



## **GUIDELINE FOR COVID-19 SAMPLE COLLECTION BY MOBILE UNIT OPERATIONS AND INFECTION CONTROL**

### **BACKGROUND**

In December 2019, a novel coronavirus (2019-nCoV) was identified as the causative agent of a severe acute respiratory illness among people exposed in a seafood market in Wuhan, China\*; SARS CoV-2 Virus shedding patterns are not yet well understood and further investigations are needed to better understand the timing, compartmentalization, and quantity of viral shedding to inform optimal specimen collection. To date, respiratory samples have the greatest yield however the virus can be detected in other specimens, including stool and blood.

The MOHW has expanded the testing protocol to include not only the confirmation of suspected cases but also to detect spread in the community.

The decision to test should be based on clinical and epidemiological factors and linked to an assessment of the likelihood of infection. The following groups are to be tested:

### **SAMPLING PROTOCOL**

- All persons who meet the suspected case definition
- All contacts who have symptoms
- Investigation of cases and clusters of COVID-19
- ILI Sentinel Sites based on estimated weekly quotas (See surveillance protocol)

PCR testing of asymptomatic or mildly symptomatic contacts is considered in the assessment of individuals who have had contact with a COVID-19 case.

### **CASE DEFINITIONS FOR COVID-19**

#### 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 a history of travel to



or residence in a location reporting community transmission 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 symptom onset;

OR

C. A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

#### Probable case

A. A suspect case for whom testing for the COVID-19 virus is inconclusive.

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

OR

B. A suspect case for whom testing could not be performed for any reason.

#### Confirmed case

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

### **SPECIMEN COLLECTION BY THE MOBILE UNIT**

- Specimens to be collected are for persons who fall in the groups described above.
- All specimens collected for laboratory investigations should be regarded as potentially infectious.
- Samples should be collected by trained personnel and applying all biosafety instructions including the use of personal protective equipment appropriate for respiratory viruses.
- All health care workers who collect specimens are to adhere rigorously to infection prevention and control guidelines.



At minimum, the following respiratory material should be collected:

- Upper respiratory specimens: nasopharyngeal (NP) and oropharyngeal (OP) swab or wash in ambulatory patients

Additional clinical specimens may be collected and these samples will also be collected at the presentation of the patient.

NP and OP Samples should be kept refrigerated (4-8°C) and sent to the laboratory (central, national or reference) where they will be processed within the 24-72 hours of collection. If samples cannot be sent within this period, freezing at -70 °C (or less) is recommended until samples are shipped (ensuring the cold chain is maintained).

## **TRIAGING OF PATIENT**

### **Instructions to be issued to members of Public:**

#### Appointments

- Persons are to arrive up to 5-10 minutes before their scheduled appointment at the mobile unit
- Persons put on a surgical mask and place over nose and mouth. Perform hand hygiene after putting on mask and prior to entering.
- Lines may only consist of 3 persons who are 6 feet apart. All other persons will be asked to return to abode or car.

#### No Appointments

- Persons who develop symptoms while at home are to call the MOHW COVID-19 hotline (see below) and follow instructions.
- If symptoms are severe, persistent or of worsening condition, contact must be made with the MOHW through the COVID-19 hotline to be directed to visit the health centre or the Accident and Emergency Departments and receive advice and assistance about transport and treatment.

#### **MOHW COVID-19 HOTLINES**

- 888-663-5683
- 888-754-7792
- 876-542-5998



- 876-542-6006
  - 876-542-6007
- 
- A medical officer or public health nurse will have to be dispatched along with the Mobile unit for home visits.
  - The mobile unit will be dispatched to the home/location of persons to be sampled. They will provide identification to person to be sampled.
  - They will offer a mask to person to be sampled a mask. Persons put on a surgical mask and place over nose and mouth. Perform hand hygiene after putting on mask and prior to entering.
  - No lines or crowding will be permitted during this type of visit. All other persons will be asked to disperse.

