pain

- If fever now or in past 3 days, and in a malaria area in past 3 months, arrange same day malaria test¹. If positive, **malaria** likely, refer same day.
- If tick bite (small dark brown/black scab) or tick present, tick bite fever likely → APC.
- If unintentional weight loss of ≥ 5% of body weight in past 4 weeks → APC.
- Are there any of: cough, blocked/runny nose, sore throat, abdominal pain, nausea/vomiting, diarrhoea, burning urine, headache, fever?

No

Screen for joint problem:

- Ask patient to place hands behind head, then behind back. Bury nails in palm and open hand.
- Press palms together with elbows lifted. Walk. Sit and stand up with arms folded.
- Is patient able to do all actions comfortably?

No

Check joints: are joint/s warm, tender, swollen or have limited movement?

Yes

→APC.

No

- Test for HIV → APC. If low mood, stress or anxiety → APC.
- If patient has experienced recent trauma or abuse → APC.
- Review patient's medication. If on simvastatin and muscle pain/cramps and weakness, reduce simvastatin dose to 10mg daily or discuss with doctor/specialist.
- If patient has a life-limiting illness, also consider giving palliative care → APC.
- Ask about duration of pain:

< 4 weeks

- Give **paracetamol** 1g 6 hourly as needed for up to 5 days.
- Explain that pain does not always mean a disease or cancer, and tests cannot always show the reason for the pain and often are not needed.
- Advise to return if no better after 2 weeks.

≥ 4 weeks

- Give **paracetamol** 1g 6 hourly as needed for up to 5 days. Advise to only use analgesia when necessary and avoid long term regular use.
- Check glucose → APC.
- Check Hb: if < 12 (woman) or < 13 (man) → APC.
- Check ESR, creatinine. If weakness/tiredness, weight gain, low mood, dry skin, constipation or cold intolerance, also check TSH. Review in 2 weeks:
 - If blood results normal, consider fibromyalgia → APC.
 - If blood results abnormal, refer to doctor.

Yes

Yes

- If cough → 9.
- If sore throat → 10.
- If diarrhoea → 13.
- If abdominal pain → APC.
- If nausea or vomiting → APC.
- If burning urine → APC.
- If none of above:

Is body pain recent onset?

Yes

Does patient have headache or fever?

Yes

If neck stiffness, drowsy/confused or purple/red rash, **meningitis** likely →APC.

COVID-19 likely →4.

No

Discuss.

¹Test for malaria with rapid diagnostic test if available, and parasite slide microscopy.

MANAGE THE CLOSE CONTACT WITHOUT COVID-19 SYMPTOMS

A close contact is a person who has had face-to-face contact (within 1 metre) of a COVID-19 person, or has been in a closed environment (like room or vehicle) with a COVID-19 person for at least 15 minutes.

Assess and manage a patient who is a COVID-19 close contact

Before managing a close contact, ensure you are wearing appropriate personal protective equipment ↗ 25. Even if asymptomatic, s/he may still be infectious if s/he was infected during the close contact.

Manage other symptoms and chronic conditions

- Use APC to manage symptoms as on symptom pages.
- If patient has a chronic condition, check that it is well controlled. Use APC to give routine chronic care. Also check if de-escalation of care possible to protect patient from COVID-19 ↗ 16.

Advise the patient who is a COVID-19 close contact

- Patient needs to quarantine him/herself. This means that, in case s/he was infected during the close contact, s/he needs to separate him/herself from others to prevent possible spread of coronavirus.
- Advise to self-monitor for symptoms (like cough, sore throat, changes in taste or smell, fever, fatigue, body aches). Explain red box (below). If symptoms, advise to contact a hotline as below.

Assess if patient is able to safely quarantine at home:

- Is patient able to quarantine in a separate room from others?
- If patient develops symptoms, is s/he able to contact or return to health facility urgently if s/he develops severe symptoms?

Yes to both

No to either

- Discharge to safely quarantine at home.
- Explain how to safely quarantine at home (below).

- Encourage referral for alternate accommodation within an isolation facility. If patient agrees, refer as per local process.
- If unsure, contact Provincial hotline or NICD hotline 0800 11 1131.

Patient may stop quarantine 10 days from date of last contact with COVID-19 person.

Clean and disinfect after patient has left facility ↗ 24.

Advise to call health facility (give number) or Provincial hotline or National hotline on 0800 029 999 or return urgently to health facility if:
Shortness of breath, difficulty breathing, persistent chest pain/pressure, new confusion or worsening drowsiness.

EXPLAIN HOW TO SAFELY ISOLATE OR QUARANTINE AT HOME

If patient is able to safely isolate or quarantine at home, explain how and give patient information leaflet if available:

- Stay in own room and use own bathroom (if possible). Avoid unnecessary contact with others. If contact unavoidable, wear face mask, and if possible keep 1-2m away from others.
- Clean hands with soap and water frequently or use 70% alcohol-based hand sanitiser. Cough/sneeze in to elbow or a tissue. Immediately discard tissue in waste bin and clean hands.
- Clean and disinfect all high-touch surfaces like door handles, tabletops, counters, toilets, phones and light switches using diluted bleach solution (add 6 teaspoons of bleach to 1L of water).
- Avoid sharing household items like dishes, cups, eating utensils and towels. Wash these well after use.
- For laundry: if hand washing, use soap and if possible, hot water. If using washing machine, use highest temperature according to label ($\geq 60^{\circ}\text{C}$) and detergent. Dry well as usual and if possible, iron.
- Dispose of waste carefully: put rubbish bags in second rubbish bag and if possible, store for 5 days, before putting out for collection

PROTECT THE PATIENT WITH A CHRONIC CONDITION FROM COVID-19

- The patient with a chronic condition is at risk of severe coronavirus disease.
 - Emphasise the need to adhere strictly to physical distancing, handwashing and hygiene recommendations.
 - Educate about symptoms of coronavirus and encourage to seek healthcare urgently if s/he develops difficulty breathing.
 - Ensure the patient has the health facility contact details and the referral centre/provincial hotline number.
- **Limit the patient's contact with the health facility: keep visits brief and decrease number of routine visits. If patient stable, move to repeat prescription collection.**
 - If possible, schedule appointments for routine visits.
 - Ensure patient's contact details are up to date: check telephone number and address at each visit and update folder.
- Manage the patient's chronic condition. Review and optimise treatment. **Restart treatment if interrupted.** Ensure adequate medication supply, give 2 months' if possible.
- Give routine care as per APC and adjust usual care as in table below:

