

# **GUIDELINES FOR HEALTHCARE PROFESSIONALS MANAGING COVID-19**

## **Version 3**

Dubai Healthcare City Authority Regulatory Department (2020)

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	4
<b>DEFINITIONS</b> .....	6
<b>ABBREVIATIONS</b> .....	8
<b>1. BACKGROUND</b> .....	9
<b>2. SCOPE</b> .....	10
<b>3. PURPOSE</b> .....	10
<b>4. APPLICABILITY</b> .....	10
<b>5. RECOMMENDATION ONE: CASE DEFINITION</b> .....	10
<b>6. RECOMMENDATION TWO: SARS-COV-2 TESTING CRITERIA</b> .....	12
<b>7. RECOMMENDATION THREE: SEROLOGICAL TEST RECOMMENDATIONS</b> .....	15
<b>8. RECOMMENDATION FOUR: REQUIREMENTS FOR CONTROL OF SPREAD OF INFECTION</b> ...	16
<b>9. RECOMMENDATION FIVE: MANAGEMENT OF HEALTHCARE PROFESSIONALS EXPOSED TO SARS-COV-2</b> .....	17
<b>10. RECOMMENDATION SIX: CLINICAL CARE FOR PATIENTS WITH CONFIRMED COVID-19 INFECTION</b> .....	20
<b>11. RECOMMENDATION SEVEN: TREATMENT REGIMEN OF STABLE PATIENTS</b> .....	21
<b>12. RECOMMENDATION EIGHT: REQUIREMENTS FOR HOME OR NON-MEDICAL FACILITY ISOLATION</b> .....	21
<b>13. RECOMMENDATION NINE: PATIENT CARE EQUIPMENT</b> .....	23
<b>14. RECOMMENDATION TEN: ADVICE FOR PATIENTS IN ISOLATION</b> .....	24
<b>15. RECOMMENDATION ELEVEN: PATIENT TRANSPORT TO HOSPITALS</b> .....	24
<b>16. RECOMMENDATION TWELVE: DE-ISOLATION AND DISCHARGE CRITERIA</b> .....	25

<b>17. RECOMMENDATION THIRTEEN: HOME QUARANTINE/SELF ISOLATION .....</b>	<b>26</b>
<b>18. RECOMMENDATION FOURTEEN: MANAGEMENT OF BODIES WITH INFECTIOUS OR COMMUNICABLE DISEASES.....</b>	<b>27</b>
<b>REFERENCES .....</b>	<b>32</b>
<b>APPENDICES.....</b>	<b>35</b>
<b>APPENDIX 1: PROTOCOL ON THE MANAGEMENT OF HEALTHCARE PROFESSIONALS EXPOSURE TO COVID-19 (ADAPTED FROM MOHAP) .....</b>	<b>35</b>
<b>APPENDIX 2: EPIDEMIOLOGIC RISK CLASSIFICATION .....</b>	<b>37</b>

## EXECUTIVE SUMMARY

This Guideline provides an updated guidance to healthcare professional involved in the COVID-19 response and management of patients. This document will help guide healthcare professionals about the procedures used to deal with exposed or confirmed cases , laboratory tests, infection control, treatment and isolation procedures. This document is based on current knowledge of the situation globally related to COVID-19 and is aligned with current National guidelines and best practices and circulars/documents issued federally by the government of the UAE related to the subject.

The purpose of this document is to assure the provision of evidence-based practice among healthcare professionals in the management of COVID-19 patients. The guideline was developed to align with the evolving healthcare needs and international best practice. The guideline includes various aspects required to provide effective, efficient, safe, and high-quality services. It includes case definitions, COVID-19 testing criteria and serological recommendations, management of healthcare professionals exposed to COVID-19, facility management and healthcare professional responsibilities, testing and patient transportation requirements and precautionary measures to ensure the spread of infection is minimised and nullified at the point of discharge. Patients who are isolated or quarantined must always be treated with respect and dignity. Relevant standards and guidelines should be read in conjunction with this document and include UAE approved guidelines for the management of COVID-19 as well as DHCA Regulations, Policy, Standards and Guidelines that relate to the provision of healthcare service delivery. These include but are not

limited to Dubai design code, consent, medical record keeping, infection control and the, code of conduct for healthcare professionals.

This is to ensure public, professionals and patient health protection and to ensure efficiency and integrity of procedures applied to handle cases of COVID-19, in all DHCA licensed health facilities.

DHCA will update these recommendations as new information becomes available.

## DEFINITIONS

**Close contact:** Exposure to a confirmed case of COVID-19 (within 2 meters) for more than 15 minutes without a mask.

**Confirmed case:** A person meeting the clinical and laboratory diagnostic criteria for COVID-19 with positive SARS-CoV-2 PCR test by an approved laboratory.

**Suspected COVID-19:** Patient who presents upper or lower respiratory symptoms with or without fever ( $\geq 37.5^{\circ}\text{C}$ ) AND fulfilling any one of the following criteria:

- International travel history during the 14 days prior to symptoms onset
- Contact with a confirmed COVID-19 case within preceding 14 days
- Residing in a community setting where COVID-19 cases have been detected **OR**
- Presence of influenza-like symptoms without history of travel or known possible exposure.

**Deceased:** Is a patient/person who has recently died.

**Health Facility:** A DHCA licensed entity that is authorised to provide medical services whether its owner or manager is an individual or an organization.

**Healthcare Professionals (HCP):** refers to all persons, paid and unpaid, working in healthcare settings engaged in patient care activities, including: patient assessment for triage, entering examination rooms or patient rooms to provide care or clean and disinfect the environment, obtaining clinical specimens, handling soiled medical supplies or equipment and coming in contact with potentially contaminated environmental surfaces.

**Isolation:** is separation of patients and/or staff into a secluded area or room for infection control purposes. Isolation may include self-isolation in a room, home, or residential institution.