## **MOBILE UNIT OPERATIONS**

### **Instruction to Regional Health Authorities or Parish Health Departments**

#### Staffing and Human Resources

- Identify a medical lead for each dispatching unit and roster them. Medical leads will assume clinical responsibility and oversight for staff on mobile unit. A minimum of 4 medical leads should be identified.
- Identify a pool of drivers and assign 2 drivers to the Mobile Unit services in two shifts (Morning and Night) per day.
- Identify volunteers for the mobile unit. Provide a roster for each dispatch unit. Staff must be released from other clinical duties during period of staffing of the mobile unit.
- Provide an area where Mobile Unit can have briefings and rest during periods of down time. Facility must have access to cots, lockers, shower, restroom and refrigerator for storage of food.
- Assign and roster 2 Male attendants to the mobile unit to assist with safe removal of waste on return of the Mobile Unit.

#### Transport and Equipment

- Ensure that vehicles are in a continued state of readiness by having gas and ensuring timely repairs.

- Ensure that Mobile unit is adequately stocked with Potable water and supplies for hand washing, Personal Protective Equipment and Sampling equipment.
- Assign a cleaning team to ensure that each transport unit is cleaned at the end of a shift. Protocol for cleaning the unit is listed below.
- Provide 2 trolleys for the collection of sharps and medical waste.

### Sundries

- Ensure that mobile unit staff have access to a cell phone or provide credit to team lead to allow for emergency calls.
- Mobile unit staff must be provided with scrubs and personal protective equipment.

### **Instructions for the Medical Lead**

- **The Medical Lead will provide supervision and medical coverage for the mobile unit staff**
- Medical lead is the head of the unit and will receive directives for dispatch of the team from the Health Department, Regional Health Authority or MOH NEOC
- The Medical Lead is to conduct daily briefing of mobile unit
- Provide daily reports to the Health Department.
- Oversee staff welfare and health by keeping a daily log of temperature and symptoms. This information must be recorded in individual staff logs for review.
- Conduct a handover to next rostered lead
- Perform the risk assessment of all staff in lieu of breaches within operation in the field and when positive results are conveyed
- Medical lead will accompany team to site visits where patients have no appointments.

### **Instructions for Health Care Workers**

#### Prior to Dispatch of unit

- Mobile Unit staff should report to dispatch location at least 1 hour prior to departure according to roster.
- Each Mobile unit must have the following staff complement per shift.
  - 2 Persons assigned for sampling



- 1 Person assigned to documentation
  - 1 Driver
  - 1 Medical lead in cases of sampling to be carried out in persons without appointments
- 
- Medical lead is to meet with Mobile unit staff to brief staff on objectives for the day and perform baseline temperature checks for each person.
  - All Mobile Unit staff must sign the daily register and leave a copy with Medical lead at dispatch.
  - The Staff Medical log (Appendix 8) should be utilized for monitoring.

### On the Transport

- Don a pair of gloves and perform cleaning of all counter tops and surfaces using a 1:10 solution of commercial bleach or commercial disinfectant such as cavicide wipes and allow to air dry. Cleaning is to be performed by all staff assigned to the mobile unit.
- Assess the availability of Aerosol Precaution Personal Protective Equipment using checklist below.
- Assess the stocks of blood tubes, syringes, needles using the checklist provided below.
- The work areas within the mobile unit must be functional and ensure that staff donning area is separate from all work areas.
- Signs are to be placed to direct persons to sample area
- The work area is to have the following items available:
  - Hand sanitizing supplies, including solution with at least 62% alcohol
  - Gloves
  - Surgical Masks for patients or staff
  - Disposal bins
  - Swabs and Transport media
  - Igloo with Ice packs and racks
  - Lab forms
  - Biohazard bags
  - Health Education materials on COVID-19

- The Staff area is to have the following items available:
  - Fluid resistant gowns
  - Face shields
  - N95 respirators
  - Disposable gloves
  - Surgical Masks
  - Line listing forms
  - Caps (optional)
  - Overshoes (optional)

#### On return to dispatch

- Staff must remove all bio-hazardous waste from the Mobile Unit on return to dispatch.
- All work areas are to be cleaned using a 1:10 solution of commercial bleach or commercial disinfectant such as cavicide wipes and allow to air dry.
- All high touch areas must be wiped using alcohol preparation greater than 62%.
- Cleaning of these areas must be recorded using the checklist below.
- Male Attendees will don appropriate PPE and remove all medical waste and dispose of it in a manner in keeping with proper infection control protocols for the facility.