	Adjust and review prescribing	Adjust medication supply	Rearrange routine visits	Adjust advice giving
HIV	<ul style="list-style-type: none"> • Try to start ART same day wherever possible, ideally with TLD. • Switch patient on TEE to TLD if possible^{1,2}. • Give influenza vaccine. • Switch the patient failing ART promptly. 	<ul style="list-style-type: none"> • If on TLD, give up to 4 months' supply if your pharmacy has enough stock. • If on TEE, give up to 2 months' supply. • Check that medication delivery process is maintained. 		
TB	<ul style="list-style-type: none"> • If HIV not on ART: start ART at 2 weeks of TB treatment, if tolerating TB treatment. Consider PredART³ if CD4 < 100. • If on linezolid, check fingerprick Hb monthly: if Hb < 8g/dL, do FBC + differential count. If unable to do fingerprick Hb, do FBC + differential count and inform patient of result by phone. 	<ul style="list-style-type: none"> • Do not do clinic DOTS. • Give pillbox if available. • At diagnosis, give medication for 1 month. • At 4-week visit, give monthly supply for remainder of treatment. 	<ul style="list-style-type: none"> • Follow up at 1 week via phone or at facility if patient is unwell or likely to have adherence problems. • Stick to monthly visits. • Screen contacts by phone, especially if elderly or with a chronic condition. Do not bring child contacts to facility for sputums, discuss with specialist instead. 	<ul style="list-style-type: none"> • Counselling session 1 at facility/by phone, session 2 by phone, omit session 3. • Ensure adherence support from family or CHW. • Emphasise infection prevention at home. Give a mask for 1st 2 weeks if DS-TB or until culture conversion if DR-TB.
NCD (Non-Communicable Diseases)	<ul style="list-style-type: none"> • Review and optimise treatment. • Give influenza vaccine if heart disease, stroke, hypertension, diabetes, asthma or COPD⁴. 	Give adequate medication supply: give at least 2 or 3 months' medication based on stock availability.	<ul style="list-style-type: none"> • Do routine bloods only if results likely to change management. Phone with results instead of arranging return visit. • Encourage patients to avoid health facilities where possible –advise patient on symptoms requiring urgent care (next column). 	Ensure patient understands when s/he needs to visit the clinic urgently: <ul style="list-style-type: none"> • If diabetes: if shortness of breath, chest pain; if passing excessive amounts of urine/thirstier than usual; if able to monitor at home and unexplained low or high blood sugar levels, or ketones in urine. • If hypertension: if persistent headache, blurring of vision, dizziness, worsening shortness of breath with activity, new onset chest pain, new weakness or speech problems. • If asthma/COPD: if worsening shortness of breath despite treatment. • If heart problem: if swelling of feet, worsening shortness of breath with activity, dizziness, fainting, new onset or worsening chest pain.
Mental Health	If on clozapine, decrease frequency of FBC + differential count checks from weekly to monthly, or monthly to 2-monthly if stable.	Give adequate medication supply.	Monthly visits if on injectable or clozapine, consider 2-monthly if stable.	Advise the patient on clozapine to return urgently if sore throat or fever, to exclude a clozapine-related neutropenia.

¹TDF/3TC/DTG is also known as TLD. TDF/FTC/EFV is also known as TEE. ²Patient is eligible to switch from TEE to TLD if: VL within last 6 months < 50 copies/mL. Use result of routine annual VL or if last VL done > 6 months ago, repeat VL now (new recommendation), OR patient on ART for more than 1 year and the last two viral loads < 50 copies/mL (even if the last one was up to 12 months ago) and there were regular pharmacy claims over the last year (new recommendation). ³This refers to giving prophylactic prednisone to prevent TB-IRIS (see p45. of WC ART guideline 2020 for eligibility/exclusion/dosing/duration). ⁴Give the patient a flu vaccine if at risk of severe influenza. Follow the order of priority for at-risk groups: health carer workers, > 65 years, CVD, hypertension, diabetes, asthma, COPD, pregnancy, HIV.

Patient Information Tools

Use these pages to explain to a patient how to isolate/quarantine and prevent spread of COVID-19.

I'VE BEEN ADVISED TO ISOLATE OR QUARANTINE MYSELF: WHAT DOES THIS MEAN?

Isolation is when a person with confirmed COVID-19 is separated from others.
Quarantine is when a person who does not have COVID-19 but has been in close contact with someone who has it, is separated from others; or who is awaiting test results.

I've been advised to isolate or quarantine myself: what does this mean?

- COVID-19 is a respiratory illness similar to flu (cough, fever, fatigue & aching body/muscles). More commonly than flu, it can become severe causing viral pneumonia (difficulty breathing).
- 4 out of 5 people will have a mild illness and recover without treatment. The elderly and those with underlying health conditions have increased risk of severe illness.



How does it spread?

- You can pick up COVID-19 from:
- Touching an infected surface or object. The virus can enter your body when you touch your nose, mouth and eyes.
 - Very close contact (1m) with a person infected with COVID-19.

Why do I need to isolate/quarantine myself?

- After being infected with COVID-19, it can take up to 10 days to develop symptoms. During this period and for some time after, the virus may be transmitted to others. Quarantining yourself will help to prevent spread to others.
- You should isolate/quarantine yourself if you have:
 - Symptoms of COVID-19 (isolation) or
 - Had close contact with someone with suspected or confirmed COVID-19 (quarantine)

What should I do if I develop symptoms or my symptoms worsen during isolation/quarantine?

- Contact your health care provider or a hotline number below and follow their advice.
- Rest, drink plenty of fluids and use medications (like paracetamol) as needed to reduce fever or pain.

If you develop shortness of breath, chest pain/pressure, new confusion or worsening drowsiness, call health facility or hotline below or return urgently to health facility.

National Hotline
0800 029 999

National WhatsApp
Send 'Hi' to 060 012 3456

Operating
24 hours a day



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Disclaimer: This information should not be considered as medical advice. It is not a replacement for a visit with a nurse, doctor or other healthcare professional. If you have concerns about your individual medical situation, please see a healthcare professional. This information is provided on an "as is" basis without any warranties regarding accuracy, relevance, usefulness or fitness for purpose. You use this information at your sole risk.

What must I do during isolation/quarantine?



Stay home except to get medical care. Even after lockdown, do not go to work, school, church or any other public areas. Avoid using public transport or taxis. Ask others to do errands.



Cover your mouth and nose with a tissue or your elbow (not your hands) when coughing/sneezing. Immediately discard used tissues and wash your hands.

Avoid contact with other people

as much as possible. Do not receive visitors. If living with others, stay in a specific room and use a separate bathroom if possible. Open windows and doors. If in same room as others, keep at least 1-2m apart.



Clean and disinfect frequently touched objects and surfaces (phones, counters, bedside table, doorknobs, bathroom surfaces). Use 6 teaspoons of bleach in 1L water.



Avoid sharing dishes, drinking glasses, cups, eating utensils, towels, or bedding – after using these, wash them well.

Wash hands often, especially before handling food/after using toilet or coughing/sneezing. Avoid touching face, eyes, nose or mouth.



Wear a face mask when in contact with others.



Wash your hands well

- Use these steps to wash your hands for at least 20 seconds. If no soap and water available, use hand sanitiser instead.
- Roll up your sleeves, rinse hands in clean water and apply soap to palm of hand:



1 Rub palms together.



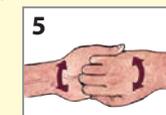
2 Rub tips of nails against palm. Swap hands.



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.

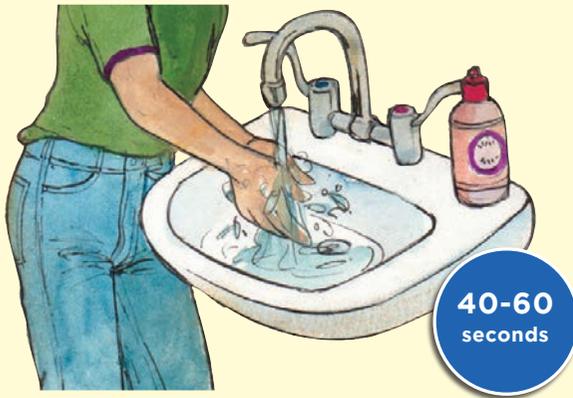
- Rinse your hands with clean water and dry on paper towel or allow to dry on their own.

When can I stop isolation/quarantine?

- If you have COVID-19: you can stop isolation 10 days after the date your symptoms started.
- If you are a close contact: stop quarantine 10 days after last exposure to someone with COVID-19.

RULES OF GOOD HYGIENE TO PREVENT COVID-19

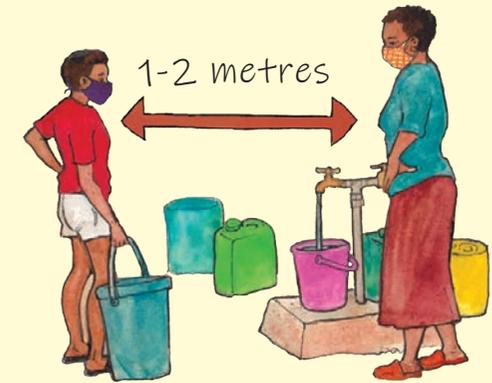
1. Wash hands well.



