OPERATIONAL PLAN OF THE MINISTRY OF HEALTH AND WELLNESS ON MERS-CORONAVIRUS:
A STEP-BY-STEP APPROACH

Revised on 1st September 2021
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Containment SOP number 3: Illustration of how to wear and dispose PPE (version 1: dated Tuesday April 16, 2013)

Containment SOP 4: Patient Care Checklist

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Executive Summary

A novel avian influenza virus, strain A MERS-CORONAVIRUS has been reported in Middle-East.

The Government of Mauritius has formulated a pandemic preparedness plan, specifically tailored to MERS-CORONAVIRUS avian influenza virus in order to maximize containment of the virus, minimize its impact and ensure continuity of health care and other essential services during the pandemic. The plan is jointly finalized by a task force of the Ministry of health in coordination with other relevant sectors including the Ministry of Agriculture, Mauritius Airport Authority, Mauritius Port Authority, Ministry of Education, Department of Police and the World Health Organization and other stakeholders. The Ministry of health is responsible for the implementation of the health aspects of the plan.

The plan serves as a blueprint for actions and formulation of standard operating procedures (SOP) by all stake-holders. 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. When properly executed, the actions will ensure surveillance to detect the first entry of pandemic to our ports and seaports and community at large; separation of infected persons; tracing of contacts and interruption of the virus transmission by pharmacological and basic hygiene measures will ensure the pandemic is contained at the beginning stage, or in the worst scenario mitigate the impacts. It presents a collection of protocols to be used under all phases of the pandemics for commonly encountered pandemic scenarios by all stakeholder involved in controlling pandemic.

The plan is a dynamic document and the integrity of the plan will be validated by conducting table top exercises in which the stake holders and responsible officers rehearse their respective parts of the plan by solving different scenarios of pandemic influenza. Any missing gaps in the planning process or protocol will be subsequently incorporated in the plan.

While a large component of the plan has already been implemented, support to ensure minimum disruption of the pandemic influenza pandemic on the Mauritian population, additional resources will be required for infrastructure of hospital and laboratory, manpower, supplies and equipment and logistic support.
1 INTRODUCTION

Under the new International Health Regulation (IHR 2005) Member States are required to report any novel virus to World Health Organization as a Public Health Emergency of International Concern (PHEIC). There is no accurate way to predict the arrival of a pandemic strain of influenza besides active surveillance. Invariably all human pandemic influenza to date has had a genetic component that is avian or swine. For this reason, intensive surveillance is carried by the Global Influenza Surveillance Network of WHO and its collaborators. Presently, there is novel influenza virus infection caused by an avian strain of MERS-CORONAVIRUS and in future there may be other strains. Therefore, a MERS-CORONAVIRUS pandemic influenza preparedness plan has been prepared.

So far no human cases of novel MERS-CORONAVIRUS influenza virus has been noted in the African continent and in Mauritius. However, with increased travel link to China and Asia the eventual arrival of this virus might be possible in Mauritius. This virus has not yet acquired the potential to cause a full pandemic worldwide and increase in virulence leading to higher death rates than seen presently. One way to mitigate the negative consequences of the pandemic influenza pandemic is to take timely public health measures that have been defined in pandemic preparedness plan. WHO has requested Member States to activate their Pandemic Preparedness Plan (PPP). This document outlines the PPP of the Government of Mauritius, consisting of five major strategic directions. Its serves as a blueprint for actions and formulation of standard operating procedures (SOP) by all stakeholders.

These strategic directions as associated with relevant specific activities are described in this plan. A pandemic is preceded by a pre-pandemic alert phase and when a pandemic comes it usually does not affect all countries at the same time. These epidemiological features of influenza offer windows of opportunity for instituting mitigation measures and the pandemic preparedness plan of the Government of Mauritius has been tailored to this end.

1.1 How to use this operational plan

To facilitate and monitor implementation of the plan, the necessary actions for each of four different scenarios are given namely:

1. When there is no imported or indigenous cases
2. When imported index cases are localized in the island
3. When secondary cases are localized in the island
4. When there is widespread cases in the island
The necessary actions and associated standard operating procedures (SOP) or guidelines are given in table 1. The responsible party has simply to consult the relevant sections and the SOPs that have been numbered for ease of reference.

**RATIONALE FOR OPERATIONAL PLAN**

- **No imported cases**
  - 1. Surveillance at ports and communities
  - 2. Containment at source

- **Imported cases Localized but no causing secondary cases in the island**
  - 1. Enhanced surveillance at ports and in community
  - 2. Implement all pharmaceutical and non-pharmaceutical interventions

- **Secondary cases occur in Mauritius but transmission is limited**
  - 1. Enhances community level surveillance
  - 2. Aggressively implement all pharmaceutical and non-pharmaceutical interventions including zoning and closing of infected public places

- **Widespread transmission of H7N9 in Mauritius**
  - 1. Switch from surveillance and containment to mitigation approach
  - 2. Defer non-essential medical services
  - 3. Increase surge capacity of health facility by make-shift hospitals
Table 1: summary of Actions to be implemented during either global pandemic alert or pandemic period for MERS-CORONAVIRUS

