

**OPERATIONAL PLAN OF
THE MINISTRY OF HEALTH
AND WELLNESS ON NOVEL
CORONAVIRUS
(COVID-19)**

Ministry of Health and Wellness January 2020

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Executive Summary

A novel coronavirus (COVID-19) was identified as a causative virus for cases of pneumonia in Wuhan City, Hubei Province of China on 31st of December 2019.

The Government of Mauritius has formulated an Operational Plan, specifically tailored to the novel coronavirus (COVID-19) in order to maximize containment of the virus, minimize its impact and ensure continuity of health care and other essential services for the enhanced surveillance and control of the COVID-19 in the event that the virus is imported to Mauritius. The plan includes an intersectoral committee comprising the Ministry of Health and Wellness with other relevant ministries and stakeholders. It is chaired by the Honourable Minister of Health and Wellness to ensure smooth coordination and implementation of the plan.

The plan serves as a blueprint for actions and formulation of standard operating procedures (SOP) by all stakeholders. The plan consists of five strategic directions: (1) planning and coordination, (2) situation monitoring and assessment, (3) prevention and containment, (4) health service response, and (5) communications. It presents a collection of protocols to be used by all stakeholders involved in controlling the disease.

While a large component of the plan has already been implemented, additional resources will be required for hospital infrastructure and laboratory, manpower, supplies, equipment, and logistics support.

1 Introduction

On 31 December 2019, WHO was alerted to several cases of pneumonia in Wuhan City, Hubei Province of China. The virus did not match any other known virus.

One week later, on 7 January, Chinese authorities confirmed that they had identified a new virus. The new virus is a coronavirus, which is a family of viruses that include the common cold, and viruses such as SARS and MERS. This new virus was temporarily termed as “2019-nCoV” then later was named **COVID-19** by WHO.

WHO has been working with Chinese authorities and global experts to learn more about the virus, how it affects the people who are sick with it, how they can be treated, and what countries can do to respond.

This document outlines the Operational Plan of the Government of Mauritius. Its purpose is to provide guidance to all the stakeholders involved in identifying patients who meet the case definition of a suspected case of disease associated with a novel Coronavirus identified in China (the first case detected in Wuhan city on 31st December 2019).

Under the new International Health Regulation (IHR 2005), Member States are required to report any novel virus to the World Health Organization who will also determine whether the criteria for a Public Health Emergency of International Concern (PHEIC) have been met.

With increased travel links to China, the eventual arrival of this virus might be possible in Mauritius. One way to mitigate the negative consequences of the COVID-19 is to take timely public health measures that have been defined in the Operational Plan which serves as a blueprint for actions and formulation of standard operating procedures (SOP) by all stake-holders.

2 PART I. ACTIONS TO BE TAKEN WHEN THERE IS NO IMPORTED OR INDIGENOUS NOVEL-CORONAVIRUS (COVID-19) IN MAURITIUS

2.1 Coordination

2.1.1 Action 1: Constitute an intersectoral committee headed by the Ministry of Health and Wellness

The intersectoral committee for the implementation of the Operational Plan will be headed by the Honorable Minister of Health and Wellness. The members constituting this committee are as follows:

- Hon. Minister of Health & Wellness-Chairperson
- Senior Chief Executive
- Permanent Secretary
- Director General Health Services
- Director Health Services, Public Health
- Director Health Services, Curative
- Director Health Services, Training
- Director Health Services, Primary Health and NCD
- Director Health Services, HIV and Procurement
- Regional Health Director, SSRN Hospital
- Regional Health Director, Victoria Hospital
- Regional Health Director, Flacq Hospital
- Regional Health Director, J. Nehru Hospital
- Regional Health Director, Dr A. G. Jeetoo Hospital
- Rodrigues Health Director
- Chief Hospital Administrator
- Director of Pharmaceutical Services
- Director of Nursing
- Director of Public Health and Food Safety
- Deputy Permanent Secretary, Public Health
- Assistant Permanent Secretary, Public Health
- Manager, Financial Operations (Finance)
- Consultant Pathology/Virology
- Regional Public Health Superintendent, CDCU
- Regional Public Health Superintendent (North)
- Regional Public Health Superintendent (Plaines Wilhems)
- Regional Public Health Superintendent (Moka/Flacq)
- Regional Public Health Superintendent (South)
- Regional Public Health Superintendent (Port Louis)
- Statistician CDCU

- Manager Operating Services
- Chief Health Information Education Communication (HIEC) Officer
- Director Environmental Health Engineering Unit (EHEU)
- Commissioner of Mauritius Police Force
- Director of Civil Aviation (Department Under the aegis of the Prime Minister's Office External Communication Division)
- Director General of Mauritius Port Authority
- President of Private Clinics' Association
- Chief Executive Officer of Airports of Mauritius Ltd (AML)
- Director of Airport Terminal Operations Ltd (ATOL)
- Director of Mauritius Tourism Authority
- Principal Public Health and Food Safety Inspector of Airport
- Principal Public Health and Food Safety Inspector of Port
- Manager of Financial Operations
- Director of SAMU
- Commanding Officer of Special Mobile Force
- World Health Organisation, Country Representative
-

2.2 Roles and Responsibilities of Stakeholders

- ***Commissioner of Police***
For collaboration when evacuating suspected cases at the Airport and in the community.
- ***Director of Civil Aviation & Director MPA***
To liaise with airlines. AML and ATOL for implementation of directives at Airport eg communication, sensitisation and provide support to health staff operating on Airport premises.
- ***President of Private Clinic***
To notify of any suspected cases for appropriate actions to be taken.
- ***Chief Executive AML & ATOL***
To provide support e.g screening of passengers and fast track of suspected passengers to the designated ambulance.
- ***WHO Representative***
For support with equipment, laboratory and other activities.
- ***Passport Immigration Office (PIO)***
To seek the collaboration of the PIO at airport/port for tracking passengers who have given false addresses at the Health Desk and other information relating to the passengers

- **Air Mauritius**
National carrier operating direct flights to China
To inform of any sick person on board before disembarkation of passengers
- **Emirates**
To inform of any sick person on board before disembarkation of passengers
- **Director Mauritius Tourism Authority /AHRIM**
 - Support national awareness campaign
 - Sensitize hotels for the need to identify cases within their premises to respective Health Offices for follow up by the Ministry of Health and Wellness
- **Ministry of Foreign Affairs**
To liaise with the Chinese embassy and other embassies in other countries if needed concerning directives for tourists who have visited China recently and also for information on particular passengers if required.
- **PMO**
Since this is a national priority, the support of the PMO is required in all aspects, relating to the operational plan. (e.g with PIO at the airport, law and order in the community if required, and all activities needing clearance form PMO.
- **Business sector**
 - Support awareness campaign
 - To inform the health authorizes of any sick persons among migrant workers from People's Republic of China

2.2.1 Action 1: Establish communication strategy within the committee

The SOP for communication shall be as follows:

- The minister shall be at the central command level and issue any directives
- Any other directive will be issued by management meeting, after consultation with the minister
- Communication with the media shall be channeled via press attaché
- Information pertaining to the importation of cases, outbreaks will be channeled from the site of occurrence to the Director Health Services of Public Health and RPHS of CDCU by phone and fax.
- The Director Health Services of Public Health will inform the minister right away and also the Director General Health Services and Senior Chief Executive.

2.2.2 Action 2: Constitute a management committee

A management committee at the Ministry of Health and Wellness will monitor the daily activities pertaining to the operational plan and effect coordination between the different stakeholders to review the situation and issue interim guidelines and SOPs. The members of the management committee are:

- Director Health Services of Public Health
- Director of Pharmaceutical Services
- Director of Public Health and Food Safety
- Director of Nursing
- Regional Public health superintendent, CDCU
- Chief HIEC Officer
- Deputy Permanent Secretary, Public Health
- Assistant Permanent Secretary, Public Health
- Manager of Financial Operations (Finance)
- Community Physicians, CDCU
- Epidemiologist, CDCU
- Statistician, CDCU

2.2.3 Action 3: Activation of an Incident Management System (Emergency Operation Centre)

The communicable disease control unit ,CDCU, will serve as the Incident Management Centre headed by the Director Health Services (Incident Manager).The unit will have the following functions:

- 1.To develop an operational plan for COVID-19
- 2.Collection and analysis o data on the epidemiology of the disease in the People’s Republic of China and other countries.
- 3.Identification of high risk countries for specific public health measures
- 4.Monitoring of activity at a designated hospital and the Quarantine centres.
- 5.Monitoring of surveillance at the port,airport and in the community.
- 6.Strengthening laboratoty activity in the detection of COVID-19.
7. Stockpiling of personal protective equipments.

8. Activate Rapid Response Team in the periphery through Regional Public Health Superintendents.
9. Respond to calls on hotline 8924.
10. Facilitate logistics in the transfer of passengers or suspected cases or contact to appropriate locations.
11. Coordinate all activities on field relating to confirmed cases and contact tracing.
12. Collection of all data pertaining to cases of COVID-19 and contacts.
13. Liaising with the private health sectors in sharing of informations, guidelines and appropriate actions.
14. Elaborate a communication strategy in COVID-19.
15. Ensure the IPC guidelines are being implemented.
16. Preparation and submission of reports for the Ministry.

2.3 Health sector readiness

The health sector must be in a state of readiness to cope with the eventual importation and public health consequences or a case of COVID-19. The main preparedness must be in terms of

1. Increasing surge capacity of health facilities
2. Stockpiling of medicine and supply
3. Capacity building of Health Manpower
4. Develop epidemiological and laboratory surveillance tools

2.3.1 Action 1: Increasing surge capacity of health facilities

The Regional Hospital of Souillac (now known as district hospital) is the designated center for the management of persons under clinical investigations or infected patients. An isolation ward with twelve beds and a quarantine ward with 48 beds have been set up at New Souillac Hospital. Further expansion in the bed capacity would be undertaken when the need arises. In addition, each of the 5 regional hospitals will be equipped to have at least 1 isolation room. Anse la Raie and Pointe Jerome

Youth Centres have been improvised as additional quarantine centres as determined by the Ministry of Health and Wellness

2.3.2 Action 2: Stockpiling of medicine and supply

An assessment of the available stock of medicine, supplies, and equipment is being carried out as follows:

Supply Checklist for Pre-Positioning

- Masks – surgical or procedure masks
- Masks – particulate respirators (e.g. NIOSH-certified N95, EU FFP2 or equivalent masks)
- Gloves – latex, examination gloves, single-use, non-sterile for clinical use (sizes: S, M, L)
- Protective eyewear if possible (face shield)
- Hand-washing soap or hand-disinfectant/alcohol-based gels
- Gowns (plastic apron, disposable)
- Biohazard plastic bags for used personal protective equipment
- Boxes for sharp objects
- Disinfectants for health-care setting
- Rubber gloves and boots (reusable) for environmental cleaning and burial teams
- Stretchers, body-bags for burial teams
- Antibiotic medications
- Intravenous fluids/cannulae/giving sets

It must be planned to stockpile supplies for over a 2-3 months' period.

2.3.3 Action 3: Build the capacity of health manpower

A team of doctors and health care personnel including nurses, health inspectors and technicians must be trained in the familiarity and competency in the use of all protocols.

In particular, training must include the following areas:

1. Implementation of enhanced surveillance,
2. Detection, investigation and management of suspected and confirmed cases of Coronavirus
3. Proper use of PPE
4. Bio-safety for patients handling,
5. Environmental hygiene practices- Waste management and disinfection

2.3.4 Action 4: Develop epidemiological and laboratory surveillance tools

Epidemiological surveillance Tools

The main epidemiological tools should be:

1. Standard case definition
2. Standard data collection form for a patient under investigation

3. Database for handling and analysis of patient data

2.4 Case definition of a suspected case of novel coronavirus 2019

1. Severe acute respiratory infection in a person, with history of fever and cough, with no other etiology that fully explains the clinical presentation (clinicians should also be alert to the possibility of atypical presentations in patients who are immunocompromised);

AND any of the following:

a. a history of travel to or a person who lived in People's Republic of China or other high-risk countries in the 14 days prior to symptom onset; or

b. the disease occurs in a health care worker who has been working in an environment where patients with severe acute respiratory infections are being cared for, without regard to the place of residence or history of travel.

2. The person develops an unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment, without regard to the place of residence or history of travel.

3. A person with acute respiratory illness of any degree of severity who, within 14 days before the onset of illness, had any of the following exposures:

a. close physical contact with a confirmed case of COVID-19 infection; or

b. a healthcare facility in a country where hospital-associated COVID-19 infections have been reported; or

c. visiting or working in a live animal market in People's Republic of China or any high-risk country, or

d. direct contact with animals (if the animal source is identified) in People's Republic of China or any high-risk country where the COVID-19 is known to be circulating.

4. **Confirmed case:** a confirmed case is a person who tests positive to a specific COVID-19 by PCR laboratory test.