2. Don't touch your face.



3. Maintain physical distance



4. Cover your cough/sneeze.



5. Wear a clean cloth mask. (if out in public)



6. Sick? Stay home except to get medical care.



CLEAN HANDS WELL

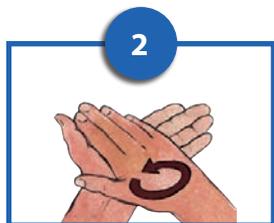
- All staff and patients entering and exiting the facility should clean hands with alcohol-based hand rub provided at entrance/exit.
- Keep nails short and clean. Avoid artificial nails as they do not allow for adequate cleaning/disinfection.
- Wash visibly soiled hands with soap and water, otherwise use alcohol-based hand rub (ABHR).

40-60 seconds

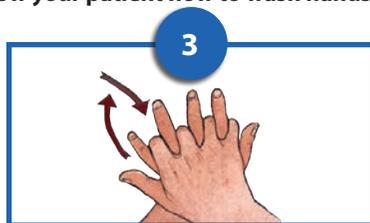
Show your patient how to wash hands:



1
Wet hands in clean water and apply soap to palm.



2
Rub palms together.



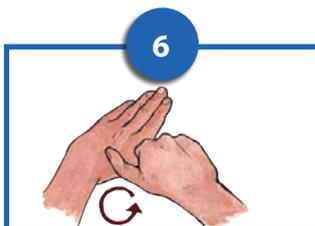
3
Place one hand over back of other, rub between fingers. Swap hands.



4
Rub fingers between each other.



5
Grip fingers and rub together.



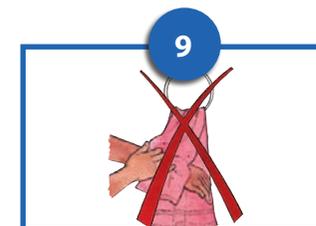
6
Rub each thumb with opposite palm. Swap hands.



7
Rub tips of nails against palm. Swap hands.



8
Rinse hands with water.



- Avoid shared towels.
- Dry using paper towel.
- Use paper towel to turn off tap.

Once dry, your hands are safe.

20 seconds

Show your patient how to hand rub:



- Apply palmful of ABHR to cupped hand.
- Use elbow to dispense where able.



2
Rub tips of nails against palm. Swap hands.



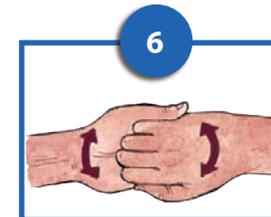
3
Rub palms together.



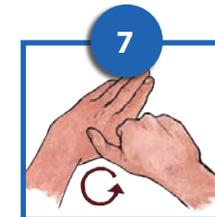
4
Place one hand over back of other, rub between fingers. Swap hands.



5
Rub fingers between each other.



6
Grip fingers and rub together.



7
Rub each thumb with opposite

Once dry, your hands are safe.

Safe practices for health workers

SAFE PRACTICES FOR HEALTH WORKERS

- Keep yourself, your colleagues, your patients and your family safe from COVID-19 by practising safely using these steps:
- This section applies to all clinical staff (such as nursing assistants, nurses, doctors, occupational therapists, physiotherapists, dentists, oral hygienists, radiographers).

1. Monitor yourself for COVID-19 symptoms

- If unwell, stay home and inform your supervisor. If anyone at home with suspected or confirmed COVID-19, inform your supervisor.
- Complete a COVID-19 symptom screen at beginning and end of each shift.

5 moments for hand hygiene:

1. Before touching a patient
2. Before doing a procedure
3. After exposure to body fluids
4. After touching a patient
5. After touching patient surroundings

2. Practise good hand hygiene

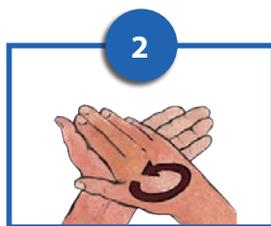
- All staff and patients entering and exiting the facility should clean hands with alcohol-based hand rub provided at entrance/exit.
- Keep nails short and clean. Avoid artificial nails as they do not allow for adequate cleaning/disinfection.
- Wash visibly soiled hands with soap and water (see below), otherwise use alcohol-based hand rub (ABHR) ↪ 23.

40-60
seconds

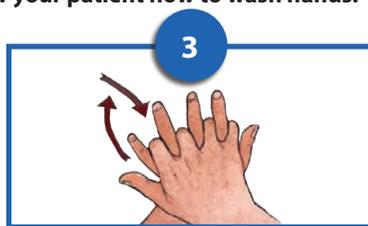
Show your patient how to wash hands:



1
Wet hands in clean water and apply soap to palm.



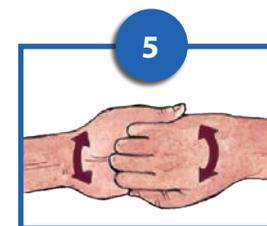
2
Rub palms together.



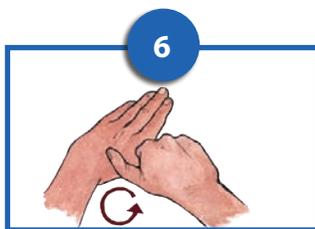
3
Place one hand over back of other, rub between fingers. Swap hands.



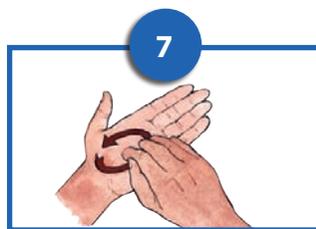
4
Rub fingers between each other.



5
Grip fingers and rub together.



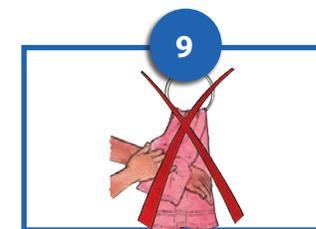
6
Rub each thumb with opposite palm. Swap hands.



7
Rub tips of nails against palm. Swap hands.



8
Rinse hands with water.

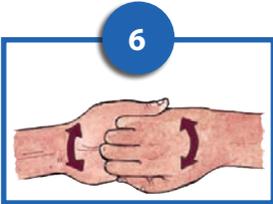


- Avoid shared towels.
- Dry using paper towel.
- Use paper towel to turn off tap.

Once dry, your hands are safe.

20 seconds

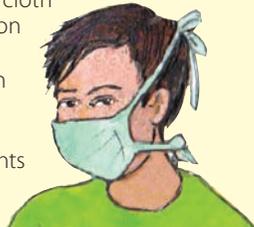
Show your patient how to hand rub:

- 
 - Apply palmful of ABHR to cupped hand.
 - Use elbow to dispense where able.
- 
 - Rub tips of nails against palm.
 - Swap hands.
- 
 - Rub palms together.
- 
 - Place one hand over back of other, rub between fingers.
 - Swap hands.
- 
 - Rub fingers between each other.
- 
 - Grip fingers and rub together.
- 
 - Rub each thumb with opposite

Once dry, your hands are safe.

3. Practise good respiratory hygiene

- Wear a surgical mask, N95 respirator or cloth mask according to your task and location in facility.
- Provide a surgical mask to patients with respiratory symptoms or suspected/confirmed COVID-19.
- If available, provide a cloth mask to patients without respiratory symptoms if they don't have their own.



- Cover mouth and nose with a tissue or elbow (not hands) when coughing or sneezing. If using a tissue, discard immediately and wash hands.



- Perform hand hygiene if contact with respiratory secretions.