## **WORK FLOW**

### **Instructions to Driver**

- On arrival to the location, park unit in a central location with minimal items hindering visibility of all four corners of transport. Park facing in the direction of exit.
- The bus should be left running to facilitate the running of the a/c for climate control while staff are donning essential PPE.
- Once staff have donned PPE, the Driver must shut off the mobile unit and assist staff with opening all windows within unit.
- Driver must perform hand hygiene and don a surgical mask that will be provided at this time.

- Driver is to remain outside of vehicle in mask while patients are within unit.
- Once sampling is complete and staff have completed cleaning. The driver may now assist staff to reseal cabin and return to vehicle.
- Driver may continue to don the surgical mask and change only if item is soiled or wet. Performing hand sanitization prior to and after each change.

### **Instructions for Health Care Workers**

- The Mobile unit transport has 4 work cubicles and the first two cubicles are to be assigned as work spaces. Remaining two cubicles are staff areas for donning of PPE
- Staff should use a buddy system to don PPE.
- PPE should be laid out in the order of donning to ensure proper order. The checklist below will aid the process.
- All Staff taking samples are to perform hand hygiene using the designated sink and then don Personal Protective Equipment for aerosol generating procedures which includes a fluid resistant gown, N95 respirator, gloves and a face shield.
- Once staff have completed this process then the unit cabin will be opened to allow natural ventilation to traverse the cabin.
- Staff should place all sampling equipment required in the work space. This will include the following:
  - 1 VTM
  - 2 swab sticks
  - 1 Vacutainer
  - 1 22 Gauge needle
  - Alcohol Cotton swabs
  - Tourniquet
  - Extra Gloves
  - 1:10 Commercial bleach solution or cavicide wipes
  - Hand towel
  - 1 test tube rack
  - Sample biohazard bags
  - Spill Kit
- Staff should sit in chair facing forward with hands at waist level prior to entrance of patient in the work cubicle



- Once patient is seated then staff should introduce themselves and explain the procedure for testing in order to achieve consent.
- Staff is to advise patient to retain the mask during the procedure to the point of taking the swabs.
- After achieving consent the staff may begin to engage patient and perform the phlebotomy first prior to swabs of nose and mouth.
- Staff must follow the procedure listed below for nasopharyngeal/oropharyngeal swabs.
- The patient will only drop the mask when advised to allow the entry of the swabs to the nose and then the mouth.
- Patients Mask is to be returned to face immediately after the swab stick is removed.
- Staff will ensure that patient is stable before dismissing from mobile unit.
- Samples must be properly labelled then placed in sample biohazard bags.
- Samples are to be placed on ice within the coolers provided with in unit.
- Staff undertake cleaning of workspace once patient has exited unit and safely discard all sharps.
- Staff will doff the gown, face shield and gloves and retain the N95 respirator in a red biohazard bag.
- Staff should perform hand hygiene and don a second pair of gloves to allow for cleaning of high touch areas with alcohol. Once complete tie off the biohazard bag then exit unit with item in gloved hand. Keep bag at arm's length.
- One person should doff gloves and put on a fresh pair of gloves in order to open a second clean biohazard bag for placement of first bag when outside of the vehicle.
- After that is complete, both staff can now, doff all PPE, including the N95 respirator.
- Bag should be sealed outside of unit.
- Staff should perform hand sanitization after sealing bag.
- Staff should wait for 5-10mins to allow solutions to air dry and adequate air exchange within unit before returning to unit and sealing the cabin for return to base.