2.4.1 Action 1: Collection of specimens and laboratory diagnosis of 2019 novel coronavirus (COVID-19) at Central Health Laboratory

Pre-requisites:

- Specimen to be collected only for suspected case fulfilling clinical and epidemiological criteria as per WHO interim guidance dated 21 Jan 2020
- Case investigation report form filled with all required details must accompany the specimen

Type of specimens required:

- Expecterated sputum collected in sputum container
- Throat swab collected in viral transport medium

Number of specimens required:

Preferably two (2) per suspected case

Transport:

Specimens must be sent to Central Health Laboratory as soon as possible.

Laboratory confirmation:

Tests for COVID-19 will be carried at the Central Health Laboratory, Victoria Hospital.

2.4.2 Action 2: Ensuring infection control procedures

The virus is primarily transmitted by respiratory means. Strict infection control procedures to be enforced at all levels of the Health System

2.4.3 Action 3: Develop Strategy for Health Education, Information and Communication

Sensitization campaigns on COVID-19 transmission mode and precautionary measures for prevention to be conducted for:

- 1) Health care professional, and
- 2) Relevant airport personnel including immigration, police, customs, AML staff, baggage handlers, and other ancillary staff who are directly or indirectly involved in the handling of COVID-19 patients or patients potentially infected materials. In addition, medical staff to be sensitized through CME.

3 PART II: HEALTH SECTOR RESPONSE DURING ARRIVAL OF POTENTIAL CASES

3.1 Actions to be taken at Airport

3.1.1 Action 1: When there is a sick or suspected persons on the plane

Passengers or crew members falling into this category include those who have fever, cough /breathing difficulty.

The SOP for handling a sick or suspected person on board of the plane

The SOP for handling a sick or suspected person on board of the plane will be jointly implemented with the existing AML and MOH&W procedures as follow. These are illustrated in figure 1.

1. The commander informs the control tower and implements IHR and IACQ protocol onboard
 - a) The commander puts a mask on the person and enforces respiratory etiquette and cough hygiene.
 - b) The sick person is segregated from the other passengers
 - c) The close contacts are identified-three rows behind, three rows in front and three passengers on either side
2. The control tower informs the airport doctor
3. The aircraft is parked at a secure parking bay
4. The RPHS of the region or on call is immediately notified of the case to initiate appropriate actions.
5. Health authorities (airport medical doctor, nursing officer, and Senior Health Inspectors) board the plane
6. Other passengers remain on board for assessment
7. Medical assessment is conducted by the airport medical team
8. If subjects are not found to be sick
 - a. They complete the health declaration card
 - b. Subjects are followed up in the community at the regional health office level
 - c. If symptoms develop, subjects are admitted to the isolation ward of New Souillac hospital (now known as district hospital) for investigation and treatment.
9. Close contacts of the case are sent for quarantine after assessment.

3.1.2 Action 2: When passengers showing signs of cough and fever upon arrival from high-risk countries after disembarking from the aircraft

Implement SOP for triage of passengers

1. Those with mild cough and fever on board
2. Those who are suspected in the terminal by the thermal scanner, and
3. Those who do not have any signs and symptoms

Actions for categories 1 and 2 passengers

These categories include passengers with cough and fever and those who are picked by the thermal scanner upon arrival, including the contacts of the suspected cases in the terminal. They will be channeled according to procedures listed in Figure 2. In particular; the steps are:

1. Passengers, followed by close contacts, irrespective of their nationality, are segregated in the designated waiting room in the arrival lounge for examination by the airport doctor. The RPHS of the region or on call is immediately notified. The passengers are then admitted at the isolation wards of the designated hospital for further investigation and management as appropriate.
2. If subjects DO NOT meet the case definition of suspected criteria,
 - a) Compulsory completion of Health Declaration Form is undertaken
 - b) Health information brochure on subsequent steps to take in case of symptoms, including the hotline numbers is given to the passengers at health desk.
 - c) Health authorities Senior Health Inspectors follow up all passengers for 14 days' post-arrival.
3. Close contacts, three rows in front, three rows at the back and three passengers on either side, are identified and put under surveillance

3.1.3 Actions to be taken for non-sick passengers arriving from high-risk countries

Passengers, irrespective of their nationality, coming from high-risk countries as determined by the Ministry of Health and Wellness¹, who are not showing any signs or symptoms suggestive of the infection at the airport (fever or cough) would be allowed to leave the airport but placed under surveillance at the designated hospital or in the community as determined by the Ministry of Health and Wellness for a period of 14 days subsequent to the epidemiology of the disease internationally.

¹ China, South Korea, 3 Provinces of Italy (Lombardy, Veneto and Emilia Romagna)

This policy is subject to change following periodic reviews of the evolution of the disease in China or other high-risk countries and decisions taken accordingly concerning incoming passengers.

Guidelines for precautionary measures to be taken by airport personnel and the infection prevention and control protocol for isolation ward at the New Souillac Hospital (now known as district hospital) are as annexed.

3.2 Actions to be taken at Port

1. Boarding of ships and cruises are checked by the Senior Public Health and Food Safety Inspector with verification of the Maritime Declaration Certificate and the last 10 ports visited; and
2. Collection of the Health Declaration Form, and eliciting information about the health status of the travelers, as well as on the possible risk of exposure to the virus while in the high risk country, at the Health Counter before proceeding to the Immigration Counter of the *Aurelie Perrine* Passenger Terminal at the Port.
3. All passengers and crew members of the ships or cruise vessels would have their temperature recorded manually by the health staff before disembarkation. Passengers and crew members of the cruise vessels also undergo screening by a thermal scanner at the cruise terminal.

Members of the staff at the Port Health Offices verbally inform the respective Regional Health Offices and the respective Principal Public Health and Food Safety Inspector at the earliest, of incoming passengers from high-risk countries. In case any passenger is showing signs and symptoms of the disease, the RPHS of the region or on call is immediately notified. The rapid response team will be activated if there is a need to send the passenger to the designated hospital. The passenger is then admitted to the isolation ward of the designated hospital for further investigation and management as appropriate.

3.2.1 Procedure for Boarding of Vessel at Port

1. (i) All Agents of incoming vessels have to submit the following information by email 24 hours before the arrival of any vessel at Port Louis Harbour:-

- a) The Maritime Declaration of Health;
- b) The 10 last ports of call of the vessels;
- c) Any specific crew change undertaken within the last 14 days prior to arrival to Port Louis.

Based on above information no vessel should be allowed to enter port limits if it has within last 14 days:

- a) called in any port of China;
- b) on signer/passenger from china;
- c) on signer/passenger who visited china.

Upon satisfaction by the Health Authority, green light is granted and the vessel is allowed to enter port limits for authorised operations prior to free pratique.

Operational procedures for boarding of cargo vessels are as follows:

- a) Only one SPHFSI or PHFSI is scheduled for daily boarding of all vessels according to a roster.
- b) Notification of arrival by Mauritius Port Authority (MPA)/Shipping Agent.
- c) The vessel is boarded by the Public Health and Food Safety Inspector (PHFSI) with Objectives:
 - To ensure that incoming passengers and crew are in good health.
 - To ensure that no condition exists on board which may lead to spread of diseases.
- a) PHFSI to ensure that the Quarantine Flag is at post before boarding of ship.
- b) The PHFSI meet the Ship Master and request him to produce the maritime declaration of health, vaccination list, last ports of call list, crew list (including date of crew change), passenger list, list of narcotics, nil list, ship sanitation control certificate or ship sanitation control exemption certificate and cargo list for food in bulk that require fumigation.
- c) The PHFSI verifies all documents.
- d) If satisfied gives free pratique and order the Ship Master on-board to lower down the Yellow Flag.
- e) If not satisfied and suspect infectious disease on board, contacts RPHS on call for protocol to be followed and maintained Yellow Flag. Once protocol completed, free pratique is given and Yellow Flag is lowered.

3.3 Roles of Senior Health Inspector in Event Management

According to the protocol established with AML, an event manager is needed from the Ministry of Health and Wellness to coordinate health-related activities. It is the responsibility of the SHI to act as the event manager for the Ministry of Health and Wellness.

4 PART III: HEALTH SECTOR RESPONSE FOR CONTAINMENT OF SUSPECTED / CONFIRMED CASES

If a case of COVID-19 is suspected or confirmed either from a Government, private health facility or in the community, the following actions will be undertaken;

4.1 Action 1: Activate the management committee

The Ministry of Health and Wellness will immediately activate the Management Committee headed by the Director Health Services of Public Health. The management committee will work with the Prime Minister's Office and will issue interim guidelines and SOPs to guide all actions.

4.2 Action 2: Isolation of cases and Quarantine of contacts

All suspected cases are to be notified to the RPHS of the region or on-call who will liaise with the Medical Superintendent or Duty Manager of the Regional Hospital to activate the Rapid Response Team (RRT). The RRT constitutes one medical officer, one nursing officer and one Public Health and Food Safety Inspector in an ambulance with PPE, hand sanitizer, icebox and specimen collecting kit. The RRT will visit the sick passengers, assess the passenger and inform RPHS to decide for a referral to the designated hospital. The RPHS will attend to the newly admitted patient at the designated hospital. The Medical Specialist on call will be informed to attend to the patient for investigation and treatment. In case the patient is not admitted, specimens taken will be dispatched to Central Health Laboratory on the same day by the same ambulance after leaving the medical staff (RRT) at the regional hospital. RPHS should ensure that specimens have reached the Virology Laboratory at Candos.

- Passengers with symptoms of acute respiratory infection should be encouraged to practise cough etiquette and provide the patient with face masks.

- Contacts will be admitted to the Quarantine Ward of a designated hospital for observation and any investigation required.
- Surveillance should be ongoing for the 14 days even on Saturdays, Sundays and Public Holidays.
- All Regional Health Offices which are concerned with COVID-19 surveillance should remain open on Saturdays afternoon, Sundays and Public Holidays.
- Records to be updated daily and kept at the office level. However, on completion of surveillance. A return of the same should be forwarded to CDCU.

4.3 Action 3: Treatment of imported cases

The clinical management of the case will be undertaken by the Medical Consultant and other specialists at the designated hospital. To prevent infection among health care workers, standard safety procedures must be strictly observed during aerosol-generating procedures. These procedures include endotracheal intubation, nebulized medication administration, diagnostic sputum collection, airway suction, chest physical therapy, and positive pressure ventilation. Aerosol-generation procedures should be performed with full PPE. If splashing with blood or other body fluids is anticipated, a waterproof apron should be worn.

4.4 Action 4: Inform WHO under the IHR (2005) reporting requirement

The IHR National Focal Point will inform the WHO of any laboratory-confirmed case.

4.5 Action 5: contact tracing and zoning

All close contacts of the confirmed index case will be traced to institute public health control measures.

Close contacts are defined as:

Household setting: Living in the same household as a COVID-19 patient within a 14-day period after the onset of symptoms in the case under consideration.

Healthcare setting: either (i) a worker who provided direct clinical or personal care to or examined a symptomatic confirmed case or was within close vicinity of an aerosol-generating procedure AND who was not wearing full personal protective equipment (PPE) at the time; or (ii) a

visitor to the hospital who was not wearing PPE at the bedside of a confirmed case; full PPE is defined as correctly fitted high filtration mask (FFP3), gown, gloves and eye protection;

Another setting: any person who had prolonged (>15 minutes) face-to-face contact with a confirmed symptomatic case in any other enclosed setting.

Traveling together with COVID-19 patients in any kind of conveyance.

The management committee must meet to discuss the closure of school, hotels and other public places depending on the geographical location of the confirmed index case of a novel coronavirus in Mauritius and in keeping with WHO and best international practices.

4.6 Action 6: personal and environmental hygiene practices when handling infected cases.

Non-compliance with the basic level of infection control precautions, such as hand hygiene, appropriate use of facial protection (nose, mouth and eye protection) masking, cough etiquettes, cleaning and disinfection of contaminated equipment and surfaces, have resulted in nosocomial infections putting health care workers and others at risk.

- Initiate infection control precautions promptly when a COVID-19 infection is suspected
- Standard contact and droplet precautions should be the minimum to be used in all healthcare facilities when providing care for a suspected or confirmed COVID-19 infected patient.
- Respiratory hygiene and cough etiquette should be used by all patients with respiratory symptoms to prevent the transmission of pathogens.
- Perform hand hygiene practices before and after any patient contact and after contact with contaminated items, regardless of whether gloves are worn or not.
- HCWs that collect or transport clinical specimens should adhere to recommended infection control precautions in order to minimize the possibility of exposure to infection.
- Standard precautions are to be followed while transporting the patient to a health-care facility.
- Aerosol-generating procedures should be avoided as far as possible during transit.

5 PART IV: ACTIONS TO BE TAKEN WHEN LOCALIZED SECONDARY CASES OCCUR IN MAURITIUS

A secondary case is defined as a laboratory-confirmed case of COVID-19 in a person with no travel history to a COVID-19 endemic region. If this happens, this means that the virus is transmitting locally. When secondary cases of COVID-19 occur on the island, whether from the public or private health sector, the respective RPHS of the concerned region will coordinate all response with regard to transport, isolation and contact tracings.