<table>
<thead>
<tr>
<th>No imported or indigenous cases in island</th>
<th>Only imported cases localized in island</th>
<th>Secondary cases localized in island</th>
<th>Widespread cases island wise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COORDINATION</strong></td>
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<tr>
<td>Action protocol</td>
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<tr>
<td>Constitute pandemic committee</td>
<td>1. command center at MOH</td>
<td>Implement crisis management committee</td>
<td>Maintain crisis management protocol Crisis protocol</td>
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<tr>
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<td>2. intersectoral committee</td>
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<td>3. Communication</td>
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<td><strong>COORDINATION</strong></td>
<td>Activate pandemic committee</td>
<td>Intersectoral protocol for</td>
<td>Design crisis protocol</td>
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<tr>
<td><strong>COORDINATION</strong></td>
<td>Create intersectoral crisis management committee</td>
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<tr>
<td><strong>COORDINATION</strong></td>
<td>Implement crisis management committee</td>
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<td><strong>COORDINATION</strong></td>
<td>Design crisis protocol</td>
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<td><strong>COORDINATION</strong></td>
<td>Maintain crisis management committee</td>
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<td><strong>COORDINATION</strong></td>
<td>Crisis protocol</td>
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<tr>
<td><strong>MONITORING</strong></td>
<td>All protocols in algorithms 1 and 2</td>
<td>1. All protocols in algorithms 1 and 2</td>
<td>Monitor disease trend</td>
</tr>
<tr>
<td>Monitor all ports of entry</td>
<td>Implement Enhanced surveillance at points of entry</td>
<td>2. implement Contact tracing</td>
<td>Surveillance SOP to be developed</td>
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<tr>
<td><strong>MONITORING</strong></td>
<td>1. All protocols in algorithms 1 and 2</td>
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<tr>
<td><strong>CONTAINMENT</strong></td>
<td>1. Isolate and treat patient</td>
<td>1. Isolate and treat cases</td>
<td>1. Manage sick patients Algorithm4 and containment protocols 1-6</td>
</tr>
<tr>
<td>Review patient management protocols</td>
<td>2. implement social distancing at community level</td>
<td>2. Consider zoning for closing schools and public gathering</td>
<td>2. Implement Triage of patients</td>
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<td>3. Distribute health message</td>
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<tr>
<td><strong>CONTAINMENT</strong></td>
<td>1. All protocols in algorithms 1 and 2</td>
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<td><strong>CONTAINMENT</strong></td>
<td>2. Containment protocols 1-6</td>
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<td><strong>CONTAINMENT</strong></td>
<td>1. Isolate and treat cases</td>
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<tr>
<td><strong>CONTAINMENT</strong></td>
<td>2. Consider zoning for closing schools and public gathering</td>
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<tr>
<td><strong>CONTAINMENT</strong></td>
<td>Infection control protocol number Use of antiviral protocol number Zoning protocol number Social distancing protocol number</td>
<td></td>
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<tr>
<td><strong>HEALTH SECTOR READINESS</strong></td>
<td>Containment SOP4 Procure medicine and supply for 2-3 months Protocols of Annex5 Prepares surge capacity of health sector Containment protocols 4-6 Mitigate epidemic All containment SOPs</td>
<td></td>
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</tr>
<tr>
<td>Stock pile medicine and supply</td>
<td>Table top protocol number Simulation protocol number</td>
<td>Use during simulation Deploy backup Protect staff and deploy back up</td>
<td></td>
</tr>
<tr>
<td>Develop protocols</td>
<td>Containment SOP4</td>
<td>Deploy backup</td>
<td>Protect staff and deploy back up</td>
</tr>
<tr>
<td>Build manpower</td>
<td>Containment SOP4</td>
<td>Use during simulation Deploy backup Protect staff and deploy back up</td>
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<tr>
<td><strong>HEALTH SECTOR READINESS</strong></td>
<td>Containment SOP4</td>
<td>Protect staff and deploy back up</td>
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<tr>
<td><strong>HEALTH SECTOR READINESS</strong></td>
<td>Containment SOP4</td>
<td>Containment SOPs 1-7</td>
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</table>
2 ACTIONS TO BE TAKEN WHEN THERE IS NO IMPORTED OR INDIGENOUS MERS-Coronavirus IN MAURITIUS

2.1 Coordination

Rationale

To define the role, function and responsibilities of each stakeholder, achieve harmonization and minimize duplication, redundancy or contradictory activities.

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

The intersectoral committee on pandemic implementation will be headed by the Honourable Minister of Health and Wellness. The members from the Ministry of Health and their contact details are given in Appendix 1.

The members of the non-health sectors and their contact details are given in Appendix 2.

2.1.2 Action 2: 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 importation of cases, outbreaks etc will be channeled from the site of occurrence to the appropriate directors by phone and fax
- The directors will inform the minister right away and also other directors
- The directors will delegate actions to be taken to the relevant officers.

2.1.3 Action 3: Constitute a crisis management committee

Another task of the pandemic committee is to constitute a crisis management committee to reviewing the situation during a pandemic and issuing interim or revised guidelines and SOPs. The decision making body rests with the Ministry of Health and Wellness and the Head of command is the Hon. Minister of Health & Wellness. Other members include:

- Senior Chief Executive, Ministry of Health & W
- Senior Chief Executive, Prime Minister’s Office
- Director General Health Services
- Representative from non-health sectors
- Other representative as deemed necessary according to the gravity of the situation.
2.2 Surveillance for the virus in Mauritius

**Rationale:** to detect the first entry of the MERS-CORONAVIRUS virus in Mauritius

Surveillance for the virus among crew-members and incoming passengers will be undertaken at:

1. Airport
2. Sea port
3. Hotels and guest houses
4. In addition community-level surveillance will be done.

Figure 1 shows the algorithm for screening crew-members and incoming passengers from airport and sea ports. The following procedures will be followed:

**2.2.1 Action 1:** implement SOP for monitoring arrival from MERS-CORONAVIRUS from endemic areas presently from Middle-East

1. Compulsory completion of Health Declaration Form
2. Health authorities Senior Health Inspectors follow up all passengers from high risk areas for 7 days post arrival
3. Is a passenger develops flu like symptoms
   a. The respective Regional Health RMO conducts a medical examination using standard case definition criteria by Surveillance SOP number 2
4. If subjects meet case definition of suspected criteria,
   a. The subject is sent to isolation facilities at a designated hospital/health institution.
   b. Close contacts of the suspected case are sent for quarantine station or home-confinement for seven days
   c. Specimens for MERS-CORONAVIRUS isolation is taken following instruction of Surveillance SOP number
**ALGORITHM 1: CASE MANAGEMENT OF MERS-CORONAVIRUS FOR INCOMING PASSENGERS**

