# Adults with mild or moderate COVID-19

***Executive summary***

**Introduction**

In late December 2019, the World Health Organization (WHO) China Country Office was informed of cases of pneumonia of unknown cause detected in Wuhan City, China. On 7 January 2020, the causative pathogen was identified as a novel coronavirus (SARS-CoV-2). The disease (COVID-19) can range from an symptomatic or mild flu-like illness to a severe pneumonia requiring critical care. It was declared a pandemic by WHO on 11th March 2020.

**Target User**

* Doctors
* Nurses

**Target area of use**

* Outpatient department
* Ward

## Key areas of focus / New additions / Changes

These guidelines addresses the diagnosis and management of low risk adults with COVID-19 who are mainly those under the age of 60 with no serious underlying health conditions.

**Limitations**

We lack access to HDU/ICU level care and cannot ventilate patients.

We have only two negative pressure ward side rooms.

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## Management in the Gate clinic or at registration to OPD

Patients should be asked as a group and individually at registration if they have a history of travel to areas with local transmission of SARS-CoV-2 in the last four weeks and if they have a fever, cough or shortness of breath.

When the number of people having a dry cough in the gate clinic and OPD waiting areas are more than usual, please have a heightened index of suspicion. The travel history inquiry must be repeated before consultation starts in the gate clinic and also during vital signs assessment at the OPD by the nurses. If the answer to both questions is yes, do not touch the patient. Give them a surgical mask and take them to a place 2 metres from other people. Immediately inform a doctor or senior nurse who will wear a mask, goggles and gloves and verbally screen the patient from a safe distance. If the risk for COVID-19 is significant, a call is immediately placed to the COVID-19 national number on 1025. A health worker in facemask and gloves must be left watching over the patient. If there is no risk for COVID-19, the patient is taken care of in the usual manner.

Epidemiological criteria- ***Please note that this is dynamic and it changes everyday***

Those that have travelled from the countries with ongoing presumed community transmission of COVID-19 disease in the 4 weeks prior to onset of symptoms. (See WHO website for the latest list of relevant countries:

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>)

OR

Contact with a confirmed case of COVID-19

OR

Patient has worked or attended a heath care facility where patients with COVID-19 acute respiratory disease patients were being treated.

Clinical criteria

Severe acute respiratory infection requiring hospital admission with radiological/clinical signs of pneumonia or respiratory distress syndrome

OR

Acute respiratory infection with cough or shortness of breath (with or without fever)

OR

Fever with no other symptoms.

AND with no other aetiology that fully explains the clinical presentation

## Presenting symptoms and signs

Early recognition of suspected patients allows timely initiation of infection prevention and control (IPC) measures. Most (80%) symptomatic patients develop mild disease, an estimated 15% develop severe disease (with hypoxaemia, dyspnoea and tachypnoea) while 5% become critically ill (with respiratory failure, septic shock and/or multiorgan dysfunction). The proportion of asymptomatic carriers is currently unknown.

The most common presenting symptoms have been:

* fever (~90%, but only present in 44% on admission)
* cough (68%)
* fatigue (38%)
* sputum production (34%)
* shortness of breath (19%)
* myalgia or arthralgia (15%)
* sore throat (14%)
* headache (13.6%)
* chills (12%).

Gastrointestinal symptoms such as nausea or vomiting (5.0%) and diarrhoea (3.8%) appear to be uncommon.

There have been recent reports of people with COVID-19 presenting with loss of smell (anosmia) and loss of taste (ageusia)

The vast majority of cases will make a full recovery, particularly the low risk adults.

## Examination findings

Examinations are non-specific and may range from none other than fever to severe respiratory distress, shock and multi organ failure.

### Important things to look for

## Travel history of anyone meeting the clinical criteria is key.

## Management at the OPD and Ward

Diagnostic criteria, symptoms, signs and examination findings are as above.

As soon as a possible case is identified the nurse and doctor in charge should be called. Possible cases should be given a surgical mask to wear as soon as it is clear that they are a possible case.

They should then be transferred as soon as possible into the negative pressure ward side room using the rear corridor (avoiding transit through the ward). If the two side rooms are occupied, the Gambian MOH must be promptly informed on 1025 so that the patient can be evacuated after nasopharyngeal and throat samples are taken for COVID-19. However, if the patient is eligible for admission into the MRCG CSD, admit to the COVID-19 bay on Fajara ward and or the COVID-19 ward at Keneba.

For emphasis, the public health authorities (Gambian MOH, 1025) should be alerted that the unit has a possible case. They have the duty to follow things up and inform the WHO if the results turn out to be positive.

Where there is a delay in transit and the patient is well, they should be taken to chairs behind the seminar room to wait for the side room to be made ready. If they are unwell one of the OPD rooms should be vacated for them and access to this room strictly limited.

Once a patient has been identified as a possible case, 2 staff should get changed into the appropriate PPE. See SOP-AIR-001 and 002 for Donning/Doffing PPE for COVID-19.