5.1. Institute Mitigation measures to reduce the secondary transmission of the virus

5.1.1. Action 1: Isolation of cases

The secondary confirmed case will be isolated in the appropriate isolation ward and treatment started as well as environmental disinfection implemented.

Close contacts may be quarantined at the designated hospital as determined by the Ministry of Health and Wellness.

5.1.2. Action 2: Obligatory Quarantine of contacts

All close contacts will have to be tested for COVID-19 and the negative patient put under close surveillance for a period of 14 days.

Those found to be positive will need admission to the isolation ward at the designated hospital.

Close contact is defined as one of the following persons:

- Airplane setting: the aircraft passengers in the same row and the three rows in front and behind a symptomatic case and three passengers on either side.
- Household setting: any person who had prolonged (>15 minutes) face-to-face contact with the confirmed case(s) any time during the illness in a household setting;
- Healthcare setting: either (i) a worker who provided direct clinical or personal care to or examined a symptomatic confirmed case or was within close vicinity of an aerosol-generating procedure AND who was not wearing full personal protective equipment (PPE) at the time; or (ii) a visitor to the hospital who was not wearing PPE at the bedside of a confirmed case; full PPE is defined as correctly fitted high filtration mask (FFP3), gown, gloves and eye protection;
- Another setting: any person who had prolonged (>15 minutes) face-to-face contact with a confirmed symptomatic case in any other enclosed setting.

5.1.3. Action 3: personal and environmental hygiene practices when handling infected cases.

It is paramount to ensure good hospital practice to limit transmission by adhering to the following protocols:

- On hand washing
- On wearing and disposing of PPE
- On infection control for inpatient ward management
- On environmental hygiene

5.1.4. Action 4: zoning and social distancing.

The positive case will be isolated and social distancing will be practiced by requesting the close-relative and friends to avoid direct contact with the positive case or the close contacts. Closure of schools and prohibition of mass gathering may be anticipated.

5.1.5. Action 5: Enhanced Surveillance for the virus in Mauritius

Routine surveillance for Severe Acute Respiratory Infection (SARI) will be implemented and all subjects

meeting the SARI definition will be routinely tested for COVID-19. Surveillance for Influenza-like illness (ILI) is currently carried in selected government health facilities; the scope of this surveillance system has been extended to include SARI in government hospitals and would be extended to private facilities also.

5.1.6. Action 6: Increase Communication in the community

Health education messages will be modified to reflect the current status and disseminated more frequently on all communication media including radio, TV and press in common vernacular to educate the public for preventive measures. In addition, updated CME on risks, mode of transmission and preventive measures will be conducted for medical and paramedical staff working in government and private health facilities.

5.1.7. Action 7: Seek international assistance in controlling the virus

To quell the secondary transmission of the virus, international assistance with an expert in the field will be sought from WHO and the Global Health Program of the Centres for Disease Control and Prevention (CDC) in Atlanta Georgia, USA.

5.2. Coordination of Response

5.2.1. Action 1: Increased frequency of the intersectoral committee headed by the Ministry of Health and Wellness

The MOH&W will conduct a regular meeting for monitoring the situation and to advise on all activities, including updating of guidelines and SOPs.

5.2.2. Action 2: Regular meeting of the management committee

The management committee will meet daily to review the situation and actions taken and proposed for implementing any new measures for mitigation of the outbreak.

Figure 1: Actions to be taken when there is a sick or suspected persons on the plane

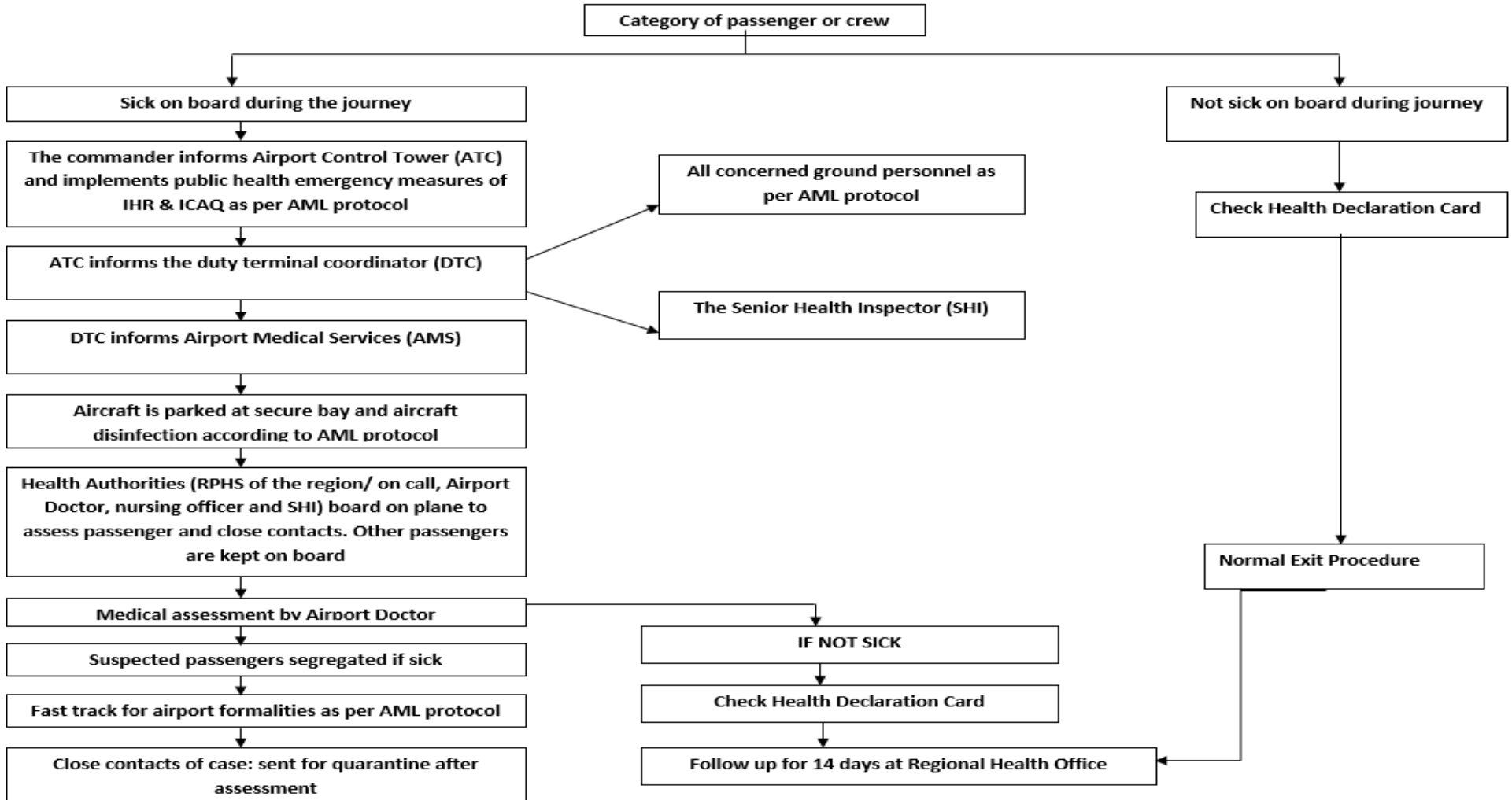


Figure 2: Actions to be taken for passengers showing signs and symptoms of cough and fever after disembarkation from the aircraft

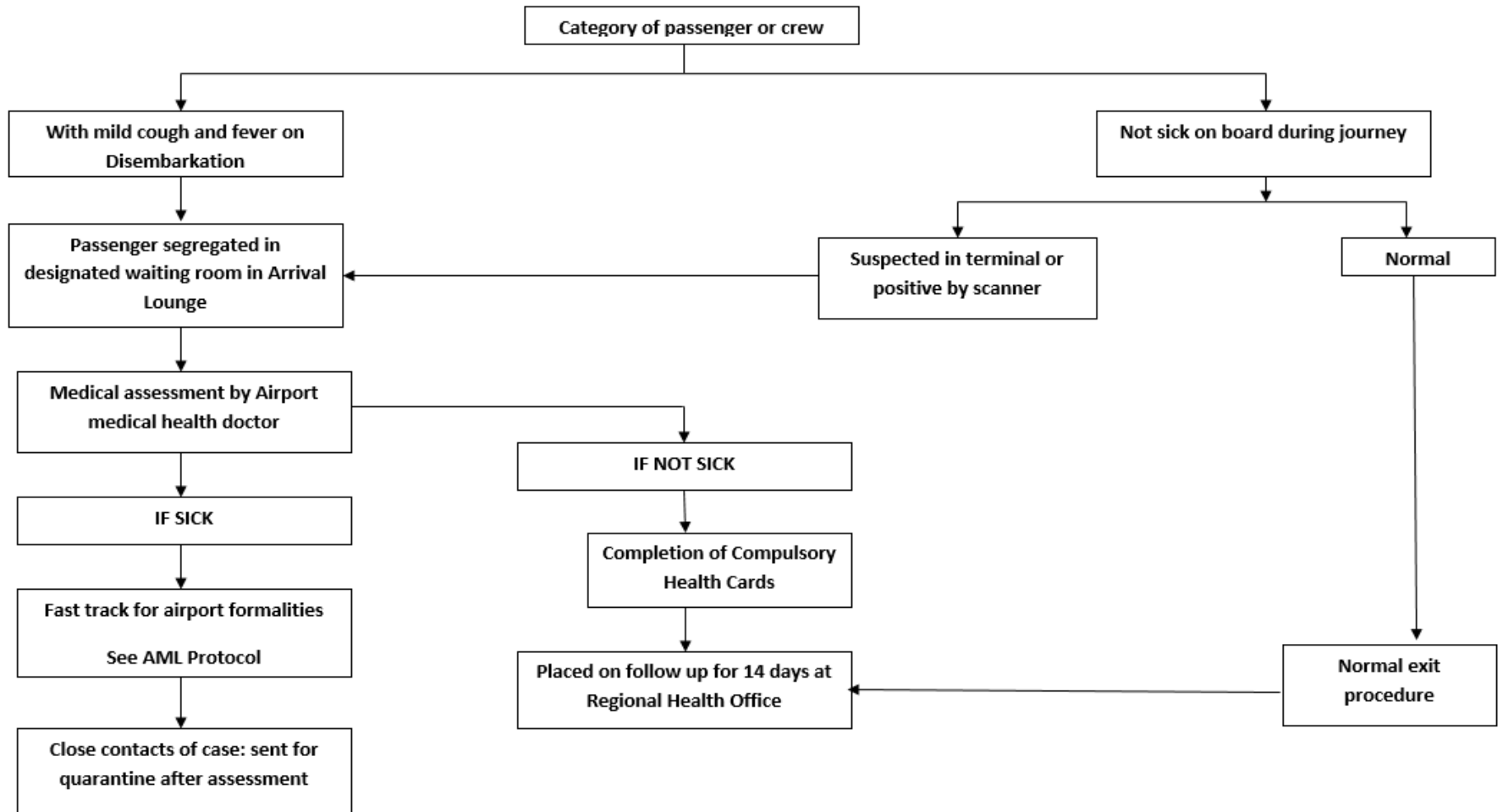


Figure 3: Actions to be taken for a suspected COVID-19 case at the Community Level