**Category of passenger or crew**

- **Sick on board during the journey**
  - The commander informs Airport Control tower (ATC) and implements public health emergency measures of IHR

- **Suspected case detected in terminal by thermal scanner or airport Staff**
  - ATC informs the duty terminal coordinator (DTC) on 254-1565
  - Airport Staff informs DTC on 2541565
  - DTC informs Airport Medical Services (AMS on 253-1984/253-2189)
  - The Senior Health Inspector (SHI) on 250-2321
  - All concerned ground personnel as per AML protocol

- **Airplane passenger and close contacts taken to Medical Post. Other passengers are kept on board**
  - The Senior Health Inspector acts as Public Health Incident Commander (PHIC) and informs the following team coordinators and implement the following actions as defined in Annex 4

  **LOGISTIC TEAM**
  - Collects passport
  - Gathers information on case/contacts tracing
  - Screen follow up healthy person and contact
  - Arranges for ambulance/police escort
  - SEE APPENDIX 4 FOR FULL LIST OF ACTIVITIES

  **EVENT MANAGER TEAM**
  - Deal with relative
  - Coordinate press communiqué
  - Advise on PA content
  - Arranges interpreters
  - Baggage handling
  - Monitors all team
  - SEE APPENDIX 4 FOR FULL LIST OF ACTIVITIES

  **BIOSAFETY TEAM**
  - Ensure all staff wears PPE
  - Advisers on quarantine of airport
  - Shutting of air conditioner
  - List of exposed airport staff for follow up
  - Follow up of all airport staff exposed to H7N9
  - SEE APPENDIX 4 FOR FULL LIST OF ACTIVITIES
Algorithm 2: Triage and Referral of Incoming Passengers of MERS-Coronavirus

**Category of passengers or crew**

- Sick on board during the journey
  - The commander informs Airport Control tower (ATC) and implements public health emergency measures of IHR and ICAQ, SEE **ALGORITHM 1**
  - 1. The aircraft is parked at a secure site.
  - 2. Health authorities board the plane (Airport Doctor, nurse and Senior Health Inspector).
  - 3. Passenger is taken away to be assessed in a separate area, followed by close contacts.
  - 4. Other passengers remaining on board
    - Medical assessment at Medical post
      - Meet case definition of a suspected case. **See surveillance SOP 1**
      - Fast track for airport formalities. **See AML SOP**
      - Close contacts of case: sent for quarantine after assessment (At Quarantine after assessment station or at home). **See algorithm 3**
    - Does not meet case definition
      - Check Health Declaration Card
      - Follow up

- Not sick on board or during the journey
  - Suspected in terminal
    - Isolate suspected case as in Algorithm 1
  - Contacts of Suspected
  - Normal
    - Check Health Declaration Card
    - On surveillance at residence
    - Normal exit procedure
2.2.2 Action 2: implement SOP for enhanced surveillance at the community level

1. Collect specimens of throat swabs by surveillance SOP number 3 from all 5 regional hospitals on a weekly basis from patients with flu-like illness (ILI)
2. Collect similar specimens from private clinics
3. Characterize for MERS-CORONAVIRUS by Surveillance SOP number 3

2.3 Health sector readiness

The following actions are required to get strengthen the health sector readiness.

2.3.1 Action 1: Stock piling of medicine and supply

1. First conduct an assessment of available stock of medicine, supplies and equipment by means of health readiness SOP number 1.
2. Second stock pile the supplies for over a 2-3 month period

2.3.2 Action 2: Develop all protocols

1. Compile a list of protocols and SOP to be used in the pandemic phase by reference to Appendix 3
2. Develop and field test the protocols accordingly

2.3.3 Action 3: Build manpower

- A cadre of doctors and health care personnel including nurses, health inspectors and technicians conducting training in the following areas:
  - Implement surveillance in accordance with surveillance SOP numbers
  - Investigation,
  - Detection and management of suspected and confirmed cases of MERS-CORONAVIRUS in accordance with surveillance SOP numbers
  - Proper use of PPE in accordance with containment SOP number
  - Bio-safety for patients handling, environmental hygiene in accordance with containment SOP number

3 ACTIONS TO BE TAKEN WHEN THERE ARE ONLY IMPORTED CASES OF MERS-CORONAVIRUS IN MAURITIUS
3.1 **Coordination**

3.1.1 **Action 1: activate the intersectoral committee headed the Ministry of Health and Wellness**

The intersectoral committee on pandemic implementation will be headed by the Honourable Minister of Health and Wellness. The members from the Ministry of Health and their contact details are given in Appendix 1.

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3.1.2 **Action 2 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 importation of cases, outbreaks etc will be channeled from the site of occurrence to the appropriate directors by phone and fax
- The directors will inform the minister right away and also other directors
- The directors will delegate actions to be taken to the relevant officers
- All information will be used for action to preempt the spread of the virus and all members of the committee must be informed

3.1.3 **Action 3: activate the crisis management committee**

Another task of the pandemic committee is to constitute a crisis management committee to reviewing the situation during a pandemic and issuing interim or revised guidelines and SOPs. The decision making body rests with the Ministry of Health and Wellness and the Head of command is the Hon. Minister of Health & Wellness. Other members include:

- Senior Chief Executive, Ministry of Health & W
- Senior Chief Executive, Prime Minister’s Office
- Director General Health Services
- Representative from non-health sectors
- Other representative as deemed necessary according to the gravity of the situation.