## Investigations

Investigations should be discussed with the laboratories prior to sampling so that they can be sure that they are prepared. ALL samples should be clearly labelled with a sticker and marked as “suspected Coronavirus”

* Nasopharyngeal and oropharyngeal swab, sputum – For PCR detection of SARS-CoV-2 after discussion with the molecular lab.
* FBC – Lymphopenia is common, seen in ~80% of patients (Guan et al ,Yang et al). Mild thrombocytopenia is common (but platelets are rarely <100). Lower platelet count is a poor prognostic sign (Ruan et al 3/3). Also look for signs of other diseases or coinfection.
* U&Es – renal failure can be a complication of sepsis.
* LFTs – may give signs of alternative diagnosis (eg biliary sepsis).
* Malaria RDT & slide – looking for signs of other diseases or coinfection. Note that it is safe to do an RDT at the bedside using a capillary blood sample.
* Blood sugar – it is safe to do blood sugar at the bedside using a capillary sample.
* HIV – looking for signs of other diseases or coinfection.
* Chest X-ray – should NOT be performed until COVID-19 has been ruled out as there is a risk of contamination. If/when available, the portable Xray machine will be used for all chest X-rays.
* ECG – if there is arrhythmia.
* USS – bedside USS may be helpful in the absence of CXR. Remember that the probe and all parts that enter the negative pressure room must be decontaminated after use.
* Other tests that are clinically indicated.

**Treatment on the Ward**

There is no specific treatment for COVID-19.

Patient with confirmed COVID-19 with **mild disease** such as fever, cough, sore throat, fatigue, headache, muscle pain and nasal congestion may be managed at home with strict instructions to self-isolate at home where they will be followed up by public health officials and be given appropriate advice about reducing possible transmission to others. See guidance on Self-isolation for Coronavirus issued by MRCG at LSHTM.

Currently in the Gambia however, people with mild disease are being admitted to ensure isolation and decrease the probability of community/local transmission. This might however change as the pandemic unfolds locally.

Confirmed patients with **moderate** to **severe** cases with pneumonia manifestations who meet any of the following criteria: respiratory rate ≥ 30 breaths/min; oxygen saturation ≤ 93% at a rest state; Heart rate > 120 bpm, temperature > 39 and altered mental state must be hospitalized to receive supportive therapy. This is covered in another guideline.

All patients must be assessed for severity and a decision made about plans for treatment escalation at the time of admission. This is covered in another guideline.

**Give supplemental oxygen therapy immediately to patients with low oxygen saturation.**

Oxygen therapy is likely to be the single most effective supportive measure in COVID-19 patients overall. Target SpO2 ≥90% in non-pregnant adults and SpO2 ≥92-95 % in pregnant patients. Titrate oxygen therapy up and down to reach targets by means of nasal cannula, a simple face mask or a face mask with reservoir bag, as appropriate.

**Use conservative fluid management in patients with SARS when there is no evidence of shock.** Aggressive fluid resuscitation may worsen oxygenation, especially in settings where there is limited availability of mechanical ventilation.

**If a clinical suspicion for co-infection exists, consider empiric antimicrobials to treat co-pathogens causing the syndrome, particularly in severe cases**. This may include conventional and atypical bacterial pathogens, malaria, influenza and PCP.

Although there is no clinical evidence for effective antiviral drugs, lopinavir-ritonavir combination as well as antibacterial, azithromycin and antimalarial drug, hydroxychloroquine are being studied at the moment. Use of antiviral or anti-inflammatory medications should be used only as part of a clinical trial.

Closely monitor patients for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis, and apply supportive care interventions.

**Differential diagnosis**

* Influenza (remembering the seasonality in patients from the northern hemisphere differs from those of the southern hemisphere)
* Both conventional and atypical bacterial pneumonias,
* In patients with HIV and a CD4 count <200 cells/mm3 (or equivalent immunosuppression), *Pneumocystis jiroveci* pneumonia.

**Discharge and deisolation criteria**

Patients with COVID-19 can be discharged home from OPD or isolation room provided the meet ALL of the following criteria:

1. There are no medical indications for admission.

2. The patient’s symptoms have improved or resolved. (Note: full recovery can take several weeks, especially in severe cases. It is not necessary for every symptoms to have completely resolved prior to discharge, only that there has been improvement).

3. The patient has two consecutive negative combined nasopharyngeal and oropharyngeal RT-PCR tests, performed at least 24-48 hours apart.

Patients with mild disease who were managed at home from the outset can be deisolated using the same criteria.

## Key Issues for Nursing care

* All patients being seen in Gate clinic or OPD with any one of cough, shortness of breath or fever starting in the last 14 days MUST be asked about travel.
* All nursing staff entering a side room containing a patient, or caring for a patient in another setting, with suspected or proven COVID-19 must wear PPE as outlined in the SOP.
* All staff that have contact with the patient must enter the details into the log book provided.

## References

Handbook of COVID-19 prevention and treatment <https://video-intl.alicdn.com/Handbook%20of%20COVID-19%20Prevention%20and%20Treatment%20%28Standard%29.pdf?spm=a3c0i.14138300.8102420620.download.6df3647ft8yaHa&file=Handbook%20of%20COVID-19%20Prevention%20and%20Treatment%20%28Standard%29.pdf>

Clinical management of suspected or confirmed COVID-19 disease <http://www.health.gov.za/index.php/component/phocadownload/category/628>

WHO technical guidance for 2019-nCoV. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>

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