- Avoid touching your face, eyes, nose and mouth with unwashed hands.



Who should wear a cloth mask?

- All staff working in non-clinical areas (like administration, finance, canteen).
- All patients without respiratory symptoms or suspected/confirmed COVID-19.

DO



- Wash hands before use.
- Ensure mask covers mouth and nose.
- Replace mask if wet. Put it in a container until you can wash it.



- Only touch straps to remove it.
- Wash hands immediately after removing it.



- Wash masks with soap and warm water.
- If possible, iron once dry to disinfect mask.
- Have at least 2 masks so that you have a clean one ready.

DON'T

- Touch your face or fiddle with mask.



- Ever use someone else's mask. If you don't have a mask, use a scarf or bandana.



- Leave used masks lying around.



- Let the mask slip or pull it down so that your nose or mouth is exposed.



4. Maintain physical distancing

- Avoid shaking hands, hugging, kissing, high fives. Greet instead with a smile, nod or wave.



- Keep a distance of at least 1-2 metres from colleagues and patients whenever possible.



- Avoid sharing work surfaces, desks and equipment with other staff if possible.

Administrative staff:

- Work from home if possible.
- Ensure desks are at least 1-2 metres apart.
- Use perspex screens between clerks and patients if possible.
- Avoid unnecessary meetings. If needed, ensure staff maintain physical distancing during meeting.



5. Practise good environmental infection control

Clean and disinfect patient areas regularly:

- First clean with detergent (soap) and water, and wipe with rinsed cloth. Then wipe with disinfectant like sodium hypochlorite 0.1% (use 0.5% if blood or body fluids) or 70% alcohol and allow to air dry.
- Frequency of cleaning will depend on area in facility:
 - High risk areas (triage, testing areas, isolations wards and COVID-19 areas): at least three times a day. Disinfect chairs and testing booths between each patient.
 - Low-risk areas: at least twice a day.
 - High-touch surfaces (tables, desks, phones, keyboards, mouse, door handles, light switches, taps): disinfect before starting work and the last thing before leaving your work station.
 - The "patient zone" (bed rails, bedside cabinet, trolley, equipment): disinfect between each patient. If visibly dirty, clean first.



- Avoid touching surfaces unless necessary.
- Use feet or hips to open doors instead of using door handles.



- Ensure adequate ventilation by keeping windows and doors open where possible.



- If possible, use disposable or dedicated equipment (like stethoscopes, blood pressure cuffs, thermometers, saturation monitors).
- If sharing equipment between patients, 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.
- For examination beds, change linen and/or linen saver between each patient. If patient with suspected or confirmed COVID-19, send linen to laundry marked as infectious.



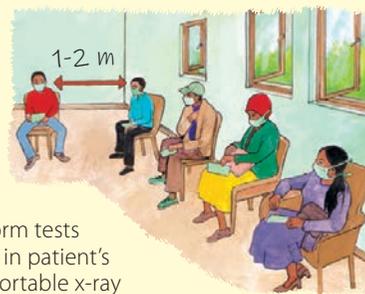
6. Manage patient flow within facility

- Ensure only one entrance and exit to facility available for patients.
- Have a separate, well-ventilated triage area near facility entrance for all patients.



- If suspected COVID-19, isolate patient in separate area allocated for patients with suspected COVID-19.
- If not suspected with COVID-19, send patient to standard waiting area.
- Establish separate routes to each area and indicate these clearly with colour-coded arrows and signs.

- Ensure patients queue and sit at least 1-2 metres apart.



- 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 surgical mask if needing to move through facility.

- Limit people in contact with patient, including health workers.
- Avoid visitors.



- Only one escort to accompany a patient and only if patient needs assistance.



- If possible, implement an appointment system. Only allow patients to enter facility at appointment time.
- Increase time between patients' follow-up visits and avoid unnecessary visits.

7. 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. Follow your facility protocols but ensure you are wearing the minimum PPE as below:

Low risk areas:
Triaging or screening patients:

Clinical areas:

- Surgical mask

Non-clinical areas:

- Cloth mask



High risk areas:
Managing a patient with suspected or confirmed COVID-19:

- Surgical mask
- Goggles or visor
- Plastic apron
- Non-sterile gloves



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

- Respirator
- Goggles or visor
- Fluid-resistant gown or apron
- Non-sterile gloves



Change or clean your PPE when needed:

- Change gloves between each patient.
- Change apron/gown between each patient or if short supply, change only if wet, dirty, damaged or after performing aerosol-generating procedure.
- Clean and disinfect goggles/visor after removing.
- If using **surgical mask**:
 - If needing to remove mask to eat/drink: carefully remove without touching the outside, and store in a clearly labelled, clean paper bag. Perform hand hygiene after removing and after putting it on again.
 - Discard after your work shift, or sooner if touched by unwashed hands or gets wet/dirty/damaged.
- If using **respirator**:
 - It may be reused for up to 1 week because of current supply shortage.
 - If reusing respirator:
 - Perform seal test before each use: breathe in and out. Mask should move in and out with each breath (air should not leak).
 - Between uses, store in a clearly labelled, clean paper bag. Avoid crushing, bending or trying to disinfect respirator.
 - When replacing, wear gloves and avoid touching inside of respirator.
 - Discard after 1 week of use, or sooner if it gets wet/dirty/damaged or seal test fails.

¹Aerosol-generating procedures include: collecting respiratory specimens (naso- or oropharyngeal swabs), chest physiotherapy, nebulisers, sputum induction, endotracheal intubation. Avoid nebulisers and sputum induction if suspected/confirmed COVID-19.

How to put on PPE correctly (donning)

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



See a video on how to put on PPE correctly here: www.medicine.uct.ac.za/news/covid-19-resources



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 apron/gown

- 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 (air should not leak).
- If reusing N95 respirator, put on clean non-sterile gloves before replacing it. Once on face, remove gloves, clean hands and continue to step 4.



4 Put on goggles/visor

- Place over face and adjust to fit.



5 Put on gloves

- Extend gloves to cover wrists/end of gown.



How to remove PPE correctly (doffing)

- 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.



See a video on how to remove PPE correctly here: www.medicine.uct.ac.za/news/covid-19-resources

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.



Clean hands for at least 20 seconds

2 Remove apron/gown

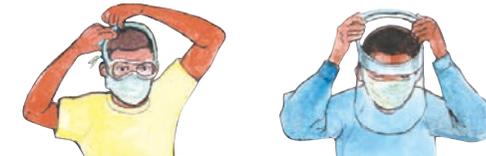
- If wearing a visor (not goggles), remove visor as below *before* removing gown/apron.
- Unfasten gown/apron ties. Ensure sleeves don't touch body when doing this.
- If gown: pull gown away from neck and shoulders, touching only inside of gown. Turn gown inside out.
- If apron: pull over head and roll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



Clean hands for at least 20 seconds

3 Remove goggles/visor

- Remove goggles/visor from back by lifting head band or ear pieces.
- Discard in medical waste bin.



Clean hands for at least 20 seconds

4 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.



5 Clean hands for at least 20 seconds

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



8. What to do before work



Clothes

- Wear simple, short-sleeved clothing that can be easily washed.
- Wear dedicated closed work shoes.
- Avoid wearing a belt, jewellery, watch and lanyard.



Wallet and keys

- Leave wallet at home – bring only essentials (like access card, drivers licence, bank card) in sealable plastic bag.
- Keep your keys in your pocket/bag and do not remove until after you have washed hands when leaving work.

Phone

- Remove protective case from phone. Keep phone in sealable plastic bag and change this daily.
- Keep your phone in your pocket/bag, avoid placing it on work surfaces.
- Wipe phone/bag with alcohol frequently.



Food and drink

- Bring lunch from home in plastic or washable fabric shopping bag.
- Use own water bottle and avoid sharing food/drinks.