3.2 **Surveillance for the virus in Mauritius**

*Rationale: to detect the first entry of the MERS-CORONAVIRUS virus in Mauritius*

Surveillance for the virus among crew-members and incoming passengers will be undertaken at:

1. Airport
2. Sea port
3. Hotels and guest houses
Figure 1 shows the algorithm for screening crew-members and incoming passengers from airport and sea ports. The following procedures will be followed:

### 3.2.1 Action 1: Implement SOP for sick or suspected persons:

1. The commander (or captain of the ship) puts a mask on the person if available and tolerated or enforces respiratory etiquette and cough hygiene according to Surveillance SOP number 1
2. The sick person is segregated from other passengers
3. The close contacts are identified
4. The commander/captain in-charge informs the control tower (for airport) or port authority (for sea ports)
5. The control tower (or port authority) informs the airport doctor or seaport doctor (for seaports)
6. The aircraft is parked at a secure in the case of yacht or cruise ship, docked outside the harbor
7. Health authorities (airport/seaport doctors and Senior Health Inspectors) board the plane/vessel
8. Other passengers remain on board for assessment
9. Medical assessment is conducted at medical post using standard case definition criteria by Surveillance SOP number 2

If subjects meet case definition of suspected criteria,

- a. the subject is put through fast tract of airport formalities following algorithm 1 and 2 and AML protocol
- b. The subject is sent to isolation facilities at a designated hospital/health institution for triage and management
- c. Close contacts of the suspected case are sent for quarantine station or home-confinement for seven days

If subjects do not meet case definition

- a. They complete the health declaration card
- b. Subjects are followed up

### 3.2.2 Action 2: Implement SOP for non-sick passengers coming from high risk countries

1. The high risk country is defined a countries where sustained transmission of MERS-Coronavirus exists
2. Consult latest list of countries issued by WHO
3. Check health declaration card
4. Normal exit
5. Follow up in residence or hotel

### 3.2.3 Action 3: Implement SOP for enhanced surveillance at the community level

1. Collect specimens of throat swabs by surveillance SOP number 3 from all 5 regional hospitals on a weekly basis from patients with flu-like illness (ILI)
2. Collect similar specimens from private clinics
3. Characterize for MERS-Coronavirus by Surveillance SOP number 3
3.3 Containment of imported cases

Rationale: Contain the imported to break the chain of transmission to the general public. Use both non-pharmacological and pharmacological measures.

3.3.1 Action 1: Isolation of cases and Quarantine of contacts

- The imported cases are isolated from the port of entry by implementing the SOP (containment SOP2, 3 4 and 6) shown in Algorithm2 below.
Algorithm 3: Any Designated Hospital- Ward Management of Suspected MERS-Coronavirus Cases from Airport/Harbour and Community

Suspected Cases referred from Airport/Harbour/Community

Airport post to inform medical superintendent

Patient transported by ambulance and transferred through back door of hospital from basement directly to 1st floor

Patient received in changing area of Ward by Nursing Officer + Staff of ward

See containment SOP 4

Admitted in Ward with mask + other protective equipment

See containment SOP 2.3

Inform the Medical Records Officer + Doctor on call

Seen by Doctor

Severe cases referred to J. Nehru Hospital. To be seen by Specialist on call.

See algorithm 4 for

Treatment started as per Containment SOP 5 and 7

Protocol for Administration of Tamiflu

Naso Pharyngeal Swab taken and sent to Central Laboratory. See surveillance SOP 2.3

Blood sample for routine investigations.

Infection Control as per protocol

No visitors/other staff allowed in ward
Algorithm 4: Management of MERS-Coronavirus Patients in Isolation Wards at Any Designated Hospital

1. Referred cases from any designated hospital or other institutions
   - Through corridor near MHO mess (fast track)
   - Patient in Isolation Ward
     - (a) Changing Room
     - (b) Attended Ward Manager & Staff
     - See Containment SOP Number 4

2. Special desk in office of Medical Superintendent for communication to relatives & visitors
   - No visitor or other staff allowed in Isolation Ward
   - Infection control Protocol for all staff
     - See containment SOP number 5

3. Treatment decided by Physician & Anaesthetist
   - Medication
   - Ventilation (if need be)
   - Supportive
     - See Containment SOP Number 4.7

4. Investigations
   - (a) Blood
   - (b) Nasopharyngeal swab to Central Laboratory
   - (c) Other

See Containment SOP Number 2 and 3

Admitted in Ward itself
Assessed by Physician/Anaesthetist & RMO on call – Patients & staff to wear protective equipment.
3.3.2 Action 2: personal and environmental hygiene practices when handling the infected cases.
Ensure good hospital practice to limit transmission by adhering to the following protocols:

- Containment protocol no 3 on infection control
- Containment protocol no 4 on wearing and disposing of PPE
- Containment protocol no 5 on environmental hygiene

3.3.3 Action 3: treatment of imported cases
Adhere to containment protocol 5 on the use of Tamiflu for:

- Treatment of imported cases
- Prophylaxis or treatment of health care personnel

3.4 Health Sector readiness

3.4.1 Action 1: procure medicine, supplies for 2-3 months
Implementing Readiness Protocol Number 2

3.4.2 Action 2: Plan surge capacity for handling increased patients
- Design protocol for triage of non-life threatening patient
- Design protocol for temporary hospital by capacity for staff and health care facility
- Design a system for training of core staff

3.4.3 Action 3: Ensure adequate manpower for health and critical services
- Create a roster of available workforce of retirees and volunteers
- Design a training system of core staff
- Design protocol for protection of staff health by adhering to containment SOP numbers 5 and 6 on biosafety measures and use of antivirals

3.4.4 Ensuring bio-safety for Management of MERS-CoV
Measures to prevent release the MERS-Coronavirus virus in the environment are ensured by the following action:

- Designing system for separating infected patients from non-infected patients
- Establishing procedures for safe handling and disposal of infected laboratory waste
- Instituting regular environmental cleaning and disinfection
- Institute guidelines for disposal of dead bodies
4 ACTIONS TO BE TAKEN WHEN LOCALIZED SECONDARY CASES OCCUR IN MAURITIUS

4.1 Coordination

4.1.1 Action 1: increase the frequency of intersectoral committee

4.1.2 Action 2 establish communication strategy within the committee
- Review SOP for communication in order to use the information to contain the spread of the virus
- Establish mechanism for all members of the committee to be informed

4.1.3 Action 3: convene regular meeting of the crisis management committee
Convert the crisis management committee as an advisory group to the pandemic committee

4.2 Surveillance for the virus in Mauritius
In addition to implementing the SOPs associated with algorithm 1 for screening crew-members and incoming passengers from airport and sea ports, implement a surveillance and response protocol for sporadic cases in the community level. For use the algorithm 3 at the community level to imp

4.3 Containment of infected cases
Rationale: Contain the infected cases to break the chain of transmission to the general public. Use both non-pharmacological and pharmacological measures.