**Mortuary:** Is a facility for the viewing and/or identification of a body and the temporary holding/storage of bodies.

**Patient:** Shall mean any individual who receives medical attention, care or treatment by any healthcare professional or admitted in a health facility.

**Probable Case:** Any person meeting the clinical criteria with an epidemiological link OR a suspected case with “presumptive positive” SARS-CoV-2 as reported by an approved laboratory.

**Quarantine:** Separation and restriction of movement of patients or people who are exposed to a contagious disease to determine if they have been exposed or become sick.

## ABBREVIATIONS

<b>COVID-19</b>	:	Corona Virus Disease
<b>ECG</b>	:	Electrocardiogram
<b>FBC</b>	:	Full Blood Count
<b>HCP</b>	:	Healthcare Professionals
<b>HCWs</b>	:	Healthcare Workers
<b>LFT</b>	:	Liver Function Test
<b>PCR</b>	:	Polymerase Chain Reaction
<b>POCT</b>	:	Point of Care Testing
<b>PPE</b>	:	Personal Protective Equipment
<b>PUI</b>	:	Patient Under Investigation
<b>RFT</b>	:	Renal Function Test
<b>SARS</b>	:	Severe Acute Respiratory Syndrome

## 1. BACKGROUND

Corona Virus (COVID-19) is a novel disease that has manifested globally and is thought to have spread from animal species to humans. COVID-19 is understood to be spreading from human to human through droplets (coughing and sneezing) and through direct contact with contaminated surfaces or hands. Symptoms usually appear two (2) to fourteen (14) days after exposure.

Safeguards and masks to prevent the spread of COVID-19 include avoid sneezing in the open, touching the face by hand, avoiding direct contact (handshaking) with other people, physical distancing, washing hands regularly and not travelling to locations where the virus is prevalent.

Although the majority of people with COVID-19 cases are uncomplicated or suffer from mild illness (81%), some cases are expected to develop severe illness requiring oxygen therapy (14%) and approximately 5% will need treatment in an intensive care unit. Critically ill patients will require mechanical ventilation. The most common diagnosis for severe COVID-19 cases is severe pneumonia sometimes resulting in Adult Respiratory Distress Syndrome (ARDS). Healthcare professionals in particular may be at risk for COVID-19 exposure, due to direct and prolonged contact with patients. Therefore, healthcare professionals need to take precautionary measures to limit the spread of COVID-19, and when self-exposure is suspected or confirmed.

## 2. SCOPE

- 2.1. DHCA Healthcare Professionals (HCP) who are directly involved in the management of COVID-19.

## 3. PURPOSE

- 3.1. To provide an updated guidance to DHCA healthcare professionals on the management of the COVID-19.
- 3.2. To provide guidance for managing healthcare professionals who are either suspected or confirmed with COVID-19.
- 3.3. To detail the measures necessary to protect healthcare professionals, patients, and visitors.

## 4. APPLICABILITY

- 4.1. DHCA licensed Healthcare Professionals
- 4.2. DHCA licensed Health Facilities

## 5. RECOMMENDATION ONE: CASE DEFINITION

- 5.1. Suspected COVID-19 case is defined as:
  - 5.1.1. Person meeting the clinical criteria of COVID based on current knowledge.
- 5.2. Probable case is defined as:
  - 5.2.1. Any person meeting the clinical criteria with an epidemiological link or.
  - 5.2.2. A suspected case with a COVID-19 test reporting “Presumptive positive” by an approved laboratory.

5.3. Confirmed COVID-19 is defined as:

- 5.3.1. A person meeting the clinical criteria and has a laboratory confirmed positive COVID-19 test positive SARS COV2 Polymerase Chain Reaction (PCR) by an approved laboratory.

5.4. Clinical Criteria:

- 5.4.1. Refers to any person with the following symptoms:

- a. Cough.
- b. Fever ( $>37.5^{\circ}\text{C}$ ).
- c. Shortness of breath.
- d. Sudden onset of anosmia, aguesia or dysgeusia.
- e. Non-specific symptoms such as headaches, muscle pain, fatigue, and gastrointestinal symptoms.

5.5. Laboratory Criteria:

- 5.5.1. The detection of SAR-CoV-2 nucleic acid (PCR) in a clinical specimen by an approved laboratory.

5.6. Diagnostic Imaging Criteria:

- 5.6.1. Radiological evidence showing pulmonary lesions compatible with COVID-19.

5.7. Epidemiological Criteria:

- 5.7.1. At least one of the following two epidemiological links:

- a. Close contact with a confirmed COVID-19 case in the 14 days prior to the onset of symptoms.

- b. International travel history during the 14 days prior to the onset of symptoms.
- c. Healthcare workers or a staff/resident, in the 14 days prior to the onset of symptoms, staying in a residential institution for vulnerable people where ongoing COVID-19 transmission is confirmed.

## 6. RECOMMENDATION TWO: SARS-COV-2 TESTING CRITERIA

- 6.1. A DHCA licensed physician should only request testing in accordance to the National Guidelines for Clinical Management and Treatment of COVID-19.
  - 6.1.1. In line with Dubai government testing strategy, tests should be performed on symptomatic patients and not mass or routine testing.
- 6.2. Healthcare professionals i.e., clinicians and nursing staff, should receive proper training for sample collection, sample storage, packaging, and transportation.
- 6.3. Health facilities should have a dedicated room for swab collection with infection room measures and not limited to:
  - 6.3.1. Air purification system; and
  - 6.3.2. Hand washing sink.
- 6.4. Health professionals collecting the specimens shall follow infection control measures and use recommended PPE (N95, facemask, eye protection, gloves, and a gown).
- 6.5. Swabs should be collected under aseptic conditions and shall be placed immediately into a sterile transport tube of 2-3ml Viral Transport Media (VTM).
- 6.6. Samples for suspected COVID-19 cases:

6.6.1. Upper respiratory tract sample:

- a. Nasopharyngeal swab with or without an oropharyngeal swab.
- b. Nasopharyngeal specimen is the preferred choice for swab for initial diagnostic testing.