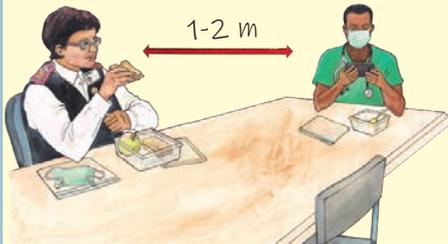


Wash hands before leaving home



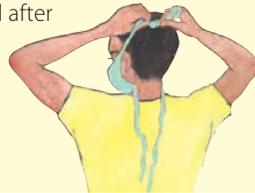
9. How to take a break safely

- Stagger breaks to avoid crowded tearooms. Take break outside if possible.
- Remove all PPE before entering tea room.
- Keep 1-2m apart from colleagues.



When removing mask/respirator to eat or drink:

- Remove carefully without touching the outside.
- Store in clearly labelled, clean paper bag.
- Put mask back on as soon as finished eating or drinking.
- Wash hands well after removing mask and after putting it back on.



- Avoid sharing food and drink.
- Avoid bought lunches and drinks from canteen.
- Avoid water coolers.



- Wash hands well before eating or drinking. Disinfect phone.

- Avoid sharing towels. Use paper towel instead.



- Keep windows and doors open. Report windows that don't open.



- Avoid sharing cups, bottles, cans, dishes, eating utensils – wash these well after use.



- Clean and disinfect frequently touched objects (like kettle, toaster, microwave, counters, door handles, window handles) regularly.



10. What to do after work

When leaving work

- Disinfect phone/bag, stethoscope and pen regularly and again before leaving. Leave pen at work.
- If possible, remove work clothes and place in plastic or washable fabric bag to take home.
- Perform thorough hand and arm wash.
- Ensure used masks, gowns and aprons are discarded in designated waste bins.



Step 1

- Remove shoes and leave outside, or just inside door, before entering home.
- Clean upper part of shoes with hand sanitiser. Avoid touching soles of shoes.



Step 4

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

When arriving home:

Step 2

- As you enter, remove cloth mask. Only touch straps to remove it.
- Then remove work clothes if not already changed.
- Put mask and work clothes straight into a hot wash or bucket with hot water and soap, along with fabric bags used for lunch and clothes.



Step 3

- Thoroughly wash hands and arms.



Step 5

- Dry cloth mask and work clothes in the sun or tumble dryer.
- Iron to disinfect.



11. How to travel safely using public or staff transport



- Wear a cloth mask while travelling.
- Avoid wearing work clothes if possible. Rather change into work clothes after arriving at work.

- Ensure all windows are kept open.



- When waiting in the queue, stand 1,5 metres away from other passengers.

1.5 m

- Avoid touching door handles, rails, windows and other surfaces.
- Sit as far from other passengers as possible.



- Clean hands with hand sanitiser before entering and after exiting the vehicle.



12. Look after your mental health

- Get enough sleep.



- Talk to family, friends and colleagues.



- Find a creative or fun activity to do.



- Do a relaxing breathing exercise each day.



- Exercise regularly.



- Limit alcohol and avoid drugs.



- Seek help if you are struggling:
- Mental Health helpline: 0800 12 13 14



MANAGE THE HEALTH WORKER EXPOSED TO A PERSON WITH SUSPECTED OR CONFIRMED COVID-19

The health worker has had potential exposure to COVID-19 if s/he has had any contact with:

- A person with suspected COVID-19 who is waiting for test result or
- A person with confirmed COVID-19: this is a person with a positive COVID-19 test result. If a person with COVID-19 symptoms did not qualify for a test, manage exposure as for confirmed COVID-19.

First check if the health worker has new onset in the last 14 days of symptoms suggestive of COVID-19:

- Shortness of breath or difficulty breathing
- Cough
- Sore throat
- Loss of sense of smell or change in sense of taste
- If known with asthma or COPD with chronic symptoms: worsening cough or breathing

Yes to any

Health worker may have COVID-19

- Give a medical mask to wear.
- Continue to assess and manage the health worker as a person with suspected COVID-19 →4.

No to all

During contact, was health worker wearing appropriate PPE?
If unsure → 25.

No

Establish the type of exposure health worker has had to person with suspected/confirmed COVID-19:

- Contact within 1 metre for ≥ 15 minutes with person
- Direct physical contact with person
- Direct contact with secretions of person
- Performed aerosol-generating procedure¹ on person
- Was in same room when an aerosol-generating procedure¹ was performed on person

Yes to any

Health worker has had **high risk exposure.**

No to all

Has health worker had any contact within 1 metre < 15 minutes with patient

Yes

Health worker has had **low risk exposure.**

Assess risk and manage according to type of contact:

- If health worker had exposure to a patient with suspected COVID-19 →31.
- If health worker had exposure to a patient with confirmed COVID-19 →32.

Yes

Health worker has had **minimal risk exposure.**

- Reassure health worker they are at minimal risk.
- Advise to continue working and to monitor him/herself for COVID-19 symptoms daily before work.
- Ensure health worker knows how to use PPE correctly → 25.

¹Aerosol-generating procedures include: collecting respiratory specimens (naso- or oropharyngeal swabs), chest physiotherapy, nebulisers, sputum induction, endotracheal intubation. Avoid nebulisers and sputum induction if suspected/confirmed COVID-19.

The asymptomatic health worker exposed to a patient with suspected COVID-19

What type of exposure did the health worker have with the patient with suspected COVID-19 as determined on previous page?

High risk exposure

- Advise to quarantine and give information leaflet.
- Advise to monitor for COVID-19 symptoms.
- Follow up the COVID-19 test results of person with suspected COVID-19:

Negative

- Advise to:
- Resume normal work activities.
 - Ensure strict mask use and hand hygiene.

Reassure health worker that s/he is unlikely to have COVID-19.

Positive

- Continue quarantine.
- Advise to continue to monitor for symptoms for 7 days:

If no symptoms develop within 7 days¹: test on day 7 post-exposure.

If symptoms develop within 7 days: test early.

Health worker has **COVID-19** Provide medical mask, isolate and manage →4.

COVID-19 test not done

Test health worker for COVID-19:

Health worker positive

Health worker negative

- Advise to:
- Resume normal work activities when well enough.
 - Continue strict mask use and hand hygiene.

Low risk exposure

- Advise to:
 - Continue working but preferably low risk transmission activities.
 - Wear a mask.
 - Continue strict hand hygiene
- Advise to monitor for COVID-19 symptoms.
- Follow up the COVID-19 test results of person with suspected COVID-19 :

COVID-19 test not done

- Advise to:
- Continue to monitor symptoms until 10 days after exposure.
 - Continue working but preferably low risk transmission activities.
 - Continue strict mask use and hand hygiene.

Symptoms develop within 10 days

No symptoms develop within 10 days

Positive

Advise to continue strict mask use and hand hygiene.

Negative

Advise to resume normal work activities.

- Ensure the cause of the health worker's exposure is known and reported appropriately in order to improve infection control procedures in facility.
- Advise health worker to monitor him/herself for COVID-19 symptoms daily before coming to work. If symptom/s develop, stay home and inform supervisor.
- Ensure health worker knows how to use PPE correctly ↪ 25.
- Manage occupational stress ↪ APC.

¹If health worker agrees, s/he can test on day 5 post-exposure and if negative, and still no symptoms, may return to work.

The asymptomatic health worker exposed to a patient with confirmed COVID-19

What type of exposure did the health worker have with the confirmed COVID-19 person as determined on page 30?

High risk exposure

- Advise to: Quarantine and give information leaflet.
 - Wear a mask.
 - Continue strict hand hygiene.
- Advise to monitor for COVID-19 symptoms for 7 days after exposure:

If no symptoms develop within 7 days¹:
test on day 7 post-exposure.