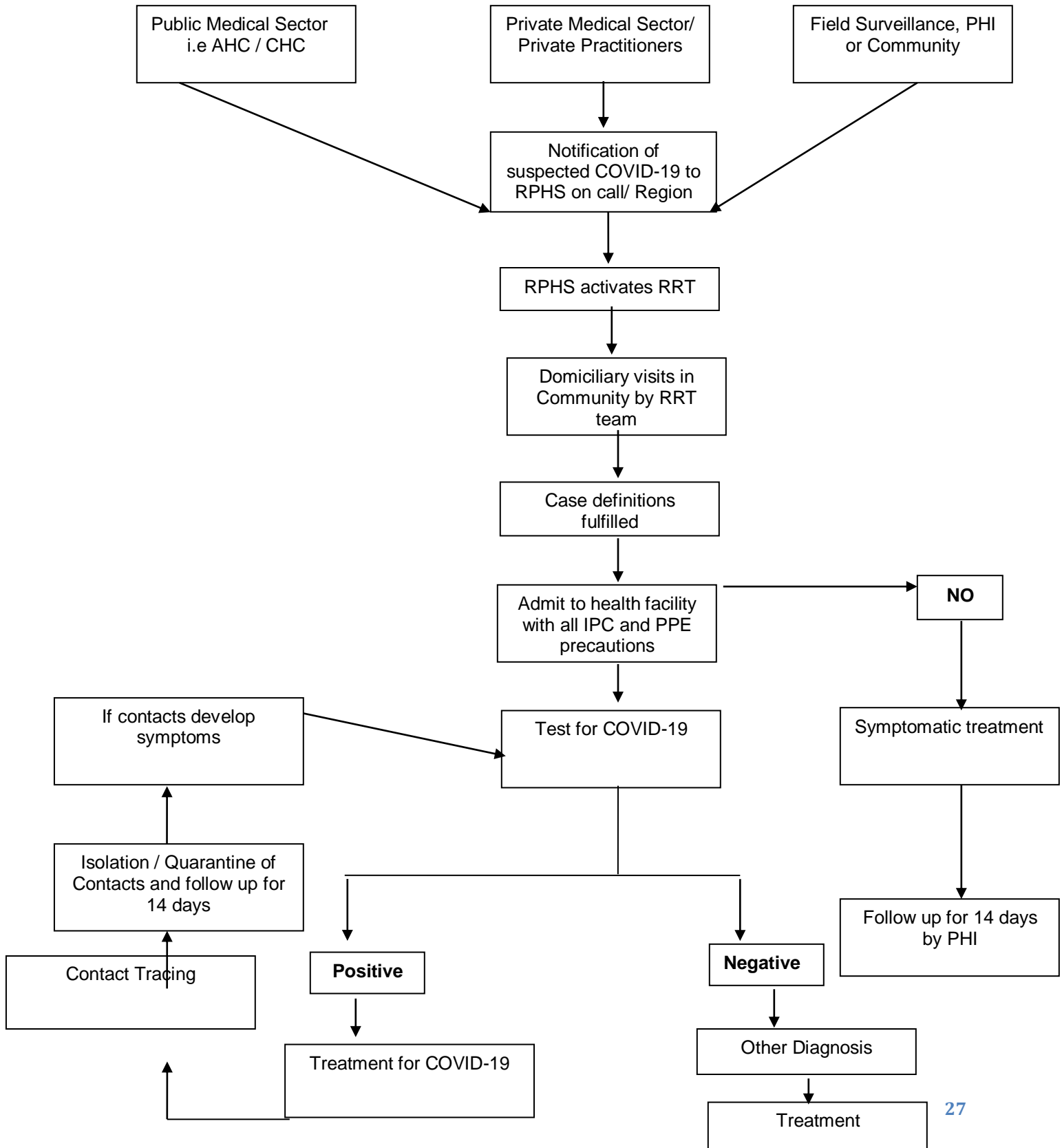


Figure 4: Procedure for Boarding of Vessel at Port

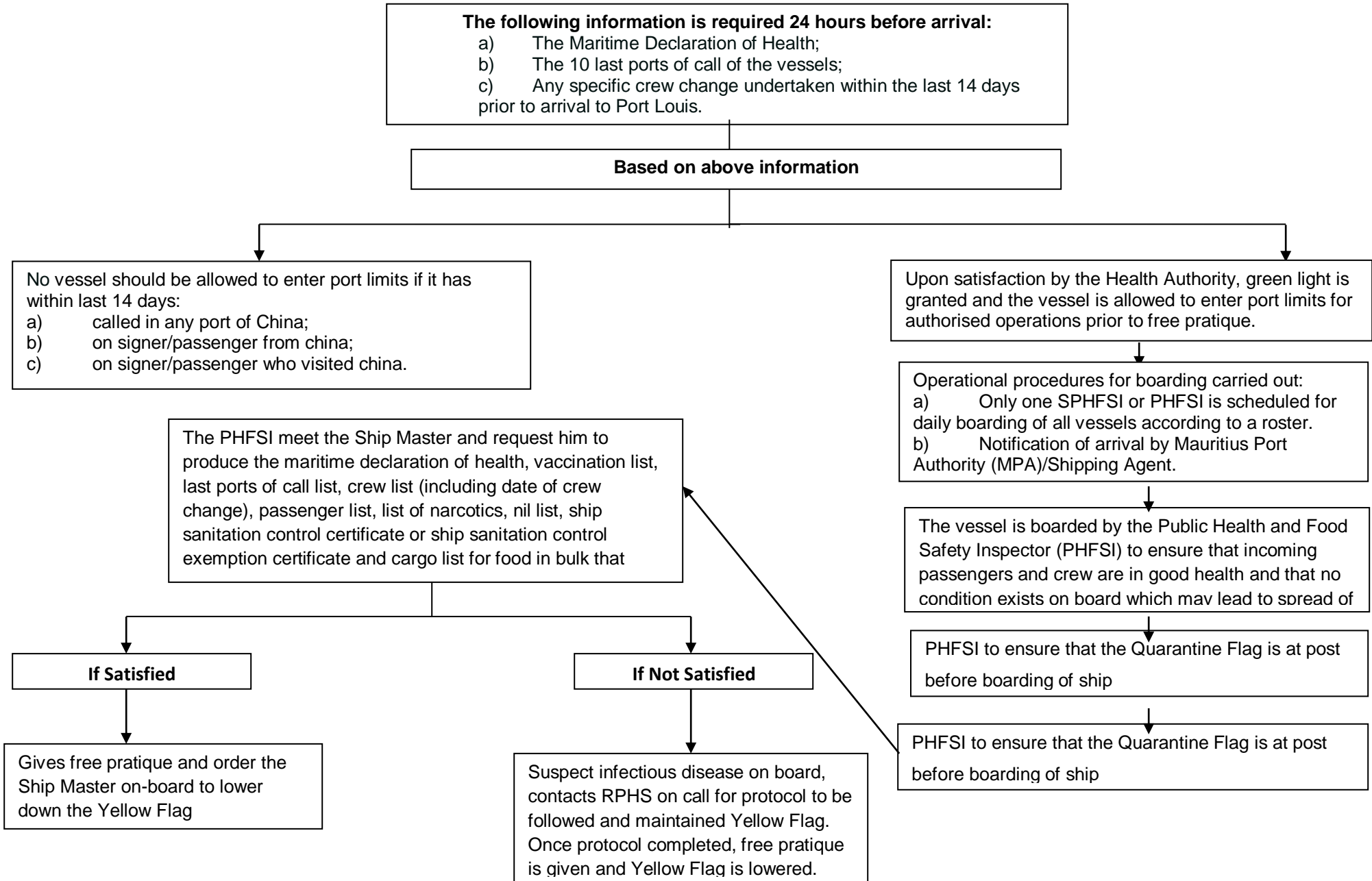


Figure 5. Role of SHI in event Management at the airport

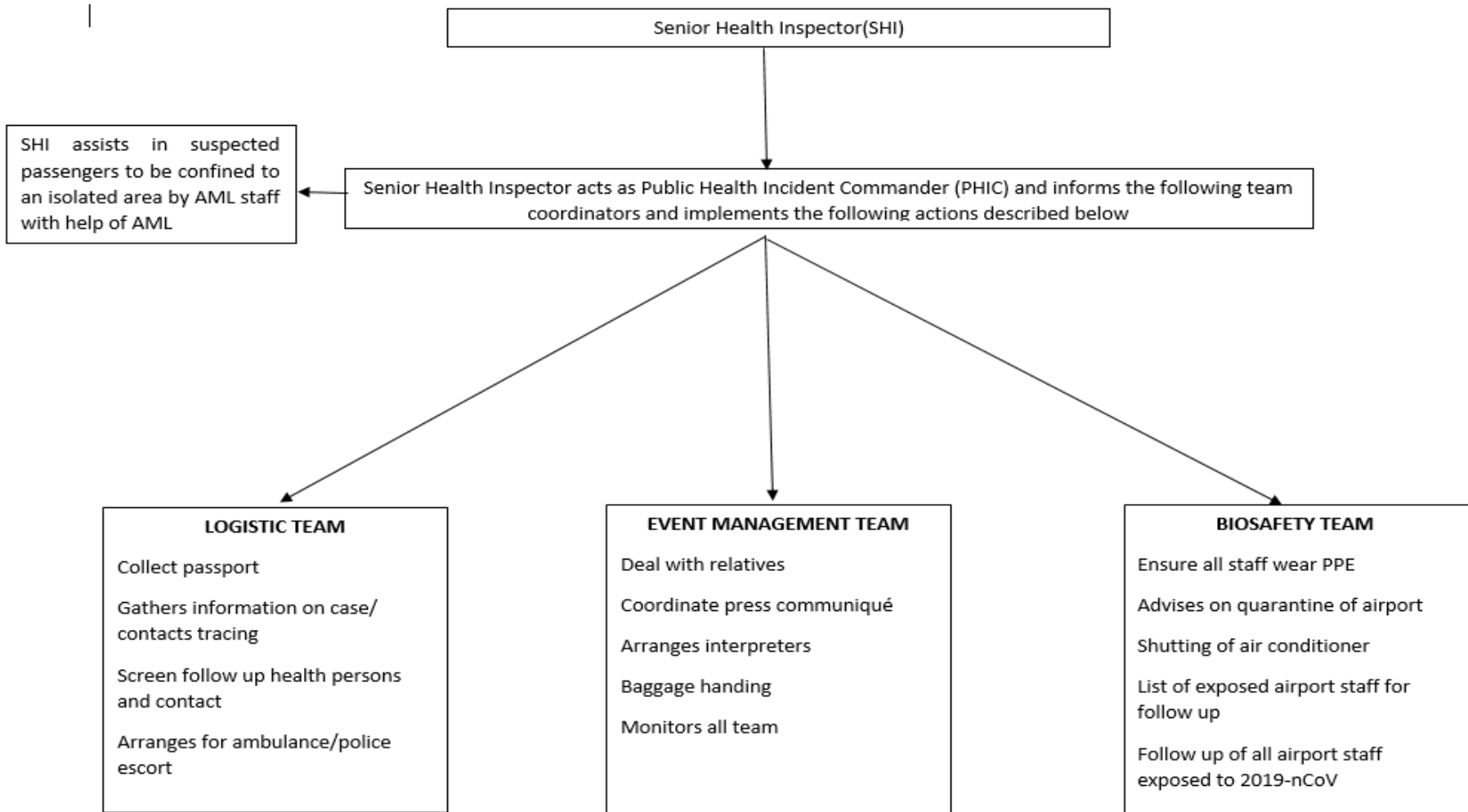
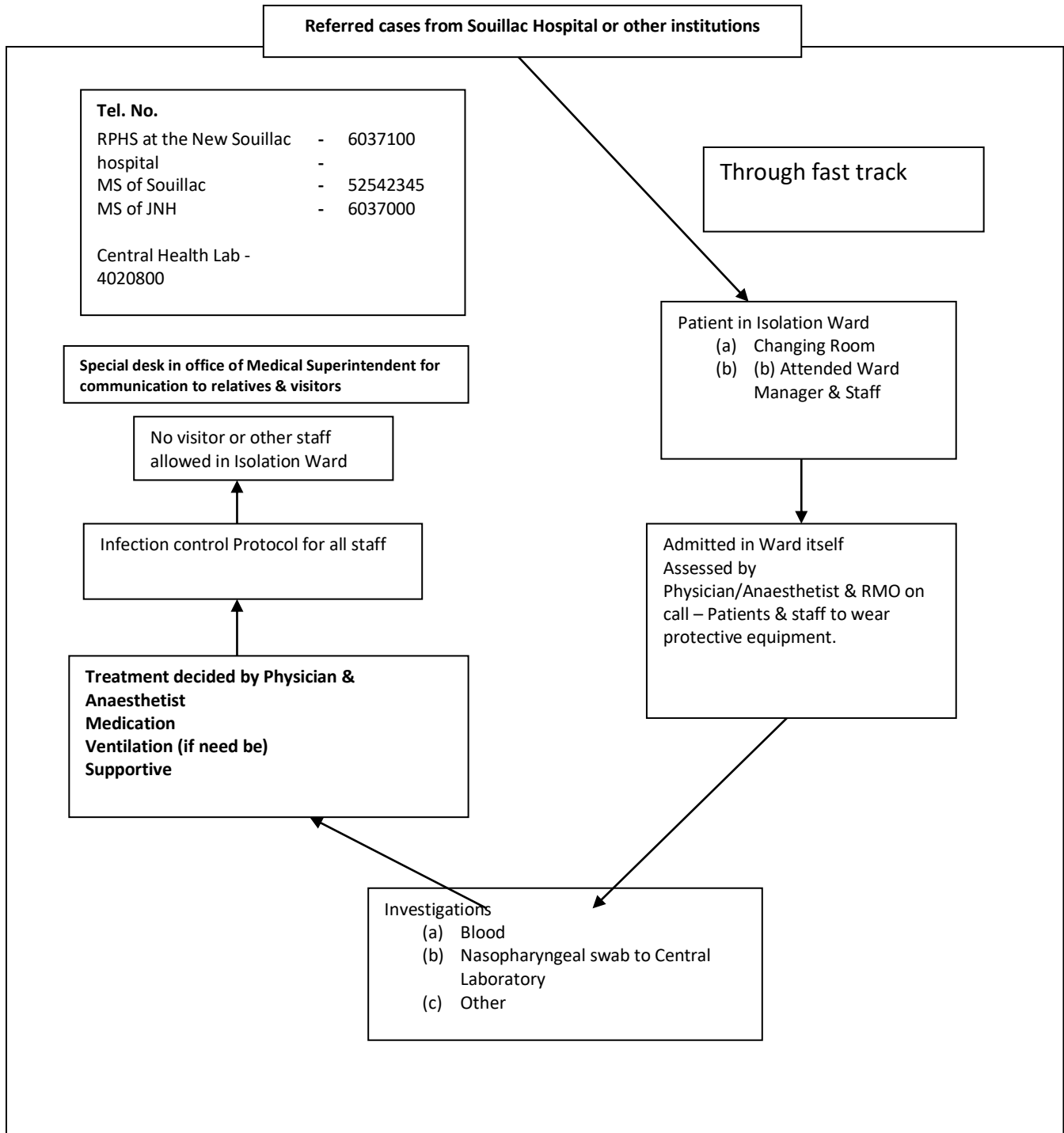
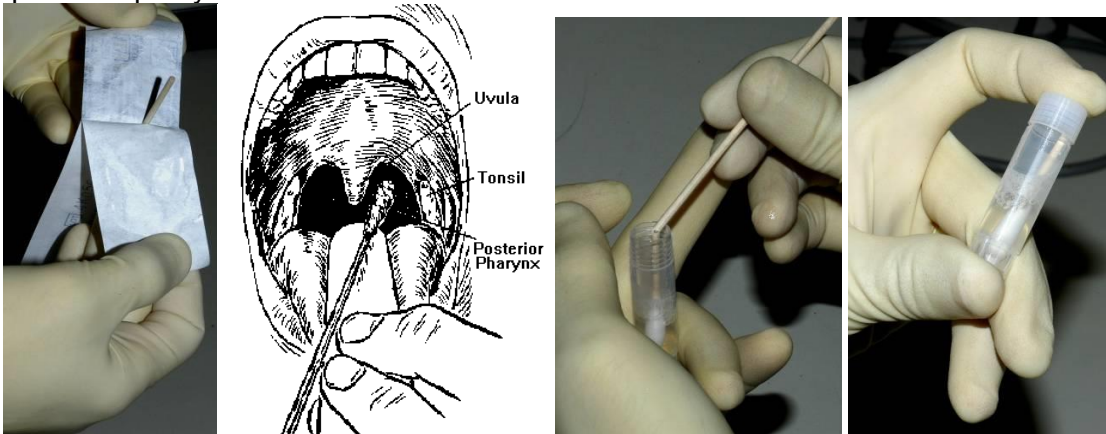