4.3.1 Action 1: Isolation of cases and Quarantine of contacts
- The imported cases are isolated from the port of entry in accordance with containment protocol number 4 shown in figure 2.

4.3.2 Action 2: personal and environmental hygiene practices when handling the infected cases.
Ensure good hospital practice to limit transmission by adhering to the following protocols:
- Containment protocol no 3 on infection control
- Containment protocol no 4 on wearing and disposing of PPE
- Containment protocol no 5 on environmental hygiene

4.3.3 Action 3: zoning and social distancing
- Design protocol and criteria for closing infected and disinfection of schools, hotels and other public gathering places
• The crisis management committee must meet to discuss the closure of school, hotels and other public places depending on the degree of spread of MERS-CORONAVIRUS in Mauritius and in keeping with WHO and best international practices.

• Algorithm 5 outlines the steps for school closure

5 ALGORITHM 5: NOTIFICATION PATHWAY FOR SCHOOL CLOSURE

1. Pupils sick at School
2. Apply case definition Surveillance SOP 1 and 2

   Isolate pupil in a separate designated room

   Consult with zone director (see Annex 6 for list)

   Intersectoral committee meeting with Permanent Secretary Moe

   Consult with Regional Public Health superintendent (see Annex 6 for list)

   Mount Emergency Team Response to implement recommendations of Intersectoral meetings about school closure

   Inform parents/responsible party
6 ALGORITHM 6: ALERT AND RESPONSE FOR MERS-CORONAVIRUS AT THE COMMUNITY-LEVEL

- Public Medical Sector i.e AHCs & CHC/MHO
  - Start antiviral treatment of cases and contacts, [see containment SOP no 1 and 2](#)
- Private Medical Sector (private practitioners)
  - Notification of suspected A (H7N9) cases by phone to RRT
  - Domiciliary visit by RRT
  - Criteria case definition fulfilled (RRT). Visit by RRT [see surveillance SOP 1 and 2](#)
  - Inform RPHS of region or RPHS on call
  - Close contact tracing (PHI/HI)
  - Home quarantine for 7 days (RPHS, PHI)
  - Appearance of symptoms (self assessment-hotline Active follow up-HI/HSO)
  - Transfer to health facility isolation with all IC and PPE precautions (regional response team.) [see containment SOP and 3](#)
- Field Surveillance system HI/HSO (ports/hotels etc)
  - Symptomatic treatment (Reg response team) consult containment SOP 2 and 3
  - Following for 7 days (HI/HSO) see containment SOP 3 and 4
  - Release from follow-up (RPHS)
6.1.1 Action 4: treatment of cases
Adhere to containment protocol 5 on the use of Tamiflu for:

- Treatment of cases
- Prophylaxis or treatment of health care personnel

6.2 Health Sector readiness

6.2.1 Action 1: procure enough medicine, supplies to ensure maintenance of health care and critical care staff
Implementing Readiness Protocol Number 2

6.2.2 Action 2: Plan surge capacity for handling increased patients
- Implement protocol for triage of non-life threatening patient
- Design protocol for temporary hospital by capacity for staff and health care facility
- Design a system for training of core staff

6.2.3 Action 3: Ensure adequate manpower for health and critical services
- Review roster of available workforce of retirees and volunteers
- Design a training system of core staff
- Design protocol for protection of staff health by adhering to containment SOP numbers 5 and 6 on biosafety measures and use of antivirals

7 ACTIONS TO BE TAKEN WHEN WIDESPREAD TRANSMISSION OF CASES OCCUR IN MAURITIUS

7.1 Coordination

7.1.1 Action 1: increase the frequency of the intersectoral committee headed the Ministry of Health and Wellness

7.1.2 Action 2 establish communication strategy within the committee
- Implement pandemic communication strategy

7.1.3 Action 3: have regular meeting of the crisis management committee
- Convert the committee to an advisory one

7.2 Surveillance for the virus in Mauritius
Switch from virus surveillance to only a clinical case definition (use surveillance protocol number nn that may be modified by WHO) for monitoring trends in morbidity and mortality
7.3 **Institute Mitigation measures to reduce the effects of the pandemic**

7.3.1 **Action 1: Isolation of cases and Quarantine of contacts**
- Initiate the isolation procedures outlined in algorithm 4 below to implement Containment SOP 2,3,4,5,7 and Surveillance SOP 2,3.

Review the effectiveness of the isolation measures.

7.3.2 **Action 2: personal and environmental hygiene practices when handling the infected cases.**
Ensure good hospital practice to limit transmission by adhering to the following protocols:

- Containment protocol no 3 on infection control
- Containment protocol no 4 on wearing and disposing of PPE
- Containment protocol no 5 on environmental hygiene

7.3.3 **Action 3: zoning and social distancing**
- Design protocol and criteria for closing infected and disinfection of schools, hotels and other public gathering places

7.3.4 **Action 4: treatment of cases**
Adhere to containment protocol 5 on the use of Tamiflu for:

- Treatment of imported cases
- Prophylaxis or treatment of health care personnel

7.4 **Health Sector readiness**

7.4.1 **Action 1: procure enough medicine and supplies to ensure maintenance of health care and critical care staff**
Implementing Readiness Protocol Number 2

7.4.2 **Action 2: Plan surge capacity for handling increased patients**
- implement protocol for triage of non-life threatening patient
- Design protocol for temporary hospital by capacity for staff and health care facility