If symptoms develop within 7 days:
test early.

Test health worker for COVID-19:

Health worker tests positive

Health worker has COVID-19
Provide mask, isolate and manage →4.

Low risk exposure

- Advise to: Continue working but preferably low risk transmission activities.
 - Wear a mask.
 - Continue strict hand hygiene.
- Advise to monitor for COVID-19 symptoms until 10 days after exposure:

Symptoms develop within 10 days

No symptoms develop within 10 days

Advise to resume normal work activities.

Health worker tests negative

Advise to:

- Resume normal working activities when well enough.
- Continue strict mask use and hand hygiene.

- Ensure the cause of the health worker's exposure is known and reported appropriately in order to improve infection control procedures in facility.
- Advise health worker to monitor him/herself for COVID-19 symptoms daily before coming to work. If symptom/s develop, stay home and inform supervisor.
- Ensure health worker knows how to use PPE correctly → 25.
- Manage occupational stress → APC.

PROVIDE PALLIATIVE CARE TO THE COVID-19 PATIENT

- A doctor or palliative care team will down-refer a patient to receive palliative care at a primary health care/home level.
- When assessing and providing palliative care to a COVID-19 patient, ensure that you are wearing appropriate PPE: gown/apron, surgical mask, goggles/visor and gloves.

Assess the COVID-19 patient needing palliative care

Assess	Note
Symptoms	<ul style="list-style-type: none"> • If fever, shortness of breath, anxiety/restlessness, nausea/vomiting, constipation, diarrhoea, abdominal cramps or itchiness manage ↪ 35. • If dry mouth or oral candida ↪ APC. • Manage other symptoms as on relevant symptom pages ↪ APC.
Pain	<ul style="list-style-type: none"> • If pain, ask where the pain is and when the pain started. Does pain radiate anywhere? • Ask patient to grade pain on a scale from 0-10, with 0 being no pain and 10 being the worst pain: classify pain as mild (1-3), moderate (4-7) or severe (8-10). Manage pain depending on severity ↪ 35.
Side effects	<ul style="list-style-type: none"> • Ask about and manage side effects from medication ↪ 35. • If on morphine, advise that nausea, confusion and sleepiness usually resolve after a few days. Check that patient is using regular laxative.
Chronic care	<ul style="list-style-type: none"> • Check that the patient understands why s/he is receiving palliative care. • Assess ongoing need for chronic care in discussion with patient and health care team. Consider which medication/s could be discontinued.
Psychological well-being	Ask patient and family how they are feeling. Advise as below and arrange emotional support or counselling as available.
Carer/dependents	<ul style="list-style-type: none"> • Check that carer understands how to safely care for the patient to reduce his/her risk of contracting COVID-19. Check that s/he can access the necessary protection and cleaning products. • Ask how the carer is coping and what support s/he needs now and in the future. If needed, refer patient's dependents and family members to social worker.
Dying	If patient is deteriorating and 2 or more of: bedridden, decreased consciousness, only able to take sips of fluid or unable to take tablets, consider providing end-of-life care ↪ 36.
Pressure ulcers	If bedridden or in wheelchair, check common areas daily for damaged skin (change of colour) and pressure ulcers (see picture). If pressure ulcer, manage ↪ APC.



Advise the COVID-19 patient needing palliative care and his/her family

- Start by checking the patient/family understanding of the situation and ask what they have been told before. This can help move the conversation forward.
- Explain the condition and prognosis to the patient and his/her family. Be compassionate, but also honest and direct. Explaining what is happening relieves fear and anxiety.
- Check that family understands why the patient is receiving palliative care. If patient is not eligible for critical care, address any concerns and questions the family may have about this.
- Ask how the family is coping and what support they need. If needed, refer to social worker, counsellor, spiritual counsellor as available. Deal with bereavement issues ↪ APC.
- Discuss the plan for caring for the patient. Advise whom to contact when pain or other symptoms get severe. Discuss advance-care plans and preferences with family. Document decisions.
- Ensure family understand that they will need to quarantine for 10 days from the last time they had contact with the patient. Provide information on how to do this and give information leaflet

Advise what home care is needed for the COVID-19 patient needing palliative care

- Encourage the patient to do as much self-care as able.
- Encourage mouth care: patient to brush teeth and tongue regularly using toothpaste or dilute bicarbonate of soda. If able, advise to rinse mouth with ½ teaspoon of salt in 1 cup of water after eating and at night
- Offer small meals frequently, allow the patient to choose what s/he wants to eat from what is available and encourage fluid intake. The patient's appetite will get less as s/he gets sicker.
- If patient has pain, it is important to give pain medication regularly (not as needed), and if using tramadol or morphine to use a laxative daily to prevent constipation.
- If bedridden or in wheelchair:
 - Prevent pressure ulcers: wash and dry skin daily. Ensure linen is clean and dry. Move/turn patient every 1-2 hours if unable to shift own weight. Lift the patient, avoid dragging.
 - Prevent contractures: at least twice a day, gently bend and straighten joints as far as they go. Avoid causing pain. Gently massage muscles.
- Learn to recognise signs of deterioration and impending death: s/he may be less responsive, become cold, sleep a lot, have irregular breathing, and will lose interest in eating.

Treat the COVID-19 patient needing palliative care

- If **fever**:
 - Give **paracetamol** 1g orally 6 hourly as needed.
- If **shortness of breath**:
 - Advise to place patient in high supported sitting position by propping up with pillows/cushions.
 - Ensure other symptoms (like fever and pain) are well controlled.
 - Explain to patient how to do breathing exercises if s/he is able:
 - Advise to relax his/her shoulders, place hand on abdomen, and breathe from abdomen up in to chest, while feeling this with hand. Then lean forward, purse lips and slowly breathe out.
 - Repeat several times until breathing slows.
 - Encourage regular change in position every 2 hours if able – back, one side, other side and, if able to tolerate, on stomach with head to side.
 - If shortness of breath no better with above:
 - Give **morphine hydrochloride** (mist morphine) 2.5-5mg orally 4 hourly. If unable to swallow, slowly dribble mist morphine in to side of patient's mouth. Note that amount of morphine solution will vary depending on the strength: if 5mg/5mL: give 2.5-5mL. If 10mg/1mL: give 0.25-0.5mL. If 20mg/5mL: give 0.6-1.25mL.
- If **pain**:
 - Manage causes of discomfort such as constipation, nausea, thirst. Ensure patient is in a comfortable position.
 - Start pain medication based on severity of pain. Aim to have patient pain free at rest and able to sleep:
 - If **mild** (1-3) pain, start at step 1. If **moderate** (4-7) or **severe** (8-10) pain start at step 2. If unsure, start at lower step and increase pain medication if needed
 - If pain controlled, continue same dose. If pain persists or worsens, increase dose to maximum. If still no better, move to next step.

Step	Pain medication	Start dose	Maximum dose	Note
Step 1 Give:	Paracetamol	1g 6 hourly	4g daily	If starting, give paracetamol 1g orally and reassess pain after 4 hours. If no better or already on paracetamol for fever, add step 2.
Step 2 Add to step 1:	Tramadol	50mg 6 hourly	400mg daily	Also give lactulose 10-20 mL orally once daily as needed for constipation. If needed increase to 12 hourly.
Step 3 Stop tramadol, continue paracetamol and add:	Morphine hydrochloride (mist morphine)	<ul style="list-style-type: none"> • 5-10mg 4 hourly orally • If ≥ 65 years: start 2.5-5mg orally 	<ul style="list-style-type: none"> • No maximum - titrate against pain. • If sedated/confused, respiratory rate < 12, skip 1 dose, then halve usual doses. 	<ul style="list-style-type: none"> • Also give lactulose 10-20mL orally daily to prevent constipation. Avoid if diarrhoea. • Also give metoclopramide 10 mg orally 8 hourly as needed and haloperidol 1.5mg orally at night for 1 week. • If constipation, nausea or itchiness, manage as below. • If breakthrough pain (pain that occurs before next scheduled dose): <ul style="list-style-type: none"> - Give one extra dose morphine, then continue regular dose at scheduled times for the rest of that day. - Increase morphine doses the next day. Calculate new dose: add up total amount of extra morphine given in last 24 hours. Divide this amount by 6 and add this to each regular 4 hourly dose¹.