6.6.2. Lower respiratory tract sample.

- a. Preferred choice in patients with lower respiratory symptoms.
- b. If lower tract symptoms are not clinically indicative, upper respiratory sample may be collected instead.
- c. Samples include:
  - i. Broncho alveolar lavage, tracheal aspirate, pleural fluid, and lung biopsy. These may be limited to patients presenting with more severe symptoms or receiving invasive mechanical ventilation.
  - ii. Sputum
  - iii. A deep cough expectorate is collected directly into a sterile leak-proof screw cap collection cup or a sterile dry container.

6.7. Repeat test should only be performed if initial testing is negative and there is a high index of suspicion.

6.7.1. Negative tests need to be correlated with clinical findings and other diagnostic procedures.

6.7.2. Positive test for COVID-19 indicated infection with SAR-CoV-2, however it does not rule out co-infection with other viruses.

- 6.8. Samples for positive COVID-19 cases require the following test:
- 6.8.1. Blood typing for all confirmed cases.
- 6.9. DHCA approved health facilities should ensure all patient details are filled accurately and on timely manner in HASANA system as per the Communicable Disease Notification Policy.
- 6.10. Storage and shipment of samples
- 6.10.1. Label the collected sample as biohazard and appropriately packaged.
- 6.10.2. Store samples at 2-8°C and ship on ice pack to the laboratory with a thermometer to register the temperature.
- 6.10.3. Samples can be stored at 2-8°C for <48 hours, if longer storage is needed, sample is frozen at -20°C.
- 6.10.4. Transport of COVID-19 samples should be through a cold chain logistics.
- 6.10.5. Samples should be dispatched within two (2) hours from the collection time using a double packaging system.
- 6.10.6. It is recommended to have a built-in thermometer to ensure that the temperature is maintained throughout the transport.
- 6.11. Test results should be reported to the patient/guardian via phone call and/or mobile text message (SMS) within 24 hours of results interpretation.
- 6.12. For further information, please refer to the Standards for SARS-CoV-2 Testing available on DHCA website.

## 7. RECOMMENDATION THREE: SEROLOGICAL TEST RECOMMENDATIONS

- 7.1. The use of POCT test is not recommended
- 7.2. There has been no established advantage for using IgG, IgM and IgG assay or total antibody.
- 7.3. Real time PCR RT-PCT is the gold standard test for diagnosing COVID-19 infection.
- 7.4. Serological assays now have Emergency Use Authorization (EUA) and by (FDA) which has independently reviewed their performance.
- 7.5. Serological test results do not need to be entered in HASANA.
- 7.6. It is important to minimize false positive tests results by choosing an assay with high specificity and sensitivity.
- 7.7. Antibody serological testing supports clinical diagnosis in late disease presentation with negative PCR (9-14 days)
- 7.8. Serological testing should not be used for the diagnosis of acute infection.
- 7.9. Serological testing should not be used to issue immunity passport.
- 7.10. Antibody serology test interpretation:
  - 7.10.1. Negative Result: sample does not contain detectable SARS-COV-2 IgG antibodies. Negative tests do not rule out SARS-COV-2 infection.
  - 7.10.2. Positive Result: suggests a recent or prior infection with SARS-COV-2. Positive results may also suggest prior infection with other human coronavirus.

## 8. RECOMMENDATION FOUR: REQUIREMENTS FOR CONTROL OF SPREAD OF INFECTION

- 8.1. Dedicate healthcare professionals and limit the number of persons present in the room to the absolute minimum required for the patient's care and support.
- 8.2. Limit the number and frequency of visitors to enter the isolation room.
- 8.3. Keep log sheet of all persons coming in contact with the suspected/confirmed COVID-19 patients.
- 8.4. Exclude immunocompromised, pregnant, non-competent staff from the care of COVID-19 patients.
- 8.5. All healthcare professionals should apply standard precautions, contact precautions, and droplet precautions with eye protection when caring for the patients who are positive for COVID-19 regardless of clinical presentation.
- 8.6. The healthcare professionals should have access to PPE and ensure all healthcare professionals wear a fit-tested N95 mask, eye protection i.e., goggles or a face shield, gloves, head cover and impermeable gown when attending to a COVID-19 patient.
- 8.7. Ensure that front line staff as well as other staff at risks i.e., cleaning staff/housekeeping staff receive training on COVID-19 preventative strategies.
- 8.8. Ensure the use of visual alerts such as signs, posters at the entrance and waiting areas wearing facemasks and hand hygiene.
- 8.9. Provide supplies for respiratory hygiene and cough etiquette including hand sanitizer with 60-95% isopropyl alcohol.

8.10. Arrange seating in waiting rooms 2 meters/6 feet apart.

## 9. RECOMMENDATION FIVE: MANAGEMENT OF HEALTHCARE PROFESSIONALS

### EXPOSED TO SARS-COV-2

9.1. HCP who falls under any of the risk exposure and develop signs or symptoms for COVID-19 must inform their line management and point of contact (public health department or their facility's occupational health clinic) for a medical evaluation.

9.2. The management of HCP exposure to confirmed COVID-19 cases-using PPE **Appendix 1**

9.2.1. Determine if the exposed HCP is asymptomatic or symptomatic.

9.2.2. Exclude testing for protected and proper use of PPE if asymptomatic and should continue duty while monitoring symptoms for fourteen (14) days.