7.4.3 **Action 3: Ensure adequate manpower for health and critical services**
- activate roster of available workforce of retirees and volunteers
- implement protocol for protection of staff health by adhering to containment SOP numbers 5 and 6 on biosafety measures and use of antivirals
8 Annex 4: A compendium of protocol MERS-CoV

1. Protocol for surveillance and detection of MERS-Coronavirus
2. Protocol for management of infected patients
3. Protocol for prioritization strategy of mask, antiviral and vaccine when available
4. Protocol for treatment and prophylaxis of health care and essential service staff
5. Protocol for triage of patient to reduce pressure on health care system
6. Protocol for use and disposal of PPE
7. Protocol for waste management and environmental cleaning/disinfection
8. Protocol for specimen collection and handling
9. Protocol for international shipment of specimens
10. Protocol for laboratory diagnosis of MERS-Coronavirus
### 9 Annex 5: duties of Senior Health Inspector in capacity of PHIC

<table>
<thead>
<tr>
<th>Team</th>
<th>Contacts/names tel numbers of members</th>
<th>Duties</th>
<th>SOP/clues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic team coordinator</td>
<td></td>
<td>Collects passport</td>
<td>Excise precautions if might be infected, use PPE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gathers information on case/contacts</td>
<td>Gets information from PAX list from manifest of airline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Screen follow up healthy person and contact</td>
<td>Get sitting configuration on board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arranges for ambulance</td>
<td>Include PAX within 1 meter radius OR 2 adjoining rows</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinates press communiqué</td>
<td>Arrange with tour operator to get addresses of contacts</td>
</tr>
<tr>
<td>Event manager coordinator</td>
<td></td>
<td>Establish with AML to get sitting configuration and trace</td>
<td>Help of AML to get sitting configuration and trace</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deal with relative</td>
<td>One standby and permit for next one to come</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate press communiqué</td>
<td>Use persuasion for family protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advises on PA content</td>
<td>If recalcitrant refer to director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arranges interpreters</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baggage handling</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitors all team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinates with director of health services-preventive</td>
<td></td>
</tr>
<tr>
<td>Biosafety coordinator</td>
<td></td>
<td>Supplies and implement use of PPE by all staff</td>
<td>Ensure stock at airport</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advises on quarantine of airport</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Shuttering of air conditioner</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>List of exposed airport staff for follow up</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Disinfectant of airplanes</td>
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<tr>
<td></td>
<td></td>
<td>Environmental cleaning of airports</td>
<td></td>
</tr>
</tbody>
</table>
10 Surveillance SOP number 1: Case definition of human (MERS-Coronavirus) virus infection

Currently based on CDC guidelines

1. A **Suspected** case of (HINI, 2009) virus infection is defined as a person with acute febrile respiratory illness (*1) with onset
   - within 10 days of close contact (*2) with a person who is a confirmed case of (MERS-Coronavirus 2013) virus infection or
   - within 10 days of travel to an area where there are one or more confirmed (MERS-Coronavirus 2013), or
   - resides in a community where there are one or more confirmed MERS-Coronavirus (2009) influenza cases.

2. A **Probable Case**: A patient with illness compatible with influenza for whom laboratory diagnostic testing is positive for , negative for H1, negative for H1pdm09, and negative for H3 by real-time reverse transcriptase polymerase chain reaction (RT-PCR), and thereforesubtypeable.

3. A **confirmed case** of (MERS-Coronavirus) virus infection is defined as a person with an acute febrile illness with laboratory confirmed (MERS-Coronavirus) virus infection by one or more of the following tests:
   1. Real-time RT – PCR
   2. Viral culture

*1 Acute respiratory illness is defined as recent onset of at least two of the following: rhino rhea or nasal congestion, sore throat, cough (with or without fever or feverishness).
*2 Close contact is defined as:- within about 6 feet of an ill person who is a confirmed or suspected case of (MERS-Coronavirus) virus infection.
11 Surveillance SOP number 2: Specimen Collection procedure (version 1 date: September 6, 2021)

A laboratory investigation form (see surveillance SOP number 4) should be filled with the patient’s data
Obtain a VTM cryovial from -20°C and melt it by twirling between your fingers

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.

![Image of pharynx and tongue depressor]

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.
12 Surveillance SOP number 3: Guidance on Specimen storage and transport

Duration of Viral Shedding

People may be contagious from one day before they develop symptoms to up to 7 days after they get sick. Children, especially younger children, might potentially be contagious for longer periods.

Preferred Respiratory Specimens -- The following should be collected as soon as possible after illness onset: nasopharyngeal swab/aspirate or nasal wash/aspirate. If these specimens cannot be collected, a combined nasal swab with an oropharyngeal swab is acceptable. For patients who are intubated, an endotracheal aspirate should also be collected.

Specimens should be placed into sterile viral transport media (VTM) and immediately placed on ice or cold packs or at 4°C (refrigerator) for transport to the laboratory. Recommended infection control guidance is available for persons collecting clinical specimens in clinics and other clinical settings and laboratory personnel see containment SOP number 2.

Swabs

Ideally, swab specimens should be collected using swabs with a synthetic tip (e.g. polyester or Dacron ®) and a metal or plastic shaft. Swabs with cotton tips and wooden shafts are not recommended. Specimens collected with swabs made of calcium alginate are not acceptable. The swab specimen collection vials should contain 1-3 ml of viral transport medium (e.g. containing, protein stabilizer, antibiotics to discourage bacterial and fungal growth, and buffer solution), such as M4RT or the BD Universal Viral Transport System.

Storing Clinical Specimens – All respiratory specimens should be kept at 4°C during transport to the Virology Unit of the Central Public Health Laboratory. If transport is not possible, then they can be placed at 70°C freezer is not available, specimens should be kept at 4°C, preferably no longer than 1 week.