Figure 6. Management Of Novel Coronavirus Patients In Isolation Wards At Souillac Hospital (now known as district hospital)



ANNEX 1 : SPECIMEN COLLECTION PROCEDURE

1. Wear gloves when sampling and dispose of all materials as potentially infectious waste.
2. Use sterile non-cotton swabs. Open (peel off the paper covering from) the swab and cryovial using sterile technique.
3. It may be helpful to have an assistant open the cryovial for you.
4. Swab the patient's posterior pharynx and tonsils, rolling the swab to scrape the mucosa.
5. A tongue depressor and asking the patient to vocalize (say 'AAH') may aid in accessing the posterior pharynx.



6. Place the tip of the swab into the medium in the cryovial and break it off ensuring that the remaining portion of the stick will not prevent tight sealing of the cap.
7. Wipe the tube down with alcohol. Place a liquid-nitrogen-safe label on the tube or mark it with an alcohol safe marker giving the specimen same number on the laboratory form.

ANNEX 2 : QUESTIONNAIRE FOR CORONAVIRUS 2020

Surname:

Name.....

Nationality.....

Age: -----Date of birth.....

Sex: Male Female

Occupation.....

Date of arrival..... Flight number.....

Country of original embarkation.....

Country working in at present.....Duration of stay.....

Address in the country of work.....

Country/Countries travelled to during the past six months.....

Specific regions visited.....

Address in Mauritius:

Telephone Number: -----, Home..... Mobile.....

Past Medical History.....

Present Symptoms

Fever: Yes No Headache: Yes No

Aching muscles or joints: Yes No

Breathing difficulties: Yes No

Cough: Yes No

Date and time of onset of symptoms:

If attended any health facility: Yes No If Yes, name of facility.....

History of Exposure:

Whether transited or traveled from China or high-risk countries for the last 14 days Yes
No

To a person known to have Corona Virus (COVID-19): Yes No

To Live or sick animal: Yes No

Whether visited or stayed in a hospital where Corona Virus cases were being treated: Yes
No

Whether worked in a laboratory where tests are being carried out for Corona Virus: Yes No

Whether any Corona Virus cases in the locality of residence/ work: Yes No

Conditions of stay:

Living alone: Yes No

Living with other mates/relatives/parents: Yes No

Any sickness reported amongst co-workers or domestic staff or flatmates: Yes No

General clinical condition of the suspected case:

Any Remarks-----

Name of attending health officer-----

Signature.....

Date.....

I certify that the above information is correct.

Name-----

Signature-----

ANNEX 3: ILLUSTRATION OF PROPER HAND- WASHING



ANNEX 4: USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

All health care workers providing care for suspected or confirmed NOVEL CORONAVIRUS (2019) patients should use PPE. The following steps are reemphasized:

- Perform hand hygiene, preferably with an alcohol-based hand rub or soap and water.
- Put on a fluid-resistant gown.
- Put-on disposable particulate respirator .
- Perform user seal check of particulate respirator.
- Put on hair cover (if used, e.g. during an aerosol-generating procedure).
- Use face shield or goggles.
- Put on gloves (make sure gloves cover cuffs of gown sleeves).
- Shut the door after entering/leaving.

After performing the procedure, leave the isolation room/area or the ante room and observe the following steps:


- Remove gowns and gloves and discard in biomedical waste bin (gloves may be peeled from hands when gown is removed).
- Perform hand hygiene, preferably with an alcohol-based hand rub or soap and water.
- Remove protective eyewear and discard in biomedical waste bin.
- Remove hair cover and discard in biomedical waste bin.
- Remove medical mask or particulate respirator by grasping elastic band; do not touch front of particulate respirator (fronts of masks may be contaminated) and discard in biomedical waste bin.
- Perform hand hygiene preferably with an alcohol-based hand rub or soap and water.

ANNEX 5: ILLUSTRATION OF HOW TO WEAR AND DISPOSE PPE

HOW TO PUT ON AND TAKE OFF


Personal Protective Equipment (PPE)

How to put on PPE (when all PPE items are needed)




Step 1

- Identify hazards & manage risk. Gather the necessary PPE.
- Plan where to put on & take off PPE.
- Do you have a buddy? Mirror?
- Do you know how you will deal with waste?



Step 2


- Put on a gown.



Step 3a

- Put on face shield.


OR



Step 3b

- Put on medical mask and eye protection (e.g. eye visor/goggles)


Note: If performing an aerosol-generating procedure (e.g. aspiration of respiratory tract, intubation, resuscitation, bronchoscopy, autopsy), a particulate respirator (e.g. US NIOSH-certified N95, EU FFP2, or equivalent respirator) should be used in combination with a face shield or an eye protection. Do user seal check if using a particulate respirator.



Step 4

- Put on gloves (cover cuff).

How to take off PPE




Step 1

- Avoid contamination of self, others & the environment
- Remove the most heavily contaminated items first


Remove gloves & gown

- Peel off gown & gloves and roll inside, out
- Dispose gloves and gown safely



Step 2


- Perform hand hygiene



Step 3a

If wearing face shield:


- Remove face shield from behind
- Dispose of face shield safely



Step 3b

If wearing eye protection and mask:

- Remove goggles from behind
- Put goggles in a separate container for reprocessing
- Remove mask from behind and dispose of safely



Step 4

- Perform hand hygiene

ANNEX 6: A COSTED PLAN TO ASSIST IN RESOURCE MOBILIZATION

WHO Code	WHO Description	QTY	Unit Cost USD	Total Cost USD
KMEDCOVK1	KITnCoV,100 PATIENTS			
KMEDCOV1PPE1	(kit nCoV,100 patients) MODULE, PPE			
YMBQGLASWS1-A1	GOGGLES PROTECTIVE, wraparound, soft frame, indirect vent	300	13.00	3900.00
PEXTALCO1G-A1	ALCOHOL BASED HAND RUB, gel 100 ml bottle	200	1.29	257.61
EWASBAGBR007-A1	BAG BIOHAZARD, REFUSE, AUTOCLAVABLE 30*50 cm yellow	500	0.35	175.00
EWASYCHN5G1-A1	CHLORINE NA DCC 45-55% gran 1kg pot	8	6.00	48.00
CP PEGOWI3L-A1	GOWN AAMI, level 3, non sterile, disp., size L	600	0.80	480.00
CP PEGOWI3M-A1	GOWN AAMI, level 3, non sterile, disp., size M	900	0.80	720.00
CP PEGOWI3XL-A1	GOWN AAMI, level 3, non sterile, disp., size XL	250	0.80	200.00
CP PEGOWI3XXL-A1	GOWN AAMI, level 3, non sterile, disp., size XXL	50	0.80	40.00
CMSUGLEN1L1-A1	GLOVE EXAMINATION, nitrile, pf, size L	3300	0.07	217.80
CMSUGLEN1M1-A1	GLOVE EXAMINATION, nitrile, pf, size M	5300	0.07	349.80
CMSUGLEN1S1-A1	GLOVE EXAMINATION, nitrile, PF, SIZE S	4200	0.07	277.20
CMSUGLEN1XL1-A1	GLOVE EXAMINATION, nitrile, pf, size XL	1600	0.07	105.60
CPPEMASS2RL-A1	MASK SURGICAL, type IIR, level 2, s.u, non sterile, earloop, size l	1100	0.66	725.43
CPPEMASS2RM-A1	MASK SURGICAL, TYPE IIR, LEVEL 2, s.u NON STERILE, EARLOOP, SIZE M	1100	0.66	725.43
CPPEMASS2RS-A1	MASK SURGICAL, TYPE IIR, LEVEL 2, s.u NON STERILE, EARLOOP, SIZE S	1100	0.66	725.43
CPPEMASPF205-A1	RESPIRATOR MASK FFP2/N95 TYPE IIRM S.U,UNRIVBALED NOSECLIP	6000	0.66	3956.90
CPPEFSHIED02-A1	FACE SHIELD, clear plastic, disp.	2700	0.43	1156.23
CNSUTHERI01-A1	THERMOMETER INFRARED, no contact, handheld	30	25.00	750.00
CINSCONTC51-A1	SAFETY BOX, needles/syringes 5l, cardboard for incineration	40	0.82	32.87
OPACUN62BS1-A1	BOX, tiple packaging, biological substance UN3373 +pouch	100	6.18	617.75

OPACUN62IS1-A1	BOX triple packaging, infectious substance UN2814	20	30.28	605.69
CMSUBAGB4A04-A1	BAG BODY 8 handles U-shaped zip, white, 400 microns, adult, 230/100 cm	20	17.80	356.00
other costs				
Communication			Cost in MUR	Cost in USD
	Production of Posters and flyers		220,000	6,111.11
	Production of Pamphlets		100,000	2,777.78
	Production of banners		100,000	2,777.78
	video spots and tv broadcasts		1,000,000	27,777.78
Laboratory				-
	cost of reagents in PCR Testing		158,000	4,388.89
	additional PCR equipment		1,000,000	27,777.78
<i>*not included are cost of manpower, logistics, extra hours of work</i>				

The cost of manpower, logistics and other additional equipment would be provided from the Ministry of Health and Wellness Budget

ANNEX 7: INFECTION CONTROL FOR INPATIENT WARD MANAGEMENT

Patient Separation

- Patients should be kept separately in designated multi-bed rooms or wards.
- The distance between beds should be more than 1 m and beds should preferably be separated by physical barriers (e.g. partition).
- If achieving 1 m separation between beds is not feasible, beds should have alternating head-to-toe positioning to maximize the distance between the heads of patients.
- A surgical or procedure mask should be worn by all caregivers/staff when in close contact (i.e. < 1 m away) with any patients. Masks are not necessary if not in close contact with patients.
- If sufficient stocks exist, surgical/procedure masks are also recommended for patients when they are in close contact with others. This may not always be feasible (e.g. when the patient is on oxygen therapy) and thus patients must be encouraged to cover coughs/sneezes with a cloth or to cough/sneeze into their sleeve at all times.
- Movement and transport of patients from the room should be limited to essential purposes only. If transport is necessary, patients should wear a surgical or procedure mask when outside their room/area.
- Protocols for visitation by close relatives should be in place, and surgical or procedure masks made available for their use.
- Inpatient wards should have clinical equipment (e.g. sphygmomanometer, thermometer) dedicated to their exclusive use if possible. If not, disinfection with alcohol-based disinfectant should be carried out between patients.
- Patient examination must be minimized to such that will alter treatment only.

Entry to/exit from respiratory inpatient ward

- Minimize contact between health-care workers and patients as much as possible.
- Only clinical workers who have been educated about the disease should enter the room.
- Ensure that anyone who enters the ward wears appropriate PPE (mask and goggle/visor) if close contact with patients is anticipated.
- If contact with the patient's blood, body fluids/secretions is anticipated, also wear clean, non-sterile gloves and gown (plastic apron if gown is permeable) when entering the room.

Entering the respiratory inpatient ward

- Collect all equipment needed.
- PPE should be put on (and removed) outside the isolation room (see diagrams below for putting on PPE)
- Enter the room.