9.2.3. Stop performing duties if symptomatic and undergo testing. If positive, isolate and adhere to medical advice and retesting. If negative and remains asymptomatic for a period of fourteen (14) days post exposure, undergo retesting once to confirm negativity. Ensure that management monitors staff before and after each shift once discharged.

9.3. HCP medium/high exposure to confirmed COVID-19 cases-without PPE **Appendix 1**

9.3.1. Determine if exposed HCP is asymptomatic or symptomatic.

9.3.2. Stop performing duties if symptomatic and undergo testing. If positive, isolate and adhere to medical advice and retesting. If negative and remains asymptomatic for a period of fourteen (14) days post exposure, undergo

retesting to confirm negative results. Ensure management monitors staff before and after each shift once discharged.

9.3.3. Asymptomatic low risk within two (2) meters of exposure do not require testing and should continue duties with ongoing monitoring before and after working shift, monitored by management, for 14 days.

9.4. Epidemiological risk classification is provided for suspected or confirmed COVID-19 cases –low risk category.

## **Appendix 2**

9.5. General Precautions:

9.5.1. Undertake self-monitoring with delegated supervision until fourteen (14) days have passed since the last potentially known exposure.

9.5.2. Use PPE at all times and ensure contact and droplet precautions.

9.5.3. Management to ensure temperature checks are conducted before the start and at the end of the shift (twice a day).

9.5.4. The HCP should be advised to remain alert for respiratory symptoms consistent with COVID-19.

9.5.5. HCP must ensure they are afebrile/not feverish and asymptomatic before and after the start of their shift.

9.5.6. If the HCP develops a fever (measured temperature > 37.5 degrees Celsius (°C) (or subjective fever) OR respiratory symptoms, self-isolate immediately

and notify their line manager and their healthcare facility occupational health promptly; and

9.5.7. If HCP does not have a fever or respiratory symptoms, they may report to work.

9.6. Epidemiological risk classification is provided in **Appendix 2** for suspected or confirmed COVID-19 cases-medium or high-risk category.

9.6.1. General Precautions:

- a. Stop providing care in any healthcare setting and await test results. If the testing outcome is negative, the HCP should resume work and report the temperature.
- b. Absence of symptoms each day before and at the end of the shift for 14 days.
- c. Test and quarantine if tests are positive for fourteen (14 days) after their last exposure. This can be reduced to seven (7) days in case of staff shortages and where symptoms are mild. In such cases, conduct active monitoring and evaluation for fever and respiratory symptoms related to COVID-19.
- d. Report to work after a minimum of seven (7) days with two negative tests, 24 hours apart.
- e. Use PPE all the times and ensure contact and droplet precautions.
- f. Notify line management and healthcare facility occupational health; and

- g. Follow medical advice and evaluation requirements.
- h. HCP with COVID-19 positive test should stop all duties immediately and should be able to return to duties once they are free of symptoms and have two (2) consecutive negative PCR tests.

## **10. RECOMMENDATION SIX: CLINICAL CARE FOR PATIENTS WITH CONFIRMED COVID-19 INFECTION**

10.1. Fill and submit the PUI Form and submit it to the concerned Public Health Authority for all suspected or confirmed cases.

10.2. Ensure a contract/agreement with a nearby hospital for the baseline examination/assessment to check the stability of the patient that shall include the following, but not limited to:

10.2.1. Vital signs and physical examination.

10.2.2. Labs: Full Blood Count (FBC) with differentials, renal function and electrolytes, glucose (HbA1c if DM), liver function test, D-dimer, CRP, and ferritin.

10.2.3. Baseline ECG.

10.2.4. Chest x-ray.

10.3. All positive cases shall be isolated regardless of clinical presentation.

10.4. Severe and critically ill patients shall be admitted to hospitals and once their condition stabilizes, they can be transferred to lower levels of care areas.

10.5. Admit all patients with COVID-19 infection to single rooms with good ventilation and separate toilet in the non-healthcare setting/hotel.

#### 10.6. Patient in a non-healthcare setting/hotel should have a follow up plan

10.6.1. Patients will be followed up daily to monitor clinical progression i.e. fever, blood pressure, oxygen saturation etc. and adherence to therapy by a mobile team.

10.6.2. If patients are on medication, repeat baseline investigation:

Full Blood Count (FBC), Renal Function Test (RFT), Liver Function Test (LFT), Electrocardiogram (ECG) every 72 hrs.

10.6.3. Discharge if two (2) Negative tests taken more than twenty-four (24) hours apart and the patient is clinically stable with not active complaints or fever.

10.6.4. Patients with clinical deterioration or new symptoms should be transferred immediately to any allocated hospital by ambulance.

10.7. Ensure the isolation room and transport used for COVID-19 patients are effectively disinfected using hospital grade disinfectants e.g. BIOTAB7 which should be approved by MOHAP, after use.

### 11. RECOMMENDATION SEVEN: TREATMENT REGIMEN OF STABLE PATIENTS

11.1. Patients might need to be on symptomatic treatment only (antipyretics, cough syrup, nasal decongestants, etc.).

11.1.1. For further information on the treatment regimen of stable patients, refer to the National guidelines for clinical management and treatment of COVID19.

### 12. RECOMMENDATION EIGHT: REQUIREMENTS FOR HOME OR NON-MEDICAL FACILITY ISOLATION

12.1. Ensure the following criteria and patient groups are eligible for home isolation:

- a. Adults above the age of eighteen (18) years.
- b. Asymptomatic of mildly symptomatic adults with no risk factors.
- c. Family member or caretaker is a responsible and educated person who is committed to implement home isolation and treatment when necessary; and
- d. Confirm availability of a single well-ventilated room with a separate toilet for home isolation.

12.2. Patient should be fully informed of the legal consequences of non-compliance during home isolation.

12.3. The treating HCP should assess whether the patient and his/her family are aware and able to comply with the precautions recommended for home care (i.e. hand hygiene, cleaning, and movement restriction around and from home) and can address any safety concerns.