Labeling specimen and filing the laboratory request form. All specimens should be labeled clearly with patient name and the laboratory investigation form should be completely filled in and enclosed in a separate envelope.
13 **Surveillance SOP number 4: Laboratory Investigation Form (Version 1: dated 16 September 2013)**

<table>
<thead>
<tr>
<th>Health Region: .................................................................................................................................</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer ID Number (Cryovial number): .........................................................................................</td>
</tr>
<tr>
<td>Date of Collection: dd mm yyyy</td>
</tr>
<tr>
<td>.........................................................................................................................................................</td>
</tr>
<tr>
<td>Patient Information:</td>
</tr>
<tr>
<td>Age: Years ☐ ☐ Months ☐ ☐</td>
</tr>
<tr>
<td>Residence (city): ..................................................................................................................................</td>
</tr>
<tr>
<td>Date of onset of illness dd mm yyyy</td>
</tr>
<tr>
<td>History of travel to high risk area Yes ☐ No ☐</td>
</tr>
<tr>
<td>If yes country visited: ............................................................................................................................</td>
</tr>
<tr>
<td>Contact with someone suffering from MERS-CoV: ........................................................................................</td>
</tr>
<tr>
<td>Date Specimen sent to the laboratory: dd mm yyyy</td>
</tr>
<tr>
<td>Date Specimen received in the laboratory: dd mm yyyy</td>
</tr>
<tr>
<td>Condition of specimen on receipt: Frozen ☐ Cold ☐ Room temperature ☐</td>
</tr>
<tr>
<td>Signature: ................................................................................................................................................</td>
</tr>
</tbody>
</table>
Date: ..............................................................
14 Surveillance SOP Number 5 Laboratory Testing Guidance

Tell-tale sign for MERS-Coronavirus (2013): Any isolate that is non-typable by the currently available WHO reagent or giving low reactivity should be further tested for MERS-Coronavirus (2009) by the recommended tests below.

Recommended Tests for MERS-Coronavirus (A/2013)

Real-time RT-PCR for β, B, H1, H3 in WHO Reference Laboratory is recommended. Currently, (MERS-Coronavirus) virus will test positive and negative H1 negative for H1pdm09 and negative for H3 by real-time RT-PCR. If reactivity of real-time RT-PCR for is strong (e.g. Ct≤30) it is more suggestive of a novel virus. Confirmation as (MERS-Coronavirus) virus is performed at WHO Coordinating Centres.

Rapid antigen test – Also, these tests have unknown sensitivity and specificity to detect human infection with (MERS-Coronavirus) virus is clinical specimens, and have suboptimal sensitivity to detect seasonal influenza viruses. Therefore, a negative rapid test could be a false negative and should not be assumed a final diagnostic test for influenza infection.

Viral culture – Isolation of (MERS-Coronavirus) virus is diagnostic of infection, but may not yield timely results for clinical management. A negative viral culture does not exclude infection with (MERS-Coronavirus) virus.

Shipping of specimens/isolate to WHO collaborating Centre: Any specimen that cannot be confirmed by...
15 Containment SOP number 1: illustration of proper hand-washing
16 Containment SOP Number 2: use of PPE (version 1 dated 5th June 2009)

All health care workers providing care for suspected or confirmed MERS-Coronavirus (2013) 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 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.
17 Containment SOP number 3: Illustration of how to wear and dispose PPE (version 1: dated Tuesday April 16, 2013)
18 Containment SOP 4: Patient Care Checklist

New (MERS-Coronavirus)  See WHO website (www.who.int) for latest version

UPON ARRIVAL TO CLINICAL SETTING/TRIAGE
- Direct patient with flu-like symptoms to designated waiting area
- Provide instruction and materials to patient on respiratory hygiene/cough etiquette
- Put medical/surgical mask on patient if available and tolerable to patient

UPON INITIAL ASSESSMENT
- Record respiratory rate over one full minute and oxygen saturation if possible
- If respiratory rate is high or oxygen saturation is below 90% alert senior care staff for action
- Record history, including flu-like symptoms, date of onset, travel, contact with people who have flu-like symptoms, co-morbidities
- Consider specialized diagnostic tests (e.g. RT-PCR)  (see surveillance SOP 3,4)
- Use medical/surgical mask, eye protection, gloves when taking respiratory samples
- Label specimen correctly and send as per local regulations with biohazard precautions
- Consider alternative or additional diagnoses
- Report suspected case to local authority

INITIAL AND ONGOING PATIENT MANAGEMENT
Supportive therapy for new (MERS-Coronavirus) patient as for any influenza patient including:
- Give oxygen to maintain oxygen saturation above 90% or if respiratory rate is elevated (when oxygen saturation monitor not available)
- Give paracetamol/acetaminophen if considering an antipyretic for patients less than 18 years old
- Give appropriate antibiotic if evidence of secondary bacterial infection (e.g. pneumonia)
- Consider alternative or additional diagnoses
- Decide on need for antivirals* (oseltamivir or zanamivir), considering contra-indications and drug interactions  (see containment SOP 7)

BEFORE PATIENT TRANSPORT/TRANSFER
- Put medical/surgical mask on patient if available and tolerable to patient

BEFORE PATIENT ENTRY TO DESIGNATED AREA (isolation room or cohort)
- Post restricted entry and infection control signs
- Provide dedicated patient equipment if available
- Ensure at least 1 metre (3.3 feet) between patients in cohort
- Ensure local protocol for frequent linen and surface cleaning in place

BEFORE ENTERING DESIGNATED AREA (isolation room or cohort)
STAFF AND VISITORS
- Put on medical/surgical mask
- Clean hands

BEFORE LEAVING DESIGNATED AREA (isolation room or cohort) STAFF AND VISITORS
- Remove any personal protective equipment
- (gloves, gown, mask, eye protection)
- Dispose of disposable items as per local protocol
- Clean hands
- Clean and disinfect dedicated patient equipment and personal equipment that has been in contact with patient
- Dispose of viral-contaminated waste as clinical waste  (see containment SOP 6)

BEFORE DISCHARGE OF CONFIRMED OR SUSPECTED CASE
- Provide instruction and materials to patient/caregiver on respiratory hygiene/cough etiquette
- Provide advice on home isolation, infection control and limiting social contact
o Record patient address and telephone number

AFTER DISCHARGE
o Dispose of or clean and disinfect dedicated patient equipment as per local protocol
o Change and launder linen without shaking
o Clean surfaces as per local protocol
o Dispose of viral-contaminated waste as clinical waste

(See containment SOP 6)
19 Containment SOP number 5: Infection control for Inpatient Ward Management (version 1: dated September 2013)

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 a 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

- Minimise contact between health-care workers and patients as much as possible.
- Only clinical workers who have been educated about influenza 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 contract 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.