- Manage other symptoms and side effects:

Anxiety/restlessness

- Consider polypharmacy: check medication/s and discontinue all non-essential medication.
- Manage causes of discomfort such as constipation, pain, nausea, thirst. Ensure patient is in a comfortable position.
- Give **diazepam** 2.5–5mg orally daily.

Nausea

- Encourage frequent small sips of fluids like water, tea, juice or ginger drinks.
- Give **metoclopramide** 10mg orally 8 hourly as needed.

Constipation

- Give **sennosides A and B** 13.5mg at night and/or **lactulose** 10-20mL orally daily.
- If needed, increase **sennosides A and B** to 27mg at night and/or increase **lactulose** to 12 hourly.

Diarrhoea

- Give **loperamide** 4mg initially, then 2mg after each loose stool up to 6 hourly.

Abdominal cramps

- Give **hyoscine butylbromide** 10mg 6 hourly as needed for up to 3 days.

Generalised itchiness

- Give **chlorphenamine** 4mg 6-8 hourly as needed.

¹Example: patient on morphine 10mg orally 4 hourly has 3 episodes of breakthrough pain: 10mg x 3 = 30mg (total extra morphine); 30mg ÷ 6 = 5mg. Add 5mg to each 10mg regular dose: increase morphine to 15mg orally 4 hourly.

PROVIDE END-OF-LIFE CARE TO THE DYING COVID-19 PATIENT

The patient is dying if s/he is deteriorating and has ≥ 2 of: bedridden, decreased consciousness, only able to sip fluid or unable to take tablets. A doctor should confirm this.

Assess the dying COVID-19 patient's needs regularly

Assess	Note
Symptoms	Assess for pain, noisy breathing, anxiety/restlessness and treat as below.
Current care	<ul style="list-style-type: none"> Assess current medication and stop any that are non-essential (like vitamins). If unable to swallow, consider switching medication route from orally to subcutaneous.
Intake	If patient is able to swallow, ensure patient receives sips of water and food as wanted for comfort.
Psychological well-being	<ul style="list-style-type: none"> Ensure patient and family understand what is happening. Ask how family are coping and what support and/or spiritual care is needed.
Mouth	Ensure patient's mouth is moist and clean. Consider using glycerine to keep lips/mouth moist.
Personal hygiene	Check skin care, clean eyes and change clothing according to patient's needs.

Advise the dying COVID-19 patient and his/her family

- Start by checking the patient/family understanding of the situation and ask what they have been told before. This will help move the conversation forward.
- Ensure patient and family receive full explanation and express understanding of current plan of care. Identify and document any concerns.
- Discuss patient's wishes, feelings, faith, beliefs and values. Discuss patient's needs now, at death and after death. Listen and respond to patient and family's worries/fears.
- Ensure that the family are able to manage the patient and also practise infection control measures at home.
- Ensure family knows that everyone in the household will need to quarantine for 10 days after last contact with patient and give information leaflet.

Treat the dying COVID-19 dying patient

- Ensure the patient's symptoms are managed:
 - If already on **morphine** continue and increase dose by 25%.
 - If not already on morphine, give **morphine** \curvearrowright 35.
 - Also provide additional breakthrough dosages as needed: give extra dose orally every hour.
- If fever, give **paracetamol** 1g 6 hourly as needed.
- If anxiety/restlessness, manage \curvearrowright 35.

Manage the COVID-19 patient after death

- Diagnose death if no carotid (neck) pulse for 2 minutes *and* no heart sounds for 2 minutes *and* no breath sounds or chest movement for 2 minutes *and* pupils are fixed, dilated and do not respond to light.
- Ensure family receive emotional support following the patient's death and refer to counsellor as available.
- Ensure the deceased patient's body is safely removed from your facility \curvearrowright 37 and that relevant notifications are completed \curvearrowright 38.

SAFELY HANDLE THE BODY OF A DECEASED COVID-19 PATIENT

Safely remove the body of a DOA (dead on arrival) patient from your health care facility

- Check if the deceased patient has had a clinical history consistent with COVID-19: if yes, and s/he did not have a COVID-19 test, ensure a postmortem swab is taken for SARS-CoV-2 testing.
- Safely manage the deceased patient's body as below.

Follow these steps to safely remove the body of a deceased COVID-19 patient from your ward/casualty

- There is no need to contact Forensic Pathology (FPS) services for a natural death from COVID-19. For an unnatural death in a COVID-19 positive patient, FPS will need to be consulted.
- Ensure the undertaker/mortuary worker/FPS is aware that the deceased patient is a suspected or confirmed COVID-19 case.
- Have ready:
 - Disinfectant: at least 70% alcohol or 0.1% bleach (sodium hypochlorite) solution.
 - Red medical hazard waste bin in close proximity for safe disposal of PPE.

- 1 Perform hand hygiene and safely put on PPE: gown, waterproof apron, surgical mask, goggles/visor and non-sterile gloves.
- 2 Remove IV lines or other disposable medical equipment and dispose in red medical waste bin.
- 3 Wrap the body in a shroud and send to mortuary or holding area. Ensure that the trolley is wiped down with alcohol or bleach solution prior to leaving the ward/casualty.
- 4 Remove linen from bed, place into linen bag and mark as infectious. Ensure this is transferred to the laundry as soon as possible.
- 5 Clean the patient's bed and anything else the patient was in contact with using detergent and water. Then disinfect using alcohol or bleach solution.
- 6 Safely remove PPE and place disposable items in red medical hazard waste bin.
- 7 Perform thorough hand hygiene.

Safely remove the body from your health care facility

- Ensure the undertaker/mortuary worker/FPS is aware that the deceased patient is a suspected or confirmed COVID-19 case.
- When a deceased patient's body leaves the mortuary/facility premises, it should be contained within a single body bag (preferably with a transparent window for viewing).

COMPLETE A DEATH NOTIFICATION FOR THE DECEASED COVID-19 PATIENT

- A doctor must examine the patient's body and verify his/her death.
- For natural deaths, the same doctor must then complete:
 - Death notification (form DHA-1663 A and B): section A (particulars of the deceased), section B (certificate by attending medical practitioner/ professional comments), and section G (medical certificate of cause of death)
 - Death summary report for all COVID-19 related deaths in the Western Cape
- It is important to record and report deaths due to COVID-19 in a uniform way. Use the following explanations to complete relevant sections correctly:

A. PARTICULARS OF THE DECEASED
Instructions: Section A to be filled out by **Authorised Medical Practitioner / Professional Nurse**, who is responsible for examining the body to determine the cause of death. The **Informant** must verify, and where necessary, complete in full the personal particulars and other information of the deceased below.