12.4. Ensure the following criteria and patient groups are eligible for non-medical facility isolation with medical care:

- a. Adults above the age of eighteen (18) years.
- b. Asymptomatic of mildly symptomatic adults with no risk factors.
- c. Patient has a family member who suffer from chronic conditions and are at high risk of complications due to infections, OR
- d. Patient has recently returned from travel abroad.

12.5. Patients during isolation are instructed to remain in their isolation settings (home or non-medical facility) and not be in contact with others.

12.6. Trained individuals wearing gloves, surgical masks and medical gowns during the disinfecting process should disinfect exposed surfaces daily with chlorine-based disinfectants approved by the authorities.

12.6.1. In home isolation, the use of gloves and surgical masks during cleaning and disinfecting is acceptable.

12.7. Ensure safe disposal of medical waste.

12.8. The following groups are excluded from home or non-medical facility isolation:

12.8.1. Children below 18 years and adults above 60 years after clinical assessment.

12.8.2. Patients with severe or critical illness e.g. unstable patients with pneumonia.

12.8.3. Pregnant and post-partum women after clinical assessment.

12.8.4. Patients with underlying Psychiatric illness.

12.8.5. Elderly patients with multiple underlying medical comorbidities.

12.8.6. Patients with underlying cardiac conduction defects.

### **13. RECOMMENDATION NINE: PATIENT CARE EQUIPMENT**

13.1. Use disposable devices or equipment.

13.1.1. If disposable devices and equipment are not an option, dedicate devices or equipment to a single patient.

13.1.2. If dedicated devices or equipment are not available, clean and disinfect the shared equipment before using it for other patients with approved disinfectant, maintaining product contact time.

13.2. Approved disinfectant for COVID-19 includes quaternary ammonium compounds, sodium hypochlorite and 70% alcohol wipes.

#### **14. RECOMMENDATION TEN: ADVICE FOR PATIENTS IN ISOLATION**

14.1. The patient in isolation shall ensure the following:

14.1.1. Maintain hand hygiene and cough/sneeze etiquettes at all times.

14.1.2. Avoid touching eyes, nose, and mouth.

14.1.3. Maintain healthy lifestyle as far as possible.

#### **15. RECOMMENDATION ELEVEN: PATIENT TRANSPORT TO HOSPITALS**

15.1. Avoid movement and transport of patients out of the isolation room or area unless medically necessary.

15.2. The use of designated portable x-ray, ultrasound, echocardiogram, and other important diagnostic machines is recommended, when possible.

15.3. If transport is unavoidable, the following should be observed:

15.3.1. Call ambulance and inform about the COVID-19 case, which will be transferred in designated ambulance.

15.3.2. Inform the referring and receiving facility about referring a suspected/confirmed case.

15.3.3. Patients should wear a surgical mask during the movement.

15.3.4. Use routes of transport that minimize exposures of staff, other patients, and visitors.

- 15.3.5. Notify the receiving area of the patient's diagnosis and necessary precautions before the patient's arrival.
- 15.3.6. Ensure that Healthcare Workers (HCWs) who are transporting patients wear appropriate PPE if they will participate in direct patient care and perform hand hygiene afterward.
- 15.3.7. Area used by the patient/wheelchair to be cleaned appropriately after patient transfer.

## 16. RECOMMENDATION TWELVE: DE-ISOLATION AND DISCHARGE CRITERIA

### 16.1. De-isolation:

#### 16.1.1. Asymptomatic COVID-19 positive patients:

- a. Fourteen (14) days have passed since the date of their first positive COVID-19 diagnostic test, assuming they have not subsequently developed symptoms since their positive test.
- b. Retesting is not required for asymptomatic patients after isolating for fourteen (14) days.
- c. De isolation is permitted after fourteen (14) days in an asymptomatic patient with a positive PCR test.

#### 16.1.2. Mildly symptomatic COVID-19 positive patients should have:

- a. At least 14 days have passed since symptoms first appeared and;
- b. Resolution of fever without the use of fever-reducing medications and;

- c. Improvement in respiratory symptoms (e.g., cough, shortness of breath) in the last three (3) consecutive days (72 hours).
- d. Follow up is not required after completing the fourteen (14) days.

### 16.3 Discharge criteria in moderate and severe symptomatic COVID-19 positive patients:

16.1.3. Two (2) consecutive respiratory specimens negative tests for COVID 19 that are  $\geq 24$  hours apart and;

16.1.4. Patient is afebrile for more than three (3) days without the use of fever-reducing medications and;

16.1.5. Patient has improved/minimal respiratory symptoms and;

16.1.6. Pulmonary imaging (CXR/ HRCT) shows significant improvement.

16.1.7. All patients after discharge should be self-isolated at home for seven (7) days from discharge date and to have a sick leave documented in medical record.

16.1.8. Discharged patients to be followed in the clinic in the hospital after two (2) weeks unless patient develops respiratory symptoms to attend earlier.

16.1.9. Asymptomatic patients do not require a follow up after fourteen (14) days.

16.2. The Public health/Preventive medicine department at DHA must be notified at discharge.

## 17. RECOMMENDATION THIRTEEN: HOME QUARANTINE/SELF ISOLATION

17.1. During home quarantine the patient should adhere to the following:

17.1.1. Stay at home.

- 17.1.2. Separate himself/herself from other people at home.
- 17.1.3. Do not go outside the house, unless it is an emergency and if so, wear a facemask and gloves.
- 17.1.4. Cover coughs and sneezes with tissue or flexed elbow.
- 17.1.5. Wash hands frequently.
- 17.1.6. Avoid sharing household items.
- 17.1.7. Monitor symptoms (or the person you are caring for, as appropriate).
- 17.1.8. Do not have visitors at home.
- 17.1.9. Avoid contact with pets in the household, try to keep away from them. If this is unavoidable, wash your hands before and after contact.
- 17.1.10. Ensure all waste that has been in contact with the patient during isolation (tissues and masks) is placed in a plastic rubbish bag and tied. The plastic bag should then be placed in a second bag and tied before disposal.
- 17.1.11. Follow any further instructions given to you by your physician/healthcare professional.