### **Special considerations:**

- If staff are sampling patients with appointments, then no more than 4 persons can be accommodated at one time. 2 will be within unit and 2 persons will be waiting outside 6 feet apart. All patients are to be in masks during this period.
- Sampling without appointments, then no more than 2 persons can be taken at any period. No persons will be allowed to wait.
- During Sampling, the staff will change gloves in between each patient and ensure hand sanitization prior to donning a new pair of gloves.
- Respirators, Gowns and Face shields will be maintained between 2- 4 patients and should only be changed if they become soiled, moist or contaminated.
- All PPE will be doffed and discarded after the final patient is sampled

### **Breaches and Accidents**

- Any breach or accident noted in the line of performing duties should be conveyed to the Medical Lead within 1 hour of incident.
- In cases of blood spill or spatter the staff should address the item according to the blood spill protocol within this document.
- All Needle stick injuries should be addressed according to the MOHW Health Facilities Infection Control Manual 2014
- If PPE become soiled during any of the sampling procedures, then staff should doff in accordance with protocol outside of the mobile unit under supervision of Medical Lead or team lead.
- All work will be discontinued and patient asked to disembark from unit.

### **Instructions to Medical Lead or Team Lead**

- Medical/ Team Lead will don PPE (Fluid resistant gown, Surgical Mask and gloves) once the transport is stationary.
- Medical/ Team lead will interview each patient, offer a mask and take the history and verify data.
- Medical Lead will remain outside vehicle during process and stay 1 foot from the entrance to bus in order to visualize process.



- If problems arise then Medical Lead will don a N95 respirator and enter vehicle to assist.

**LIST OF PPE TO BE WORN BY STAFF FOR MOBILE UNIT**

<b>PERSONNEL</b>	<b>FLUID RESISTANT GOWN</b>	<b>SURGICAL MASK</b>	<b>N95</b>	<b>GOGGLES/FACE SHIELD</b>	<b>GLOVES</b>
<b>HCW TAKING NPS AND BLOOD SAMPLES (INSIDE)</b>	X		X	X	X
<b>MEDICAL LEAD (OUTSIDE)</b>	X	X	When necessary		X
<b>DRIVER</b>		X			Hand hygiene
<b>MALE ATTENDANT</b>	Coveralls and Apron	X			X
<b>MOBILE UNIT CLEANERS</b>	Coveralls and Apron				Industrial Gloves



## **SAMPLING PROCEDURE FOR SWABS**

Prior to taking any specimen, staff must ensure that the procedure is explained and that verbal consent is achieved.

Patients should be counselled about COVID-19 and educational material dispatched at the end of process.

### **NASOPHARYGEAL/ OROPHARYNGEAL SWAB PROCEDURE**

1. Tilt patient's head back 70 degrees.
2. Insert swab into nostril (Swab should reach depth equal to distance from nostrils to outer opening of the ear). Leave swab in place for several seconds to absorb secretions.
3. Slowly remove swab while rotating it (Swab both nostrils with same swab). Remove swab and place tip of swab into sterile viral transport media tube and snap/cut off the applicator stick.
4. For throat swab, take a second dry polyester swab, insert into mouth, and swab the posterior pharynx and tonsillar areas (Avoid the tongue).
5. Remove swab and place tip of swab into sterile viral transport media tube and snap/cut off the applicator stick.

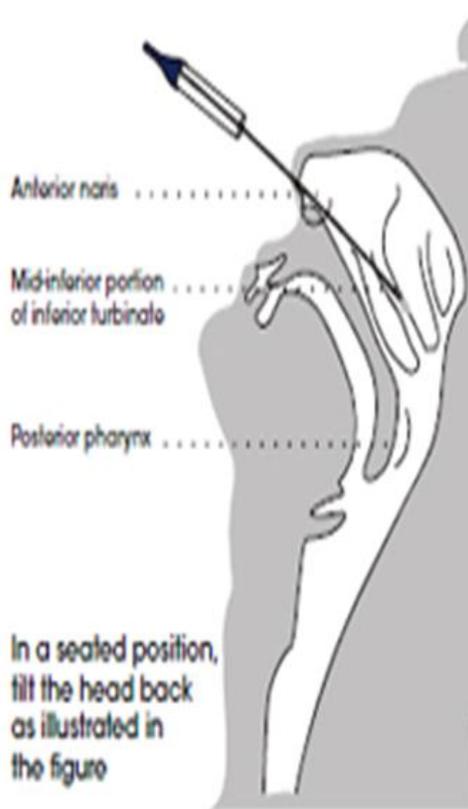
Items required include the following Sterile Dacron/nylon swab and Viral transport media tube (should contain 1-3 ML of sterile viral transport medium).