Leaving the respiratory inpatient ward

- If only masks and goggles/visors are used (close contact but no aerosol-generating procedures performed).
- Remove masks by grasping elastic behind ears or ties – do not touch front of mask – and place in biohazard plastic bag; perform hand hygiene.

If several PPE in the correct order (e.g. performing aerosol-generating procedures):

- Remove PPE in the correct order (see diagrams below for removing PPE).
- Remove gloves (peel from hand and discard into biohazard plastic bag).
- Remove gown (place in biohazard plastic bag). Gloves and gowns may be removed at the same time.
- Use alcohol-based hand rub or wash hands.
- Remove eyewear (goggles) – do not touch front of goggles – and place in biohazard plastic bag for disinfection and reuse.
- Remove mask – by grasping elastic behind ears or ties – do not touch front of mask – and placing in biohazard plastic bag.
- Use alcohol-based hand rub or wash hands again.

Hand hygiene

Each individual having direct contact with (touching) patients must perform hand hygiene:

- before and after patient contact
- after removing gloves
- in case of suspicion of hand contamination after removing gloves, e.g. while undressing after leaving the respiratory inpatient ward.

Hand hygiene is performed either:

- by using preferably an alcoholic hand rub solution if hands are not visibly soiled; or
- washing hands with running water and soap using a single-use clean towel for drying each time. Ensure that hand-eye contact is not made (e.g. wiping of sweat) as transmission can occur via conjunctival mucosa.

Cleaning/waste disposal

1. Alcohol-based hand-rub or hand-washing facilities should be located within and outside the isolation ward.
2. Reusable items should be placed in a closed recipient or plastic bag.
3. The respiratory inpatient ward must be cleaned each day - including all horizontal surfaces.
4. Cleaning equipment must be cleaned after each use. Mop-heads should be laundered in hot water (at least 70° C). If hot water is not available, soak mop-heads in 0.5% chlorine solution for approximately 15 minutes after washing.
5. Used linen should be placed in a linen bag inside the room. Take immediately to laundry collection area-treat as normal soiled/contaminated linen.
6. All waste should be discarded into a clinical waste-bag inside the room. When waste is to be collected for disposal, treat as “normal” clinical/contaminated/infectious waste.
7. The patient and family should be given appropriate health education messages.

8. Thorough cleaning and disinfection of the bed and room is required after discharge.

Annex 8: ENVIRONMENTAL HYGIENE BY DISINFECTANT USE

Disinfectant	Recommended Use	Precautions
Sodium hypochlorite		
Most household bleach solutions contain 5% sodium hypochlorite (50 000 parts per million (ppm) available chlorine).	Disinfection of material/surfaces contaminated with blood and body fluids.	Irritates mucous membranes, the skin and the airways, decomposes under heat and light, and reacts readily with other chemicals.
Rationale	Recommended available chlorine required	Mix and use in well-ventilated areas.
If the initial concentration of the bleach is 5%, 1 part bleach needs to be diluted with 99 parts water to give the final required concentration of 0.05%. Some constant method to measure 99 parts of water and 1 part bleach must be used or underdiluted (bleach is too strong) or overdilution (bleach is too weak) may occur.	0.05% or 500 ppm available chlorine Recommended dilution 1:100 dilution of 5% sodium hypochlorite is the usual recommendation. To get a 1:100 dilution, use 1 part bleach to 99 parts cold tap-water.	Protective clothing required while mixing, handling and using bleach (mask, rubber gloves and waterproof apron). Goggles are also recommended to protect the eyes from splashes. Mix bleach with cold water because hot water decomposes the sodium hypochlorite and renders it ineffective.
Example of how to dilute bleach	Adjust ratio of bleach to water as needed to achieve appropriate concentration of sodium hypochlorite, e.g. for bleach preparations containing 2.5% sodium hypochlorite, use twice as much bleach (i.e. 2 parts bleach to 98 parts water)	Do not mix with strong acids to avoid release of chlorine gas. Corrosive to metals.
Use spoons, cups, glasses, or other utensils commonly available in the community or the bottle cover (of the bleach) as a measuring tool. Let's assume a spoon is the measure of "1part". Using the same spoon, count the number of spoonfuls of water needed to full a cup. This will show how many "parts" a cup contains. Let's say the cup contains 48 parts water (i.e. it took 48 spoonfuls to fill the cup). Therefore 2 cups of water will equal to 96 parts of water. So 99	Contact times for different uses Disinfection by wiping of nonporous surfaces: a contact time of ≥10 min is recommended. Disinfection by	Surfaces must be cleaned of organic materials such as secretions, mucus, vomit, faeces, blood or other body fluids before disinfection or immersion.

Disinfectant	Recommended Use	Precautions
<p>pasts will need 2 cups of water plus 3 further spoons of water. This quantity of water then mixed with one spoon of bleach gives approximately the right dilution of 99 parts water to 1 part bleach.</p>	<p>immersion of items: a contact time of 30 min is recommended.</p>	
Alcohol		
<p>For example isopropyl 70% ethyl alcohol 60%.</p>	<p>Small surfaces (e.g. rubber stoppers of multiple-dose medication vials and thermometers) and occasionally external surfaces of equipment (e.g. stethoscopes and ventilators)</p>	<p>Flammable, toxic, to be used in well-ventilated areas and only on small surfaces, avoid inhalation.</p> <p>Keep away from heat sources, electrical equipment, flames, hot surfaces.</p> <p>Allow it to dry completely, particularly when using diathermy, as this may cause burns. May cause discoloration, swelling, hardening and crackling of rubber and certain plastics after prolonged and repeated use.</p>

Annex 9: GUIDELINES FOR AIRCRAFT CABIN CREW

1. It is recommended that sealed single-use refresher towels be provided to each passenger.
2. In the event that passengers with symptoms of fever, cough and breathing difficulties, traveling from People's Republic of China, or other high-risk countries (and any other countries with reported cases of Novel Corona Virus Disease) be detected prior to taking off, the Health Authorities at the port of embarkation should be contacted for necessary advice and action. Should such passengers be identified during the flight, they should be separated from others as much as possible (at the rear end of aircraft with separate lavatory for exclusive use).
3. The sick person should be provided with a face mask, or tissues if cannot tolerate the mask.
4. The sick person should be encouraged to wash hands with soap and water and /or use alcohol-based hand cleaner.
5. Crew members caring for sick persons should wear facemasks, impermeable disposable gloves or recommended Personal Protective Equipment in accordance with International Civil Organization guidelines.
6. Close contacts (the passengers seated three rows in front and behind, and three passengers seated on either side a symptomatic case) to be identified by cabin crew members.
7. Hard surfaces that are visibly soiled should be cleaned and disinfected. Soft surfaces such as carpeted floor or seat cushions soiled with vomit or diarrhea should also be cleaned and thereafter covered with an impermeable material to reduce the risk of spread of infection. In the event the sick passenger's clothes are soiled, he should be provided with a long sleeve disposable impermeable gown.
8. On flight, passengers and cabin crew are advised to practice good hand hygiene, such as washing hands with soap and water or using a hand sanitizer.
9. Solid waste such as gloves, towels and tissues have to be collected in closed bags, to be disposed of by incineration. Used sickness bags should be placed in sealed plastic bags, to be disposed of by incineration.

10. It is advisable to have an adequate stock of consumables such as disposable gloves, facemasks and hand sanitizers, onboard the aircraft.
11. Cabin crew is advised to avoid touching eyes, mouth and nose as far as possible without washing hands.
12. The ground control should be informed of any health-related incident before disembarkation so that precautionary measures could be taken.

Guidelines For Passport And Immigration Officers

1. It is recommended to avoid unnecessary close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.
3. Officers are advised to avoid touching eyes, mouth and nose as far as possible without washing hands.
4. It is recommended to always wash hands before and after taking meals and after using toilets.

Guidelines For Health Personnel At Airport

1. All health personnel is recommended to apply Infection Prevention Control measures at the health point.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.
3. It is recommended to avoid touching eyes, mouth and nose as far as possible without washing hands.
4. Health personnel who have been in contact with a suspected case and develop fever, severe weakness, body ache should inform the officer in charge immediately.
5. Follow recommended guidelines while assessing symptomatic patients.

Guidelines For Customs Officers

1. It is recommended to avoid unnecessary close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.
3. Impermeable disposable gloves should be worn by all officers when handling luggage and hands washed with soap and water after removing gloves.

4. Gloves are to be collected in closed bags, to be disposed of by incineration.
5. All workers should avoid touching eyes, mouth and nose as far as possible without washing hands with soap and water.
6. It is recommended to always wash hands before and after taking meals and after using toilets.

Guidelines For Police And Security Officers

1. It is recommended to avoid unnecessary close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.
3. Officers are advised to avoid touching eyes, mouth and nose as far as possible without washing hands.
4. It is recommended to always wash hands before and after taking meals and after using toilets.

Guidelines For Airport Baggage Handlers

1. It is recommended to avoid close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular hand washing or by using a hand sanitizer.
3. Impermeable disposable gloves should be worn by all officers when handling luggage.
4. Gloves are to be collected in closed bags, to be disposed of by incineration.
5. All workers should avoid touching eyes, mouth and nose as far as possible without washing hands with soap and water.
6. It is recommended to always wash hands before and after taking meals and after using toilets.

Guidelines For Personnel Of Duty-Free Shops

1. It is recommended that officers working in duty-free shops avoid unnecessary close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.

3. Officers are advised to avoid touching eyes, mouth and nose as far as possible without washing hands.
4. It is recommended to wash hands before and after taking meals and after using toilets.

Guidelines For Ground Personnel

1. It is recommended to avoid unnecessary close contact with sick looking passengers.
2. All officers are advised to practice good hand hygiene either by regular handwashing with soap and water or by using a hand sanitizer.
3. Officers are advised to avoid touching eyes, mouth and nose as far as possible without washing hands.
4. It is recommended to always wash hands before and after taking meals and after using toilets.

Guidelines For Catering Officers

1. All officers are advised to practice good hand hygiene by regular handwashing with soap and water.
2. All officers are recommended to avoid touching eyes, mouth and nose as far as possible without washing hands.
3. It is recommended not to handle food when suffering from any infectious illness.
4. It is recommended to always cover the nose and mouth while coughing and sneezing.
5. It is recommended to observe good hygienic practices while preparing and serving food.
6. Impermeable disposable gloves should be worn while handling food waste.
7. Disposable food trays/utensils should be used on the plane.
8. In the event that reusable utensils have been utilized on board, it is recommended that all these items be disinfected and washed thoroughly using detergent and water. The officer handling these items should wear heavy-duty gloves.
9. All leftover food and disposables from the plane should be disposed of in sealed bags and ultimately incinerated.

Guidelines For Aircraft Cleaning Personnel

1. It is recommended to avoid close contact with sick looking passengers.
2. Workers responsible for cleaning are advised to practice good hand hygiene by regular handwashing with soap and water.
3. It is recommended to wear impermeable disposable gloves while cleaning aircraft.
4. All frequently touched surfaces (such as tabletops, headsets, armrests, and headrests, doorknobs, taps, etc.) in the aircraft should be cleaned and disinfected, wearing impermeable disposable gloves. In the event of a suspected case on board the aircraft, cleaning personnel should wear appropriate disposable Personal Protective Equipment (impermeable long-sleeved gowns, plastic aprons, caps, goggles, N95 face masks, and boots).
5. All workers should clean hands with soap and water after gloves are removed.
6. Solid waste such as gloves, used Personal Protective Equipment, used paper towels, disposable masks, and towels should be collected in closed bags to be disposed of by incineration.
7. All workers should avoid touching their eyes, mouth and nose without washing hands with soap and water.
8. It is advisable not to use compressed air to clean the airplane.
9. Special vacuuming procedures are not recommended while cleaning the plane.
10. Workers who develop fever, severe weakness, body ache should consult a doctor immediately.

INFECTION PREVENTION AND CONTROL PROTOCOL FOR ISOLATION WARD

The Isolation Ward is located on the first floor of New Souillac Hospital (formerly Male Isolation Ward), now known as district hospital. The isolation ward is provided with a changing room, kitchen, and toilet with a bathroom for staff on the right side of the corridor before the Central Nursing Station.

The ward has 5 bays. Four bays are reserved for isolation and one bay for quarantine. The four isolation bays are completely separated from the quarantine bay with separate accesses.

Isolation Bays

- A. The first two isolation bays are equipped with facilities for ventilator machines. The first bay has been earmarked for male patients and the second bay for female patients. Each bay can accommodate three beds with ensuite toilet and bathroom.

There is also provided a nursing station and an anteroom in each bay. The anteroom will be used by staff for the removal of personal protective equipment and hand washing after leaving the patient's room.

In the patient's room, each bed will be provided with a dedicated thermometer, stethoscope, automatic blood pressure apparatus, hand sanitizer (alcohol hand rub) and a covered pedal bin lined with double plastic bags. The mattress to be covered by a disposable plastic sheet or an impermeable mattress cover.

The room will also have a sink with sensor taps and automatic liquid soap dispenser and paper towels for hand drying.