## **18. RECOMMENDATION FOURTEEN: MANAGEMENT OF BODIES WITH INFECTIOUS OR COMMUNICABLE DISEASES**

- 18.1. Bodies with infectious or communicable diseases (e.g. COVID-19, Ebola Virus Disease, etc.) may pose a risk when handled by untrained personnel. To ensure appropriate management of these bodies the mortuary staff should adhere with the following:

- 18.1.1. The health facility should have in place a written protocol for the management of bodies with infectious or communicable diseases.
- 18.1.2. All mortuary staff should be trained on the standard precaution and infection control measures required to handle bodies with infectious or communicable diseases.
  - a. Training should be documented and undertaken twice a year.
- 18.1.3. The requirements for preparing and packing the body for transfer from a patient room to mortuary are as follows:
  - a. The mortuary staff attending to the dead body shall follow standard precaution such as perform hand hygiene, ensure proper use of Personal Protective Equipment (PPE) like, water resistant apron, goggles, N95 mask, gloves.
  - b. The number of mortuary staff handling dead body with infectious or communicable diseases should be limited to limit the exposure.
  - c. All tubes, drains and catheters on the dead body shall be removed. Any puncture holes or wounds (resulting from removal of catheter, drains, tubes, or otherwise) should be contained with dressing.
  - d. The movement and handling of the body should be kept to a minimum.
  - e. There is no need to disinfect the body before transfer to the mortuary area.

- f. The body should be wrapped in a plastic sheet, a linen sheet and then placed in two leak-proof plastic body bags (cadaver bags). Health workers handling the body at this point should use PPE (surgical mask, clean gloves, and isolation gown).
- g. If the family of the deceased wishes to view the body at the time of removal from the isolation room or area, they may be allowed to do so with the application of standard precautions and should wash hands thoroughly with soap and hot water after the viewing.
- h. The family shall not touch, kiss, or hug the body of the deceased.
- i. Adults > 60 years and immunosuppressed persons shall not be allowed in close proximity to the body.
- j. The trolley carrying the body shall be disinfected with approved hospital disinfectants (e.g. 1% hypochlorite solution, quarterly ammonium chloride etc.)
- k. No special transport equipment or vehicle is required.
- l. The body of the deceased should be stored in cold chambers maintained at approximately 4°C.
- m. The mortuary shall be kept clean at all times.
  - i. Environmental surfaces, instruments and transport trolleys should be properly disinfected with approved hospital disinfectants.

18.1.4. The requirements for preparing and transferring the body from mortuary to graveyard are as follows:

- a. The body of the deceased should be prepared for burial in mortuary department of the health facility and shall not be taken to the house.
- b. Trained and competent personnel shall do the body washing only at public washing places with open spaces, with appropriate equipment wearing appropriate PPE (gloves, mask, gown, and face shield).
- c. A maximum of two (2) family members may be present at the washing service and they should wear full PPE with precautions.
- d. Anyone involved in the body washing process should thoroughly wash their hands with soap and hot water, when finished.
- e. The family of the deceased should be instructed to limit the number of people at the burial ground primarily to close family contacts, to avoid a large gathering.
- f. The belongings of the deceased person do not need to be burned or otherwise disposed. However, they should be handled with gloves and cleaned with a detergent followed by disinfection with a solution of at least 70% ethanol or 0.1% (1000 ppm) bleach. Clothing and other fabric belonging to the deceased should be machine washed with warm water at 60–90°C (140–194°F) and laundry detergent.

- g. After removing the body, the mortuary fridge, door, handles and floor should be cleaned with approved disinfectant such as 1% hypochlorite solution.
- h. The vehicle must be decontaminated after the transfer of the body.

## REFERENCES

1. Center for Disease Control and Prevention (2018). Criteria for Return to Work for Health care Personnel with Confirmed or Suspected COVID-19 (Interim Guidance). Available on: [https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhealthcare-facilities%2Fhcp-return-work.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhealthcare-facilities%2Fhcp-return-work.html) (accessed 21/08/2020).
2. Center for Disease Control and Prevention (2020). Interim, United States Guidance for Risk-Assessment, and Public Health Management of Health Care Personnel with Potential Exposure in a Health Care Setting to Patients with Coronavirus Disease (COVID-19). Available on: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html> (accessed 21/08/2020).
3. Centers for Disease Control and Prevention (2020). Coronavirus Disease 2019 (COVID-19) CDC Diagnostic Test for COVID-19. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/lab/testing.html> (accessed on 21/08/2020).
4. Centers for Disease Control and Prevention (2020). Coronavirus Disease 2019 (COVID-19) SARS-CoV-2 Viral Culturing at CDC. Available on: <https://www.cdc.gov/coronavirus/2019-ncov/lab/grows-virus-cell-culture.html> (accessed on 21/08/2020).
5. Centers of Disease Control and Prevention (2019). Coronavirus. Available on: <https://www.cdc.gov/coronavirus/about/index.html> (accessed 21/08/2020).