### **STORING OF SAMPLES**

- Specimens should be placed into sterile viral transport media and immediately placed on refrigerant gel packs or at 4 degrees Celsius in igloo for transport to the state public health laboratory.



## Nasopharyngeal swab method for Respiratory Virus Collection



The laboratory needs high levels of organism to test successfully for respiratory viruses such as RSV, Influenza A & B or parainfluenza virus.

Follow this procedure to yield high levels of organism.

1. Insert flexible nasopharyngeal swab into one nostril.
2. Press the swab tip on the mucosal surface of the mid-inferior turbinate.
3. Briefly rotate the swab once it has been inserted.
4. Leave swab in place for a few seconds to absorb material.
5. Withdraw swab and insert into transport medium.
6. Break swab shaft at score line.

N. B. Rule of thumb to determine when swab is placed properly: insert swab to one-half the distance from the tip of the nose to the tip of the earlobe.





## Venipuncture Procedure

1. Label the tube with the patient's particulars



2. Put tourniquet on the patient about 3-4' above the venipuncture site



3. Ask patient to form a fist so veins are more prominent



4. After finding the vein, clean the venipuncture site with alcohol using circular motion. Allow the area to dry



5. Assemble needle and vacuum tube holder



6. Insert the collection tube into the holder until the tube reaches the needle



7. Remove cap from needle





8. Use thumb to draw skin tight about 1-2" below the venipuncture site



9. Hold the skin tight through step 10. Insert the needle, bevel side up, into the vein



10. Push the tube completely onto the needle. Blood should begin to flow into the tube until vacuum tourniquet is exhausted



11. Release the tourniquet



12. After opening the patient's hand, place



13. Apply mild pressure to the pad





14. Apply bandage or continue applying mild pressure until bleeding has stopped



15. Properly dispose of all contaminated supplies in sharp / biohazard container



16. Place request form and specimen in biohazard bag



## PROCEDURE FOR DONNING OF PPE WITH N95 RESPIRATOR

1. Wash and dry hands prior to putting on PPE.
2. Put on a pair of inside gloves
3. Put on fluid resistant long sleeve gown and tie it to fit appropriately
4. Choose a N95 and apply to face. Adjust the nose piece over nose to make sure it covers the nose, mouth, and chin.
5. Perform a FIT check on the respirator to ensure that there are no leaks
6. Apply protective eyewear in the form of a face shield or goggles.
7. Put on a pair of above wrist gloves. Ensure that the cuff is below the rim of the gloves.

**ISOLATION PRECAUTIONS – AEROSOLS**

**MASK**

- Before entering the room, place a high efficiency respirator mask on (N95, pf2 or equivalent)
- Ensure face mask is correctly adjusted

**GOWN**

- Use when at risk of splashing and contact with secretions
- Possible use of waterproof gown if extensive contact with secretions is anticipated

**GLOVES**

- Single-use against risk of splashing or contact with secretions

**GOGGLES**

- If there is risk of splashing
- Can be replaced by a face shield

Hand hygiene before and after contact with the patient

Single room if possible  
Shared group room with separation of one meter between beds  
Ventilation always at the exterior of the building  
Always keep the door closed

Avoid transfer of patients to other hospital areas  
If transfer is required, the patient must put on a surgical mask at all times whilst outside the room

[www.paho.org](http://www.paho.org)