- B. There are two other bays one for female and one for male patients each with three beds, but without facilities for ventilation machines. They are also provided each with a nursing station, an anteroom and ensuite toilet and bathroom for patients.

Total no. of beds in isolation bays: $6 + 6 = 12$

Quarantine Bay

The quarantine bay is physically separated from the isolation bays and has a partition in the middle to separate male and female patients. On one side to the left inside the bay, a small space will be provided for Nursing Staff monitoring the quarantined patients. The quarantine bay will accommodate two beds for male patients and two beds for female patients.

Total no. of beds in quarantine bay: 4

Anteroom

The anteroom will have a sink with sensor taps and automatic soap dispensers and provision for paper towels for hand-drying. Also, an automatic alcohol hand rub dispenser

will be available for hand hygiene. Large bins with cover and lined with double plastic bags will be used for the collection of used disposable Personal Protective Equipment except for gumboots which will be kept in a separate container with disinfectant.

Nursing Station in Isolation Bays

The nursing station will have an intercom facility for communicating with the central nursing station in the ward. It will also have an alcohol hand rub dispenser and a small cupboard with a mini-fridge for keeping medications.

The Central Nursing Station

It will have a direct phone line and intercom communications with the nursing stations in all the bays. It will also be provided with alcohol hand rub dispensers and stationery for record-keeping.

Entry to Isolation Ward

Patients will be transported to a designated hospital by ambulance. The ambulance will not take the main entrance, but the second entrance near the Diabetes & Vascular Health Centre leading to the parking near the mortuary. The patient will take the corridor to the designated lift in the basement. This lift will be solely dedicated to the transfer of COVID-19 patients only, to the Isolation Ward on the first floor. The patient accompanied by the Nursing Staff will access the main door of the Isolation Ward and after leaving the patient in the Isolation Room; the Nursing Officer will proceed to the anteroom by the other door earmarked for this, for the removal of Personal Protective Equipment and hand hygiene.

Entry to Quarantine Bay

Since these patients are not sick and will be ambulatory they will access the quarantine bay by the stairs at the emergency exit on the ground floor.

The ambulance transporting these patients, will take the second entrance near the Diabetes & Vascular Health Centre and park by the emergency exit door on the ground floor. The Nursing Officer accompanying the person to be quarantined will proceed with his admission to the quarantine bay after having informed the Nursing Supervisor.

All staff working in the isolation bays will change into theatre clothes first (trousers and shirts) and then put on the personal protective equipment as per protocol in the changing room.

CLEANING OF ISOLATION BAY

Health Cleaning Personnel will wear heavy-duty/rubber gloves and full Personal Protective Equipment when cleaning the isolation bay. They will start by the nursing station (clean), proceed to the patient's room (contaminated) and leave by the anteroom and store Personal Protective Equipment in the same and place used equipment in a bin marked for this purpose.

The anteroom needs to be cleaned by another cleaning staff who will remove all bins after disinfecting their surfaces with disinfectant (Javel). The bins to be carried on a trolley and transported to the basement via the designated lift. The bins containing the soiled linens and disposable gowns, aprons, visor, gloves, and headcover will be sent for incineration. Waste and soiled linen will be disposed of in accordance with established procedures.

PROTOCOL FOR WEARING PERSONAL PROTECTIVE EQUIPMENT

In Changing Room

1. Staff to put on theatre clothes (trousers and shirts) first after removing working clothes.
2. Put on overshoes.
3. Put on a disposable impermeable long-sleeved disposable gown over theatre clothes.
4. Wear a N95 mask.
5. Put on goggles or disposable face shield.
6. Wear disposable headcover.
7. Perform hand hygiene
 - (i) Either wash hands with soap and water if hands visibly soiled
- Or**
- (ii) Use alcohol hand rubs if hands not soiled.
8. Put on disposable impermeable gloves over cuffs of the gown. Use double gloves if contact with blood or body fluids is anticipated.
9. Place disposable waterproof apron over the gown.

While Wearing Personal Protective Equipment

1. Avoid touching or adjusting Personal Protective Equipment.

2. Remove gloves if they become soiled or damaged.
3. Change gloves between patients or between procedures on the same patient if required.
4. Always perform hand hygiene before putting on new gloves.

How to Remove Personal Protective Equipment

1. Peel off the plastic apron and dispose in bin earmarked for this purpose.
2. Remove gown and roll inside-out slowly and dispose in bin.
3. Remove gloves and discard in bin. Perform hand hygiene with alcohol hand rub.
4. Perform hand hygiene – wash hands with soap and water and dry with paper towels – discard used paper towels in bin.
5. Remove head cover from behind.
6. Remove face protection
 - (a) Remove disposable face shield from behind and place in bin or remove goggles from behind and place in a separate container with disinfectant and for processing it to be secured.
 - (b) Remove mask from behind the head.
7. Perform hand hygiene – wash hands with soap and water and use paper towels for drying. Dispose paper towels in bin.
8. Remove overshoes and discard in bin.
9. Perform hand hygiene.

INFECTION PREVENTION AND CONTROL

- Before entering the isolation room **always wear full PPE.**
- Consider changing gloves if heavily soiled with blood or any body fluids while providing care to the same patient (perform hand hygiene immediately after removal).
- Always change gloves and perform hand hygiene immediately after removal, when moving from one patient to another while caring for patients in the same room.
- When undertaking any strenuous activity, (e.g. carrying a patient) or task in which contact with blood and body fluids is anticipated (e.g. the patient has symptoms like diarrhea,

bleeding or vomiting and/or the environment could be contaminated with blood or body fluids), in addition to the above-mentioned PPE, use double gloving and wear a heavy-duty impermeable apron over the gown.

- **Avoid aerosol-generating** procedures as far as possible.
- When leaving the isolation room, **carefully remove and dispose of PPE** into waste containers and perform hand hygiene.
- When removing PPE, be careful to avoid any contact between the soiled items (e.g. gloves, gowns) and any area of the face (i.e. eyes, nose or mouth) or non-intact skin.
- Use **dedicated equipment** (e.g. thermometer, stethoscope, and BP apparatus) for each patient. Disinfect this equipment with appropriate disinfectants.
- The patient's charts and records should be **kept outside the isolation room** at the Central Nursing station to avoid their contamination.

Hand Hygiene

Carefully apply the following precautions to avoid any possible unprotected direct contact with blood and body fluids when providing care to the patient:

➤ ***Perform hand hygiene:***

- before donning gloves and wearing PPE on entry to the isolation room/area,
- before any clean/aseptic procedures being performed on a patient,
- after any exposure risk or actual exposure with the patient's blood and body fluids,
- After touching (even potentially) contaminated surfaces/items/equipment in the patient's surroundings and after removal of PPE, upon leaving the care area.

Hand hygiene should be performed within the isolation rooms/areas every time it is needed according to the above indications during care to the patient, along with change of gloves. When caring for patients in the same room, it is essential to organize the complete care to each patient before moving to the next and to perform hand hygiene between touching the patients.

Neglecting to perform hand hygiene after removing PPE will reduce or negate any benefits of the protective equipment.

Injection Safety and Sharps

- Syringes, needles or similar equipment should never be reused.
- Limit the use of needles and other sharp objects as much as possible.
- Limit the use of phlebotomy and laboratory testing to the minimum necessary for essential diagnostic evaluation and patient care.
- Never replace the cap on a used needle.
- Never direct the point of a used needle towards any part of the body.
- Do not remove used needles from disposable syringes by hand, and do not bend, break or otherwise manipulate used needles by hand.
- Dispose of syringes, needles, scalpel blades and other sharp objects in appropriate, puncture-resistant containers.

Puncture-resistant containers for sharps objects should be placed as close as possible to the immediate area where the objects are being used ('point of use') to limit the distance between use and disposal, and ensure the containers remain upright at all times.

Puncture-resistant containers should be securely sealed with a lid and replaced when three-quarters full

ENVIRONMENTAL CLEANING

- Wearing full PPE including heavy-duty/rubber gloves, impermeable gown, apron, and facial protection when cleaning the environment and handling infectious waste.
- Cleaning and disinfection of environmental surfaces or objects contaminated with blood, other body fluids, secretions or excretions, which should be done as soon as possible using standard hospital detergents/disinfectants (e.g. a 0.5% chlorine solution or a solution containing 1 000 ppm available free chlorine). The application of disinfectants should be preceded by cleaning to prevent the inactivation of disinfectants by organic matter.

- Prepare cleaning and disinfectant solutions every day. Cleaning solutions should be changed and equipment refreshed frequently while being used during the day, as they will get contaminated quickly.
- Clean floors and horizontal work surfaces at least once a day with clean water and detergent. Cleaning with a moistened cloth helps to avoid contaminating the air and other surfaces with air-borne particles.
- Allow surfaces to dry naturally before using them again.
- Rags holding dust should not be taken out and surfaces should not be cleaned with dry rags.
- Cleaning should always be carried out from “clean” areas to “dirty” areas, in order to avoid contaminant transfer.
- Disinfection of occupied or unoccupied clinical areas with spray (fogging) should not be carried out. This is a potentially dangerous practice that has no proven disease control benefit.

LINEN AND LAUNDRY SERVICES

Linen that has been used on patients can be heavily contaminated with body fluids (e.g. blood, vomit) and splashes may result during handling. When handling soiled linen from patients, **always use full PPE.**

Soiled linen should be placed in clearly-labeled, leak-proof bags or buckets at the site of use and the container surfaces should be disinfected (using an effective disinfectant) before removal from the isolation room.

If there is any solid excrement such as faeces or vomit, scrap off carefully using a flat firm object and flush it down the toilet before linen is placed in its container.

Linen should never be carried against the body.

Linen should be then transported directly to the laundry area in its container and laundered promptly with water and detergent

After washing linen should be soaked in 0.05% Chlorine solution for approximately 30 minutes and then dried.

Soiled linen should be incinerated.

DISINFECTION OF TRANSPORT VEHICLE

- The vehicle cleaner should wear full Personal Protective Equipment.
- The interior of the vehicle should be rinsed with bleach solution diluted in the strength of 1:10.
- The solution should be allowed to rest for ten minutes.
- The vehicle should then be rinsed well with clean water and allowed to air- dry.
- Proper rinsing is advised as the solution may be corrosive to the vehicle

Laboratory testing for SARS-CoV-2 by Central Health Laboratory, Mauritius

Guidance document
27 February 2020, Version 1.0

Scope of document: Addressed to healthcare professionals

Disclaimer: The reader is advised to keep track of updated versions of this document

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Frequently asked questions

1. Is testing for SARS-CoV-2 offered in Mauritius?

Yes. Testing is performed in Molecular Biology department, Central Health Laboratory (CHL), Victoria Hospital, Candos, Mauritius.

2. What type of test is being done?

In line with World Health Organization recommendations¹, molecular testing (Polymerase Chain Reaction, PCR) is being done at CHL based on WHO-listed testing methodologies available.

3. Who can request for the tests?

Medical practitioners may order the test only following contact with Regional Public Health Superintendent who liaise with Communicable Disease Control Unit (CDCU). The need for the test for the individual will then be assessed accordingly (see below).

4. If I see a patient in my outpatient in public/private healthcare facility, may I request for the test?

As per Ministry of Health and Wellness, Republic and Mauritius, as of date of issue of this guidance document (27 February 2020), individuals need to be in isolation/quarantine facilities for specimen to be collected and for Central Health Laboratory to accept specimen for testing. Practitioners are advised to keep up-to-date with Ministry of Health and Wellness, Mauritius communiqués as well as World Health Organization guidance documents.

5. Is the test offered in Mauritius reliable?

Yes, the molecular test currently performed by Central Health Laboratory is the test recommended for SARS-CoV-2 detection¹.

Any test(s) done in Mauritius will be sent for confirmation to a referral laboratory listed by WHO². Agreement is already in place with the referral laboratory for specimens coming from Mauritius.

6. How long does the test take?

Minimum of 6 hours.

7. What does a negative result mean?

An individual with COVID-19 may test negative by PCR initially and may need to be retested more than once based on clinical grounds. Practitioners are advised to repeat testing if clinically indicated. One negative result does not exclude infection by SARS-CoV-2.

8. Should I test only people with cough and fever?

Muscle ache, headache, confusion, chest pain, vomiting and diarrhoea have been described as presenting features as well.^{3,4}

9. If a patient tests positive for any respiratory viral infection or any other microbe, what should I do?

Coinfection with SARS-CoV-2 has not been ruled out. An individual may be coinfecting with influenza virus or bacterial or fungal infection.⁴ Repeat testing to exclude SARS-CoV-2 may be needed based on clinical grounds.