6. Department of Health Abu Dhabi (2020). Circular No. (44) Regarding Compliance with Laboratories Requirements and Additional Guidelines on COVID-19 Test Indeterminate Results.
7. Department of Health Abu Dhabi (2020). Circular No. (80) Regarding COVID-19 Guideline for Healthcare Professionals in Abu Dhabi.
8. Dubai Health Authority (2020). Circular regarding Standards for Testing Novel Corona Virus COVID -19.
9. Dubai Health Authority (2020). [Guidelines on the Management of Quarantine and Isolation Institutional Facilities \(Non-Hospital\) for COVID-19.](https://www.dha.gov.ae/en/HealthRegulation/Documents/Guidelines%20on%20the%20Management%20of%20Quarantine%20and%20Isolation%20Institutional%20Facilities%20(Non-Hospital)%20for%20Novel%20Coronavirus%20(COVID-19).pdf) May, (2020) Available at: [https://www.dha.gov.ae/en/HealthRegulation/Documents/Guidelines%20on%20the%20Management%20of%20Quarantine%20and%20Isolation%20Institutional%20Facilities%20\(Non-Hospital\)%20for%20Novel%20Coronavirus%20\(COVID-19\).pdf](https://www.dha.gov.ae/en/HealthRegulation/Documents/Guidelines%20on%20the%20Management%20of%20Quarantine%20and%20Isolation%20Institutional%20Facilities%20(Non-Hospital)%20for%20Novel%20Coronavirus%20(COVID-19).pdf) (accessed on 21/08/2020).
10. Dubai Health Authority. Case Definition of Suspected COVID-19 Cases. Available on: [https://www.dha.gov.ae/en/HealthRegulation/Documents/updated%20case%20definition%2030%20march\\_Final.pdf](https://www.dha.gov.ae/en/HealthRegulation/Documents/updated%20case%20definition%2030%20march_Final.pdf) (accessed 21/08/2020).
11. Dubai Health Authority. National Guidelines for Clinical Management and Treatment of COVID-19; April 3rd, 2020, Version 2. Available on: <https://www.dha.gov.ae/en/HealthRegulation/Documents/COVID%20National%20Guidelines%20FINAL%2018%20March.pdf> (accessed 21/08/2020).

12. Ministry of Health and Prevention (2020). Guidelines for Contact Tracing of COVID-19

Positive Cases. April 21, (2020). Available at:

<https://www.dha.gov.ae/en/HealthRegulation/Documents/دليل%20فحص%20المخالط.pdf> (accessed on 21/08/2020).

13. Ministry of Health and Prevention (2020). National Guidelines for Clinical Management and Treatment of COVID-19. 10<sup>th</sup> June 2020, Version 4.1.

14. Ministry of Health and Prevention (2020). Guidelines for Clinical Management of

Critically ill COVID-19 patient. Available at:

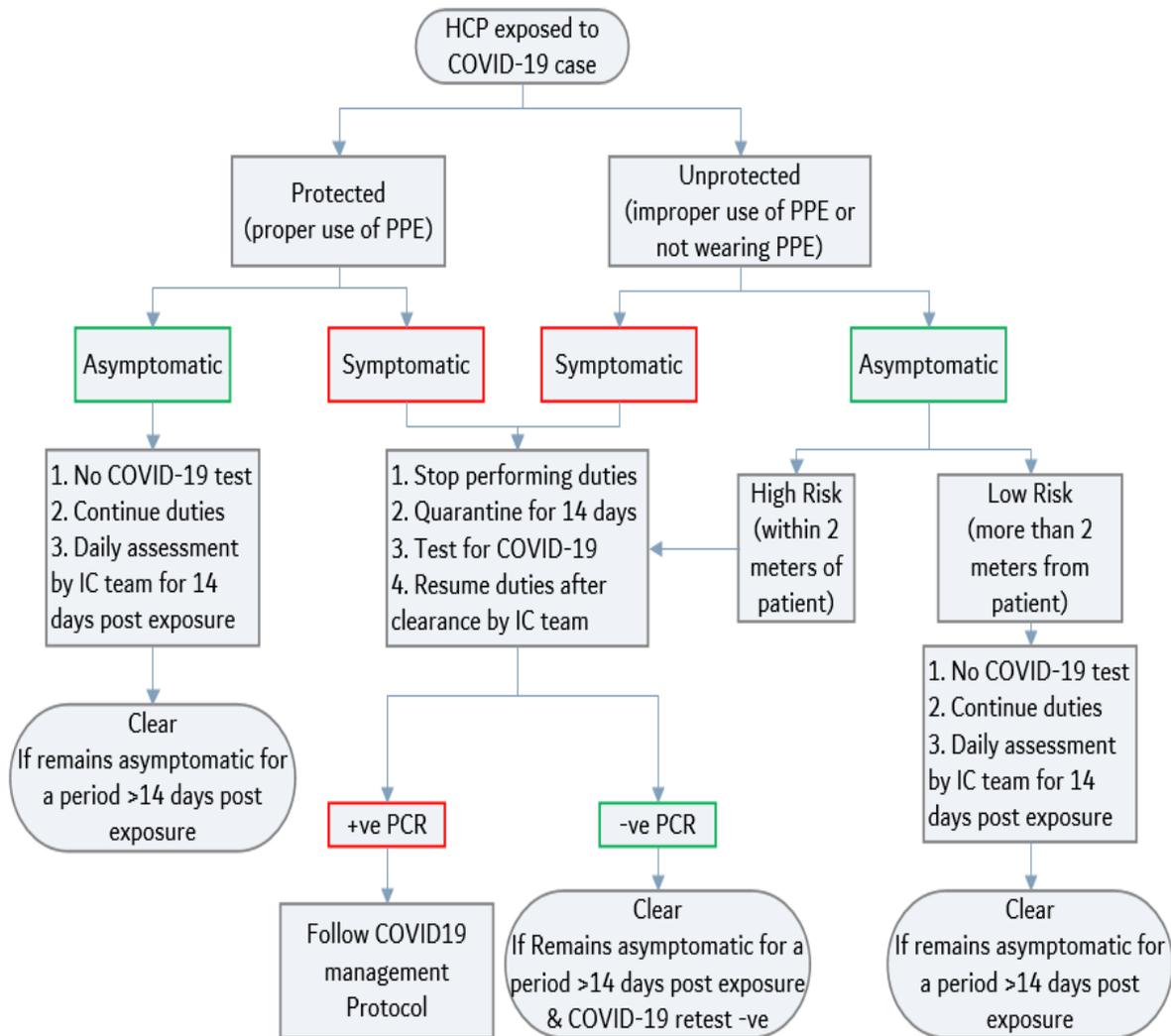
<https://www.dha.gov.ae/en/HealthRegulation/Documents/Clinical%20Managment%20of%20Critically%20ill%20%20COVID-19%20patient%20Version%201.pdf>

