



health

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**NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES**

Division of the National Health Laboratory Services

Clinical management of suspected or confirmed COVID-19 disease

Version 4 (18th May 2020)

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Guideline Summary

Suspected COVID-19 cases

- A suspected COVID-19 case includes any person presenting with an acute (≤ 14 days) respiratory tract infection or other clinical illness compatible with COVID-19, or an asymptomatic person who is a close contact to a confirmed case
- Any suspected case should be identified as soon as possible (ideally prior to entering the facility). Such cases should immediately be given a surgical mask and be isolated. Good hand hygiene and cough etiquette should be taught, and appropriate samples obtained.
- A broad differential diagnosis should be entertained for suspected COVID-19 cases. Appropriate testing must be undertaken and empiric management prescribed as required for likely alternative diagnoses.
- Suspected COVID-19 cases who are medically well, or have mild disease, may be managed at home while awaiting test results if they are able to safely self-isolate.

Testing

- PCR-based testing is required for the diagnosis of acute COVID-19 cases. Only one upper respiratory tract swab needs to be taken – currently, a nasopharyngeal sample is recommended, but saliva may be a viable alternative. Lower respiratory tract samples (e.g. sputum or endotracheal aspirate) should also be sent if available (do not perform sputum induction however).
- Antibody-based (serological) tests are not currently recommended for the diagnosis of acute COVID-19.

Confirmed COVID-19 cases

- Patients with mild disease may be considered for management at home, provided they are able to safely self-isolate (see criteria in table 2).
- We do not recommend that patients on ACE-inhibitors, angiotensin-receptor blockers, or nonsteroidal anti-inflammatory discontinue these agents due to COVID-19 related concerns. Paracetamol remains the recommended first-line medication for the treatment of fever and pain.
- Oxygen therapy is the cornerstone of management for most patients requiring admission – target oxygen saturations of $\geq 90\%$ for most patients, using nasal prong oxygen, a simple face mask, or a face mask with a reservoir bag.
- For intubated patients with ARDS and low lung compliance, use lung-protective ventilation strategies.
- There is currently insufficient evidence to support the use of any specific therapy for COVID-19. Any investigational drugs or therapeutics should be reserved for hospitalized patients. They should ideally be administered as part of a clinical trial, but at a minimum they should be administered under the Monitored Emergency Use of Unregistered Interventions (MEURI) framework.
- Patients may be de-isolated without the need for repeat PCR tests. Provided the patient's fever has resolved and their symptoms have improved, those with mild disease may be de-isolated 14

days after symptom onset, while those with severe disease may be de-isolated 14 days after achieving clinical stability (e.g. once supplemental oxygen is discontinued).

Healthcare worker personal protective equipment (PPE)

- For the majority of direct COVID-19 patient interactions, appropriate healthcare worker personal protective equipment consists of gloves, a gown or apron, a surgical mask and a face shield/visor/goggles.
- When performing aerosol-generating procedures (e.g. taking nasopharyngeal swabs, performing CPR, or intubating a patient), an N95 respirator should be used instead of a surgical mask.
- Meticulous compliance with donning and doffing procedures is critical to avoid contamination and infection.

Version 4: What's New?

- Updated case definition for a suspected COVID-19 case (section 3.1)
- New guidance on SARS-CoV-2 sampling and on repeat testing (section 3.2)
- Recommendation against the use of rapid antibody-based tests for the routine diagnosis of acute COVID-19 (section 3.2)
- Removal of the requirement that mild disease in high-risk individuals requires hospitalization (section 4.1)
- Guidance on patients requiring nebulized medications or inhaled or systemic steroid use for management of their comorbidities (section 4.2)
- Updates to critical care section (section 4.5)
- Specific guidance on children, HIV patients, and pregnant/breastfeeding women (section 5)
- Updated guidance on the forms required when testing and managing COVID-19 patients (section 7)

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1. Background

On 31st December 2019, the World Health Organization (WHO) was alerted to a cluster of pneumonia of unknown aetiology in patients in Wuhan City, Hubei Province of China. One week later the novel coronavirus (severe acute respiratory syndrome coronavirus 2: SARS-CoV-2) was identified as the cause. The resulting illness was named COVID-19 on the 11th February 2020. The clinical spectrum of COVID-19 ranges from an asymptomatic or mild flu-like illness to a severe pneumonia requiring critical care.

These guidelines describe the clinical management of cases of COVID-19 disease and covers clinical care in and outside health care facilities.

Scope and health questions

These guidelines cover the case definitions, screening and diagnosis and clinical management of suspected and confirmed COVID-19 patients. The scope includes all levels of care from ambulatory patients seen in primary care and for screening purposes and symptomatic patients managed in health facilities, including intensive care units.

Target audience for the guidelines

The guidelines are intended for use by health care providers working in both the public and private sectors in South Africa at all levels of care. The clinical management of COVID-19 should be guided by this document. These guidelines may also be important for health facility managers and policymakers planning the response to COVID-19.

Methods

The evidence regarding COVID-19 is evolving rapidly. These guidelines are based on available guidance for known aspects of clinical care (e.g pneumonia, severe acute respiratory syndrome). However, for new health care recommendations specific to COVID-19, the recommendations are based on the consensus of the expert guideline writing group based on emerging evidence. Specific recommendations regarding therapeutic interventions are based on rapid reviews of the available research evidence by the COVID-19 subcommittee of the National Essential Medicines List Committee (NEMLC), using systematic searching appraisal and synthesis methods. All contributors have completed a Declaration of Interest form, as stipulated by the National Department of Health. No specific funding has been sourced for these guidelines. Contributors are not paid to write these guidelines.