Routing hand antisepsis 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. (see containment SOP number 1)

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 mo-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.
## 20 CONTAINMENT SOP NUMBER 6: ENVIRONMENTAL HYGIENE BY DISINFECTANT USE (VERSION 1 DATED September 2013)

<table>
<thead>
<tr>
<th>Disinfectant</th>
<th>Recommended Use</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>Disinfection of material/surfaces contaminated with blood and body fluids.</td>
<td>Irritates mucous membranes, the skin and the airways, decomposes under heat and light, and reacts readily with other chemicals.</td>
</tr>
</tbody>
</table>

### Rationale

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.

### Example of how to dilute bleach

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 “1 part”. Using the same spoon, count the number of spoonfuls of water needed to fill 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

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)

Contact times for different uses

Disinfection by wiping of

Do not mix with strong acids to avoid release of chlorine gas.

Corrosive to metals.

Surfaces must be cleaned of organic materials such as secretions, mucus, vomit, faeces, blood or other body fluids before disinfection or immersion.
<table>
<thead>
<tr>
<th>Disinfectant</th>
<th>Recommended Use</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 parts of water. So 99 parts 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.</td>
<td>nonporous surfaces: a contact time of ≥10 min is recommended. Disinfection by immersion of items: a contact time of 30 min is recommended.</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>Small surfaces (e.g. rubber stoppers of multiple-dose medication vials and thermometers) and occasionally external surfaces of equipment (e.g. stethoscopes and ventilators)</td>
<td>Flammable, toxic, to be used in well-ventilated areas and only on small surfaces, avoid inhalation. Keep away from heat sources, electrical equipment, flames, hot surfaces. 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.</td>
</tr>
</tbody>
</table>
21 Containment SOP number 7: Protocol for Antiviral Therapy for MERS-Coronavirusflu (version 1: dated September 2013)

**Prophylaxis**
1. Close household contacts of a confirmed or suspected case
2. Health care providers or public health workers who were not using appropriate personal protective equipment during close contact with a confirmed or suspected case

**Adult dose:** Oseltamivir (Tamiflu) (o) 75 mg twice daily for 10 days

**Pediatric dose:**
- < 3 months: not recommended
- 3-5 months: 20 mg (o) o.d
- 6-11 months: 25 mg (o) o.d

**Age (>1 year)**
- <15 kg: 30 mg (o) o.d
- 15-23 kg: 45 mg (o) o.d.
- 23-40 kg: 60 mg (o) o.d
- >40 kg: adult dose

**Treatment:**
1. Adult

Oseltamivir: 75 mg (o) b.d for 5 days

2. Pregnancy:

Potential benefit to be weighed against potential risk to the embryo/or foetus

3. Pediatrics age < 1 year

- < 3 months: 12 mg (o) b.d.x 5 days
- 3-5 months: 20 mg (o) b.d x 5 days
- 6-11 months: 25 mg (o) b.d.x 5 days

**Age (>1 year)**
- <15 kg: 30 mg (o) o.d x 5 days
- 15-23 kg: 45 mg (o) o. x 5 days
- 23-40 kg: 60 mg (o) o.d x 5 days
- >40 kg: adult dose

*This is a protocol for general guidance. Individual clinicians will need to take decisions for treatment*
22 Preparedness SOP number 1: Supply Checklist for Pre-Positioning (version 1 dated September 2013)

- 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
- Stretcher, body-bags for burial teams
- Antiviral medications (oseltamivir 75 mg, see below)
- Antibiotic medications
- Intravenous fluids/cannulae/giving sets
## 23 Preparedness SOP number 2: Calculation of and inpatient supplies  
(version 1: dated September 2013)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Formulation</th>
<th>Cost of 1 course (MRU)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oseltamivir (for treatment)</strong></td>
<td>A 5-day course for 15-35% of staff. Increase by 10% for a buffer (2 pills per day).</td>
<td>Pack of 10 capsules</td>
<td></td>
</tr>
<tr>
<td><strong>Oseltamivir (for prophylaxis)</strong></td>
<td>Prophylaxis for 100% of staff, for (average of) 6 weeks (1 pill per day).</td>
<td>Pack of 10 capsules</td>
<td></td>
</tr>
</tbody>
</table>
| **IV fluids (Ringer lactate and giving sets)** | Anticipate 500-600 inpatient admissions.  
Average 3 litres/admission = 1500-1800.  
Average 3 giving sets/admission = 1500-1800 giving sets. | Ringer Lactate = 1-litre bags  
Variable depending on source |                        |
| **IV Cannulae various gauges**     | Anticipate 500-600 inpatient admissions.  
Average 2 cannulae per day = 100-1200 cannulae. | Gauges 14, 16, 18, 20, 22  
Variable depending on source |                        |
| **Needles for injection**          | Anticipate 500-600 inpatient admissions.  
Assume all need injectables if hospitalized.  
Average 2 needles per day = 1000-1200 needles. | Gauge 21  
Variable depending on source |                        |
| **Paracetamol**                    | Anticipate 500-600 inpatient admissions (and 3500 outpatient consultations).  
Anticipate 20 tablets per patient.  
Total 82,000 tablets. | 500 mg  
Variable depending on source |                        |
| **Stationery for records/notes**   | Up to 3500 seeking care at outpatient department, up to 600 admissions. Case notes, laboratory/referral forms. | Variable depending on source |                        |