# 2019 novel Coronavirus (SARS-CoV-2/COVID-19)

## *Executive summary*

## Introduction

Infection with 2019 novel Coronavirus (SARS-CoV-2) and the disease associated with it (COVID-19) arose at the end of 2019 in Wuhan, China. This viral infection has since spread rapidly across the world. Although most coronaviruses cause nothing more than sore throat, runny nose and coryzal symptoms, SARS-CoV-2 causes severe pneumonia in a small minority of cases. The infection is considered a High Consequence Infectious Disease (HCID) owing to the possibility that it could cause a worldwide pandemic. If this were to happen then very many deaths could result, despite the relatively low mortality rate compared with other HCID (around 2%).

Currently management of suspected and confirmed COVID-19 infection encompasses 3 main goals:

1. Care for the patient.
2. Prevent onward transmission of the virus
3. Facilitate contact tracing & public health response

## Target users

* Nurses
* Doctors

## Target area of use

* Outpatient department
* Ward

## Key areas of focus / New additions / Changes

This guideline addresses the diagnosis and management of patients with COVID-19.

## Limitations

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

We have limited negative pressure side rooms.

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

Patients should be asked as a group and individually at registration if they have travelled to Asia in the last 4 week and if they have a fever, cough or shortness of breath. If the answer is 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. Call the COVID-19 phone number and leave someone watching over them who is wearing gloves and a face mask.

## Presenting symptoms and signs

At the present time COVID-19 can only be diagnosed by PCR of respiratory specimens (oro/nasopharyngeal swabs, sputum).

Patients meeting BOTH epidemiological AND clinical criteria should be considered at risk of the infection (‘possible or suspected cases’):

Epidemiological criteria

Those that have travelled from any country with local transmission according to the most recent WHO Situational Report\* in the 2 weeks prior to onset of symptoms:

\*https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

OR

Contact with a confirmed case of COVID-19.

Clinical criteria

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

OR

Acute respiratory infection with 1 of cough or shortness of breath (with or without fever)

OR

Fever with no other symptoms.

## 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 on anyone meeting the clinical criteria is key.

## Management

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 side room using the rear corridor (avoiding transit through the ward).

The public health authorities should be alerted that the unit has a possible case.

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. This includes:

* FFP2 or FFP3 face mask.
* Visor or googles.
* Long sleeved gown or coverall worn over scrubs.
* Plastic apron if high level of exposure to liquids possible (eg vomiting patient).
* Clogs or shoe coverings.
* Gloves (2 pairs if patient sampling is being planned or if anything is being removed from the room).

**Clinical management**

There is no specific treatment for COVID-19.

Most patients identified as possible cases will NOT have COVID-19. They will have a variety of infections which may range from minor viral infections, through severe bacterial infections or malaria. They should be managed accordingly.

This may involve simple observation, antibiotics or antimalarials.

### What to do when a test comes back positive:

All positive results must be fed back to the appropriate Public Health officials and discussed with the consultant on call and the lead COVID-19 doctor.

At present the government plans to cohort positive cases in the Sanatorium. However unstable cases may be better served by keeping them on site.

COVID-19 will not respond to antibiotics, however bacterial co-infection is possible and it may be necessary to continue antibiotics in patients with severe pneumonia who return positive results for SARS-CoV-2. Cases should be considered on an individual basis and discussed with senior colleagues.

### What to do when a test comes back negative:

Patients who are well and return a negative test should be able to go home. If they are still within the 14 day window period after travel to countries listed in the epidemiological risk criteria they should be asked to follow the public health advice that is in operation, for example they may return to self-quarantine (such cases should be discussed with public health).

Any suspect case whose symptoms evolve or worsen should be retested and treated as an ongoing suspect case (eg a suspect case who presented with fever alone and then develops shortness of breath and cough should be retested).

## Escorts & visitors

## The incubation period for SARS-CoV-2 can be as short as 2 days. If the patient has attended with an escort, their name and contact details should be taken for communication to the public health authorities. That escort should be asked how much contact they have had prior to the patient’s attendance. They should be asked if they have any symptoms themselves. If they are symptomatic consideration should be given to isolating them also pending the results on the possible case. If they are asymptomatic consideration should be given to asking them to self-isolate at home pending the results of the test. This should be discussed with the public health team.

Escorts should only be permitted in the side rooms of patients with possible COVID-19 in exceptional circumstances after discussions with senior staff and discussions of risk.

Escorts should not be permitted in the side rooms of patients with confirmed COVID-19 unless they are essential for patient care (eg nursing mother of child with COVID-19).

Visitors are not permitted for patients with possible or confirmed 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 “Coronavirus”

* Nasopharyngeal and oropharyngeal swab, sputum. For PCR detection of SARS-CoV-2 after discussion with the molecular lab.
* FBC – looking 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.
* CXR – should NOT be performed until COVID-19 has been ruled out as there is a risk of contamination.
* 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.

## 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 10 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

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

Novel Coronavirus (2019-nCov) Guidance for Health professionals collection. https://www.gov.uk/government/collections/wuhan-novel-coronavirus

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