Case definitions for surveillance in Mauritius^{5,6}

Suspected case

Patients with any acute respiratory illness and close contact with a confirmed case of COVID-19 in the 14 days prior to illness onset
OR

Individuals with acute respiratory infection (fever, cough, and requiring admission to hospital) AND history of travel to or residence in either China or countries with documented community transmission of SARS-CoV-2; travel to areas that involved pilgrimage and/or gathering of individuals with potential droplet-based transmission in the 14 days prior to symptom onset (epidemiological criteria)
OR

Patients with any acute respiratory illness with no other etiology that fully explains the clinical presentation*

**Clinicians are reminded to request appropriate samples to exclude diagnosis by other etiological agents other than that by SARS-CoV-2.*

Probable case

A suspect case for whom testing for SARS-CoV-2 is inconclusive

Confirmed case

A person with laboratory confirmation of SARS-CoV-2 detected, irrespective of clinical signs and symptoms

Indications for testing:

- Any suspected case
- For individuals not meeting case definition for suspected case, such as for a cluster of acute respiratory illness where no etiological diagnosis has been possible

Specimens needed in suspected cases for SARS-CoV-2 testing by laboratory:

	SPECIMEN TYPE	CONTAINER	WHAT TO WRITE ON FORM	RATIONALE
1	Blood	Blood culture bottle	Blood culture for (M/C/S)	To exclude bacterial pathogens
2	Throat swab & nasopharyngeal swab mixed into one VTM	Viral transport medium	PCR for viral respiratory pathogens	For respiratory viruses detection
3	Sputum	Sputum container	Bacterial culture (M/C/S)	To exclude bacterial pathogens

Note:

- Request forms need to be filled properly in a legible way – with DOCTOR'S NAME AND SIGNATURE and date of collection of specimen especially mandatory
- Throat swab and nasopharyngeal swab for viral testing by PCR to be collected both in viral transport medium, NOT in dry swab
- ALL three specimens are required if sending from a suspected case of COVID-19
- Regional Public Health Superintendent and laboratory to be contacted prior to sending of specimen
- Laboratory to be informed before sending specimens
- Additional tests may be requested for as per doctor's clinical suspicion
- Specimens should be stored in refrigerator at 4-6°C if any delay in transport is anticipated
- DOCTORS ARE REQUESTED NOT TO WRITE "VIRAL STUDIES" on any request forms pending further notice from Central Health Laboratory

Monitoring (as part of management of COVID-19)

Following detection of positive cases only (laboratory-confirmed COVID-19), viral clearance should be documented by repeating specimen collection and testing at least every 2 to 4 days until there are two consecutive negative results at least 48 hours apart.⁴

Infection control measures to be maintained with droplet and contact precautions when collecting specimens.

Contact details of Central Health Laboratory: 4020800 / 4246375.

References:

1. Laboratory testing for 2019 novel coronavirus (2019-nCoV) in suspected human cases Interim guidance (17 January 2020)
2. Specimen referral for 2019nCoV - operational details of referral laboratories (10 February 2020) https://www.who.int/docs/default-source/coronaviruse/who-appointed-2019-ncov-referral-laboratories-7-february-2020.pdf?sfvrsn=c3fa3ec3_4
3. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study Chen, Nanshan et al. The Lancet, Volume 395, Issue 10223, 507 – 513
4. Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. JAMA. Published online February 07, 2020. doi:10.1001/jama.2020.1585
5. Global Surveillance for human infection with novel coronavirus (2019-nCoV) Interim guidance (31 January 2020)
6. Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected - Interim guidance 28 January 2020 WHO/nCoV/Clinical/2020.2



Revised case report form for Confirmed Novel Coronavirus COVID-19 (report to WHO within 48 hours of case identification)

Date of reporting to national health authority: [D][D]/[M][M]/[Y][Y][Y][Y]

Reporting country: _____

Why tested for COVID-19:

- Contact of a case, Ill Seeking Healthcare due to suspicion of COVID-19, Detected at point of entry, Repatriation, Routine respiratory disease surveillance systems (e.g influenza), Unknown

If none of the above, please explain: _____

Section 1: Patient information

Unique Case Identifier (used in country): _____

Age (years): [][][] if <1 year old, [][] in months or if < 1 month, [][] in days

Sex at birth: Male Female

Place where the case was diagnosed: Country: _____

Admin Level 1 (province): _____

Case usual place of residency: Country: _____

Section 2: Clinical Status

Date of first laboratory confirmation test: [D][D]/[M][M]/[Y][Y][Y][Y]

Any symptoms* or signs at time of specimen collection that resulted in first laboratory confirmation?

- No (i.e., asymptomatic), Yes, Unknown

If yes, date of onset of symptoms: [D][D]/[M][M]/[Y][Y][Y][Y]

Underlying conditions and comorbidity:

- Any underlying conditions? No Yes Unknown

If yes, please check all that apply:

- Pregnancy (trimester: _____), Cardiovascular disease, Diabetes, Liver disease, Chronic neurological or neuromuscular disease, Other(s), please specify, Post-partum (< 6 weeks), Immunodeficiency, including HIV, Renal disease, Chronic lung disease, Malignancy

Health Status at time of reporting:

Admission to hospital: No Yes Unknown

First date of admission to hospital: [D][D]/[M][M]/[Y][Y][Y][Y]

If yes

Did the case receive care in an intensive care unit (ICU)? No Yes Unknown

Did the case receive ventilation? No Yes Unknown

Did the case receive extracorporeal membrane oxygenation? No Yes Unknown

Is case in isolation with Infection Control Practice in place No Yes Unknown

Date of isolation: [D][D]/[M][M]/[Y][Y][Y][Y]

Section 3: Exposure risk in the 14 days prior to symptom onset (prior to testing if asymptomatic)

Is case a Health Care Worker (any job in a health care setting): No Yes Unknown

If yes, Country: _____ *City:* _____ *Name of Facility:* _____

Has the case **travelled** in the 14 days prior to symptom onset? No Yes Unknown

If yes, please specify the places the patient travelled to and date of departure from the places:

	Country	City	Date of Departure from the place
1.	Country _____	City _____	Date _____
2.	Country _____	City _____	Date _____
3.	Country _____	City _____	Date _____

Has case **visited any health care facility** in the 14 days prior to symptom onset? No Yes Unknown

Has case **had contact with a confirmed case** in the 14 days prior to symptom onset? No Yes Unknown

If yes, please list unique case identifiers of all probable or confirmed cases:

If yes, please explain contact setting: _____

	Contact ID	First Date of Contact	Last Date of Contact
1.	_____	Date _____	Date _____
2.	_____	Date _____	Date _____
3.	_____	Date _____	Date _____
4.	_____	Date _____	Date _____
5.	_____	Date _____	Date _____

Most likely country of exposure: _____



Section 4: Outcome : complete and re-ent the full form as soon as outcome of disease is known or after 30 days after initial report

Date of re-submission of this report: [D][D]/[M][M]/[Y][Y][Y][Y]

If case was asymptomatic at time of specimen collection resulting in first laboratory confirmation, did the case develop any symptoms or signs at any time prior to discharge or death:

- No (i.e., case remains asymptomatic)
Yes, asymptomatic case (as previously reported) developed symptoms and/or signs of illness

If yes, date of onset of symptoms/signs of illness: [D][D]/[M][M]/[Y][Y][Y][Y]

- Unknown

Clinical Course:

Admission to hospital (may have been previously reported): No Yes Unknown

If admitted to hospital:

First date of admission to hospital: [D][D]/[M][M]/[Y][Y][Y][Y]

- Did the case receive care in an intensive care unit (ICU)? No Yes Unknown
Did the case receive ventilation? No Yes Unknown
Did the case receive extracorporeal membrane oxygenation? No Yes Unknown

Health Outcome: Recovered/Healthy Not recovered Death Unknown: Other:

If other, please explain: _____

Date of Release from isolation/hospital or Date of Death: [D][D]/[M][M]/[Y][Y][Y][Y]

If released from hospital /isolation, date of last laboratory test:

[D][D]/[M][M]/[Y][Y][Y][Y]

Results of last test: positive negative Unknown

Total number of contacts followed for this case: _____ Unknown

Global Surveillance for COVID-19 disease caused by human infection with novel coronavirus (COVID-19)

Interim guidance
27 February 2020



Background

This document summarizes WHO's revised guidance for global surveillance of COVID-19 disease caused by infection with novel coronavirus (COVID-19). WHO will continue to update this guidance as new information about COVID-19 becomes available.

Updated information about COVID-19 can be found here along with other guidance documents. <https://www.who.int/health-topics/coronavirus>

Purpose of this document

This document provides guidance to Member States on implementation of global surveillance of COVID-19.

Objectives of the surveillance

The objectives of this global surveillance are:

1. Monitor trends of the disease where human-to-human transmission occurs
2. Rapidly detect new cases in countries where the virus is not circulating
3. Provide epidemiological information to conduct risk assessments at the national, regional and global level
4. Provide epidemiological information to guide preparedness and response measures

Case definitions for surveillance

The case definitions are based on the current information available and will be revised as new information accumulates. Countries may need to adapt case definitions depending on their own epidemiological situation.

Suspect case

A. A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath), **AND** with no other aetiology that fully explains the clinical presentation **AND** a history of travel to or residence in a country/area or territory reporting local transmission ([See situation report](#)) of COVID-19 disease during the 14 days prior to symptom onset.

OR

B. A patient with any acute respiratory illness **AND** having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to onset of symptoms;

OR

C. A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness breath) **AND** requiring hospitalization **AND** with no other aetiology that fully explains the clinical presentation.

Probable case

A suspect case for whom testing for COVID-19 is inconclusive¹.

Confirmed case

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

Link for lab page: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance>

Recommendations for follow-up of contacts**Definition of contact**

A contact is a person that is involved in any of the following:

- Providing direct care without proper personal protective equipment (PPE)² for COVID-19 patients
- Staying in the same close environment of a COVID-19 patient (including workplace, classroom, household, gatherings).
- Traveling together in close proximity (1 m) with a COVID-19 patient in any kind of conveyance within a 14-day period after the onset of symptoms in the case under consideration.

Recommendations for laboratory testing

Any suspected case should be tested for COVID-19 infection using available molecular tests. However, depending on the intensity of the transmission, the number of cases and the laboratory capacity, only a subset of the suspect cases may be tested.

If resources allow, testing may be done more broadly (for instance through sentinel surveillance) to better assess the full extent of the circulation of the virus.

Based on clinical judgment, clinicians may opt to order a test for COVID-19 in a patient not strictly meeting the case definition, for example, if there are patients involved in a cluster of acute respiratory illness among healthcare workers or of severe acute respiratory infection (SARI) or pneumonia in families, workplaces or social network.

Recommendations for reporting surveillance data to WHO**Case based Reporting:**

WHO requests that national authorities report probable and confirmed cases of novel coronavirus COVID-19 infection **within 48 hours** of identification, by providing the minimum data set outlined in *the "Revised [case reporting form for 2019 Novel Coronavirus of confirmed and probable cases](#)"*, through the National Focal Point and the Regional Contact Point for International Health Regulations at the appropriate WHO regional office. [A template for the revised line listing in Excel format](#) with the [data dictionary](#), which suggests the name of the variables and their specifications is available. If the outcome of the patient is not yet available at first reporting an **update of the report** should be provided as soon as outcome is available latest **within 30 days** of the first report.

Reporting of case-based report is requested as long as feasible for the country. When it is not feasible to report case-based data, countries are requested to provide daily and weekly aggregated data.

Daily aggregated data

WHO requests reporting of the number of new confirmed cases by first administrative level (e.g. region, province, state, municipalities) and deaths

¹ Inconclusive being the result of the test reported by the laboratory.

² <https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-%28ncov%29-infection-is-suspected-20200125>

Weekly aggregated data:

- Weekly number of new confirmed: Patients tested positive for COVID-19 infection
- Weekly number of new probable case: Patient with inconclusive laboratory test result
- Weekly number of new deaths due to COVID-19 infection
- Weekly number of new COVID-19 cases hospitalised
- Weekly number of new COVID-19 cases treated with mechanical ventilation or ECMO or admitted in intensive care unit (ICU).
- Weekly number of new cases and new deaths, by age-group in year (using: 0<2, 2<5, 5<15, 15<50, 50<65 and 65 and above; or similar).
- Cumulative sex ratio of confirmed cases and deaths
- Total number of laboratory tests conducted
- Total number of tests that are positive for COVID-19
- If possible, number of contacts under follow-up and number of new identified contacts

Procedures to report to WHO are similar to that implemented for the case-based reporting.

Recommendations for specimen collection

Lower respiratory specimens likely have a higher diagnostic value than upper respiratory tract specimens for detecting COVID-19 infection. WHO recommends that, if possible, lower respiratory specimens such as sputum, endotracheal aspirate, or bronchoalveolar lavage be collected for COVID-19 testing. If patients do not have signs or symptoms of lower respiratory tract disease or specimen collection for lower respiratory tract disease is clinically indicated but the collection is not possible, upper respiratory tract specimens, such as a nasopharyngeal aspirate or combined nasopharyngeal and oropharyngeal swabs should be collected.

If initial testing is negative in a patient who is strongly suspected to have COVID-19 infection, the patient should be resampled, and specimens collected from multiple respiratory tract sites (nose, sputum, endotracheal aspirate). Additional specimens may be collected such as blood, urine, and stool, to monitor the presence of virus and shedding of virus from different body compartments.

Full details about laboratory guidance for COVID-19 can be found here: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance>

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WHO reference number: [WHO/2019-nCoV/SurveillanceGuidance/2020.4](#)