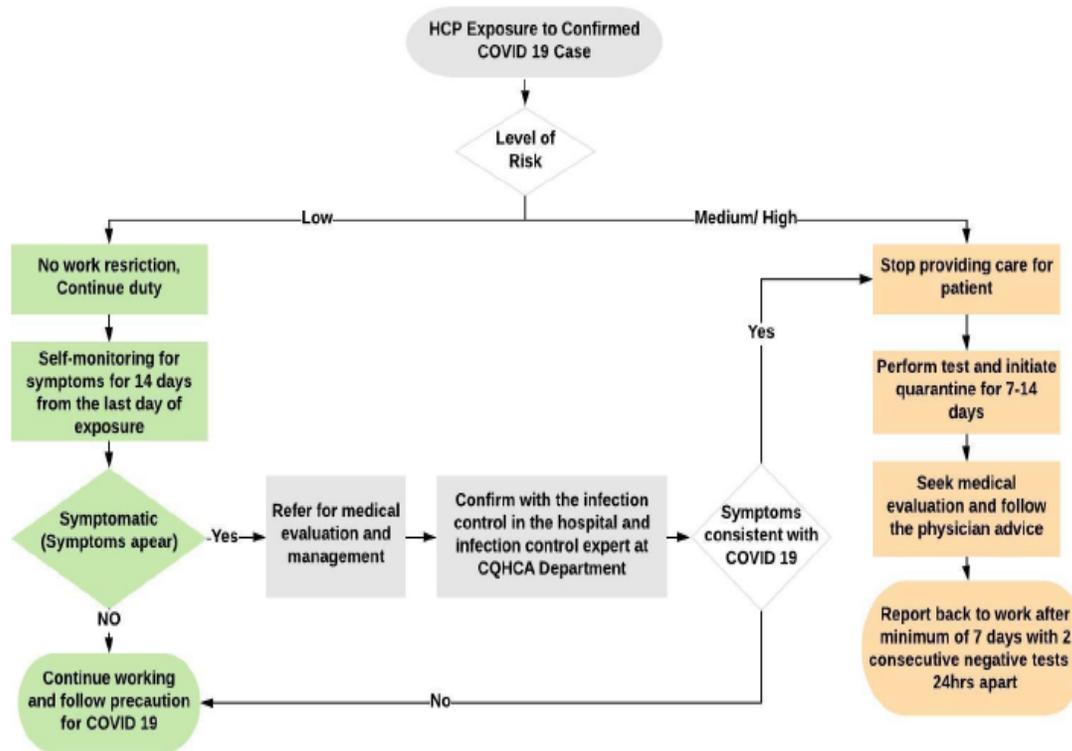
(accessed on 21/08/2020).

## APPENDICES

### APPENDIX 1: PROTOCOL ON THE MANAGEMENT OF HEALTHCARE PROFESSIONALS

#### EXPOSURE TO COVID-19 (ADAPTED FROM MOHAP)





**High-risk exposures:**HCP who have had prolonged close contact withpatients with COVID-19 who were not wearing a facemaskwhile HCP nose and mouth were exposedto material potentially infectious with the virus causing COVID-19.

**Medium-risk exposures:**HCP who had prolonged close contact withpatients with COVID-19 who were wearing a facemaskwhile HCP nose and mouth were exposedto material potentially infectious with the virus causing COVID-19.

**Low-risk exposures:**brief interactions with patients with COVID-19 or prolonged close contact withpatients who were wearing a facemaskfor source controlwhile HCP were wearing a facemask or respirator.

\* quarantine Ideally for 14 days, but if staff shortage may reduce to at least7 days

**Note:** The health facility occupational health practitioner must conduct exposure risk assessment.



## APPENDIX 2: EPIDEMIOLOGIC RISK CLASSIFICATION

Asymptomatic Healthcare Personnel Following Exposure to Patients with COVID-19, or associated secretions or excretions in a healthcare setting, and their associated monitoring and recommended work restrictions (adapted from MOHAP)

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
<b>Prolonged close contact with a COVID-19 patient who was wearing a facemask (i.e., source control)</b>			
HCP PPE: None	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection	Low	Self with delegated supervision	None
HCP PPE: Not wearing gown or gloves <sup>a</sup>	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator)	Low	Self with delegated supervision	None



Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
<b>Prolonged close contact with a COVID-19 patient who was not wearing a facemask (i.e., no source control)</b>			
HCP PPE: None	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection <sup>b</sup>	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing gown or gloves <sup>a,b</sup>	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator) <sup>b</sup>	Low	Self with delegated supervision	None

HCP=healthcare personnel; PPE=personal protective equipment

<sup>a</sup>The risk category for these rows would be elevated by one level if HCP had extensive body contact with the patients (e.g., rolling the patient).

<sup>b</sup>The risk category for these rows would be elevated by one level if HCP performed or were present for a procedure likely to generate higher concentrations of respiratory secretions or aerosols (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction). For example, HCP who were wearing a gown, gloves, eye protection and a facemask (instead of a respirator) during an aerosol-generating procedure would be considered to have a medium-risk exposure.