1. Was this a death or a still birth? 1.1 Death 1.2 Still birth

2. Identification of the deceased (tick one box):

2.1 The deceased was identified with an ID document / passport (if foreigner) produced by the family

2.2 Still born child

2.3 The features of the deceased do not seem to match the features on the ID document or passport of deceased

2.4 ID document or passport of the deceased was not presented. The deceased was identified through word of mouth

2.5 The deceased was already buried prior to the completion of this form

2.6 The deceased was unidentifiable: 2.6.1 Burnt 2.6.2 Decomposed 2.6.3 Other (specify) _____

2.6.4 DNA samples retrieved for identification purposes 2.6.5 Dental records taken for identification purposes

3. Date of Death / still birth

Y	Y	Y	Y	M	M	D	D
---	---	---	---	---	---	---	---

4.1 Place of Death/still birth (City/Town/Village)

4.2 Province of Death/still birth

5. Place of Registration of Death / still birth

6. If death occurred within 24 hours after birth, number of hours alive _____

7. Home telephone no. _____

8. Identity No. (Passport No. if foreigner) _____

9. Age at last birthday if DOB is unknown _____

10. Date of Birth if there is no ID number

Y	Y	Y	Y	M	M	D	D
---	---	---	---	---	---	---	---

11. Gender 11.1 Male 11.2 Female 11.3 Indeterminable

12. Surname _____

13. Previous / Maiden Surname _____

14. Forenames _____

15. Usual Residential Address: Street _____
 Town _____
 Province _____ Postal code _____

16. Citizenship _____

16.1 Place of Birth (City / Town / Village) or Country of Birth, if abroad _____

16.2 Province of Birth _____

17. Marital Status of the deceased 17.1 Single 17.2 Married 17.3 Widowed 17.4 Divorced

18. Education level of deceased. (Specify only the highest class completed)

Non e	Gr-R	Gr-1	Gr-2	Gr-3	Gr-4	Gr-5	Gr-6	Gr-7	Gr-8 Form 1	Gr-9 Form 2	Gr-10 Form 3 NTC 1
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(mark with a)

19. Usual occupation of deceased (type of work done during most of working life)

20. Type of business / industry: (mark with a)

1. Agriculture, hunting, forestry and fishing	2. Mining and quarrying	3. Manufacturing	4. Electricity, gas and water supply	5. Construction	6. Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; hotels and restaurants	7. Transport, storage and communication	8. Financial intermediation, insurance, real estate and business services
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21. Was the deceased a regular** smoker five years ago? (mark with a) 21.1 Yes 21.2 No 21.3 Do not know 21.4 Not applicable (minor)

Complete the particulars of the deceased, including:

- Identification of the deceased
- Place of death
- Personal details of the patient

Doctor to complete his/her professional details, including:

- Personal details
- Facility details

B. CERTIFICATE BY ATTENDING MEDICAL PRACTITIONER / PROFESSIONAL NURSE
Instructions: Section B to be filled out by the **same Medical Practitioner / Professional Nurse** who completed Section A.

22.1 I, the undersigned, hereby certify that the deceased named in Section A, to the best of my knowledge and belief, died solely and exclusively due to **Natural Causes**

22.2 I, the undersigned, am not in a position to certify that the deceased died exclusively due to **Natural Causes**

Particulars of the Medical Practitioner / Professional Nurse who filled out the form: 23. HPCSA Registration No. _____

24. Surname _____

25. Forenames _____

26. Name of Health Facility / Practice _____ 27. Facility / Practice No. _____

28. Business Address: Street _____
 Town _____ Province _____

Telephone No. (Office) _____ Postal Code _____

I, the undersigned, hereby certify that I examined the body of the deceased named in section A and declare that the deceased, to the best of my knowledge and belief, died solely and exclusively due to natural or unnatural causes as indicated on paragraph 22 and in case this is not true, I shall be guilty of an offence and on conviction liable to a fine or to imprisonment for a period not exceeding five years or to both such fine and such imprisonment (Section 31(1)(b) of the Act 51 of 1962.)

Place signed _____
 Date signed

Y	Y	Y	Y	M	M	D	D
---	---	---	---	---	---	---	---

 Signature _____

Office stamp of health facility or practice

* Where the deceased lived on most days. **Smoking tobacco on most days.

Continue to complete the section for Medical certificate of cause of death

- Use "COVID-19" as official terminology. As there are many types of coronaviruses, avoid the term "coronavirus" to reduce classification/coding uncertainty and correctly monitor deaths.
- Record "COVID-19" on the medical certificate of cause of death for all deceased patients if:
 - COVID-19 caused death (SARS-CoV-2 test positive) or
 - COVID-19 is assumed to have caused death (SARS-CoV-2 not identified but clinical picture compatible with COVID-19) or
 - COVID-19 contributed to death, along with other causes.

Complete cause of death Part 1:

- Specify the chain of events leading to death in Part 1. For example, in cases when COVID-19 causes pneumonia and fatal respiratory distress, both pneumonia and respiratory distress should be included, along with COVID-19, in Part 1.
- **Immediate cause:**
 - This is the final disease, injury or complication directly causing the death. It is not the mechanism of death or terminal event (e.g. heart failure, cardiac arrest, respiratory arrest).
 - For example, complete this section with "Acute Respiratory Distress Syndrome" and/or "Pneumonia".
- **Underlying cause:**
 - This is the disease that started the sequence of events leading directly to death.
 - Complete this section with:
 - "Confirmed COVID-19" if SARS-CoV-2 test positive.
 - "Suspected COVID-19" if clinical picture compatible with COVID-19 but SARS-CoV-2 not identified.
 - "Probable COVID-19" if clinical picture compatible with COVID-19 but SARS-CoV-2 test result pending or inconclusive.

Complete particulars of deceased Part 2:

- Complete co-morbidities that may have contributed to the death, but not part of the direct cause. Include length of time that patient has had each co-morbidity e.g. "Coronary artery disease (5 years), Type 2 diabetes (14 years), Chronic obstructive pulmonary disease (8 years)"

Complete particulars of deceased:

- Personal details
- Demographic details

Complete details of contact person at facility

G. MEDICAL CERTIFICATE OF CAUSE OF DEATH
 Instructions: Section G is to be filled out by Medical Practitioner / Professional Nurse / Forensic Pathologist, who has determined the cause of death

PARTICULARS OF DECEASED

67. Identity No. (Passport No. if foreigner)

68. Gender 68.1 Male 68.2 Female 68.3 Indeterminable

69. Surname

70. Forenames

71. Population Group 71.1 African 71.2 White 71.3 Indian/Asian 71.4 Coloured 71.5 Other (specify) _____

72. Place of Death 72.1 Hospital/Inpatient 72.2 ER/Outpatient 72.3 DOA 72.4 Nursing Home 72.5 At Home 72.6 Other (specify) _____

73. Name of Health Facility/Practice

74. Facility Contact Telephone No. incl. Area Code

75. Patient File No.

76. Contact Person at Facility: Surname
 Forenames
 Role/Rank

G.1 FOR DEATHS OCCURRING AFTER ONE WEEK OF BIRTH
 Instructions: Section G.1 is to be completed for all deaths that occurred after one week of birth

77. CAUSES OF DEATH

Part 1	Enter the disease, injuries or complications that caused the death. Do not enter the mode of dying, such as cardiac or respiratory arrest, shock or heart failure. List only one cause on each line	Approximate interval between onset and death (Days / Months / Years)	For office use only
	IMMEDIATE CAUSE (final disease or condition resulting in death) a) _____ Due to (or as a consequence of) _____	_____	ICD-10 <input type="text"/>
	Sequentially list conditions, if any, leading to immediate cause. b) _____ Due to (or as a consequence of) _____	_____	
	Enter UNDERLYING CAUSE last (Disease or injury that initiated events resulting in death) c) _____ Due to (or as a consequence of) _____	_____	
	d) _____	_____	
Part 2	Other significant conditions contributing to death but not resulting in underlying cause given in Part 1 _____		

78. If a female, was she pregnant at the time of death or up to 42 days prior to death? () 82.1 Yes 82.2 No

79. Method used to ascertain the cause of death (tick all that apply):

79.1 Autopsy 79.2 Post mortem examination 79.3 Opinion of attending medical practitioner 79.4 Opinion of attending medical practitioner on duty

79.5 Opinion of registered professional nurse 79.6 Interview of family member 79.7 Other (specify) _____