Pan American Health Organization | World Health Organization



# PROCEDURE FOR DOFFING OF PPE WITH N95 RESPIRATOR

## 1. Take off PPE only with supervision of a Trained Observer:

- Trained Observer reads aloud each step of the procedure
- Healthcare worker repeats back the step they are about perform (talkback)
- Confirm visually that the PPE has been removed properly

### INSTRUCTIONS FOR TRAINED OBSERVER

- Remind staff to avoid actions that may put them at risk (e.g., touching their face)
- Read aloud each step of the procedure
- Healthcare worker repeats back the step they are about perform (talkback)
- Confirm visually that the PPE has been removed properly
- Minimize touching healthcare workers or their PPE during the process
- If contact with the healthcare worker is made, the trained observer immediately disinfects the outer-gloved hands.

## 2. **Inspect** the PPE to assess for visible contamination, cuts, or tears before starting to remove.

- Any PPE visibly contaminated?
- Use a 1:10 bleach disinfectant wipe.

## 3. **Remove Outer Gloves**

- Discard in a step on bin with a red bag

## 4. **Inspect and Disinfect Inner Gloves:**

- Inspect the inner gloves for visible contamination, cuts, or tears
- Disinfect the glove with Alcohol Based Hand Rub



5. **Remove the face shield and dispose in red biohazard bag.** Hand sanitize with alcohol after handling item.
6. **Remove the fluid resistant gown** by loosening the ties and pull free from shoulders. Carefully pull down and turn inside out. Hold gown away from self while rolling into a ball. Discard in biohazard bag. Hand sanitize with alcohol after handling the item.
7. Remove the inner gloves and hand sanitize with alcohol.
8. Remove the Surgical mask or N95 respirator by using hands. Hand sanitize with alcohol and leave the area.



## DONNING SEQUENCE CHECKLIST

1. **Internal Gloves** (nitrile, powder-free, non-sterile. Cuff length preferably reach mid-forearm)  
Yes  No
2. **Long sleeve gowns** (Single use, fluid resistant, disposable, length mid-calf to cover the top of the boots, light colours preferable to better detect possible contamination, thumb/finger loops or elastic cuff to anchor sleeves in place)  
Yes  No
3. **Respirator** (N95, Good breathability with design that does not collapse against the mouth (e.g. duckbill, cup shaped)  
Yes  No
4. **Eye protection** (Made of clear plastic and provides good visibility to both the wearer and the patient, Adjustable band to attach firmly around the head and fit snugly against the forehead, Fog resistant (preferable), Completely cover the sides and length of the face, May be re-usable (made of robust material which can be cleaned and disinfected or disposable.)  
Yes  No
5. **External Gloves** (nitrile, powder-free, non-sterile. Cuff length preferably reach mid-forearm)  
Yes  No



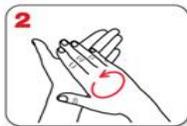
## APPENDIX 1

### HAND WASH AND ALCOHOL HAND RUB

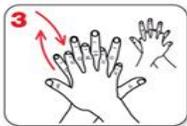
#### How to handrub? WITH ALCOHOL-BASED FORMULATION

**1a**  **1b** 

Apply a palmful of the product in a cupped hand and cover all surfaces.

**2** 

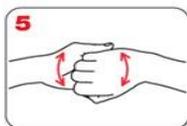
Rub hands palm to palm

**3** 

right palm over left dorsum with interlaced fingers and vice versa

**4** 

palm to palm with fingers interlaced

**5** 

backs of fingers to opposing palms with fingers interlocked

**6** 

rotational rubbing of left thumb clasped in right palm and vice versa

**7** 

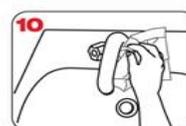
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

**8** 

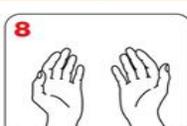
rinse hands with water

**9** 

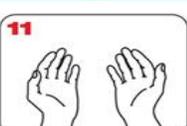
dry thoroughly with a single use towel

**10** 

use towel to turn off faucet

**8** 

...once dry, your hands are safe.

**11** 

...and your hands are safe.

20-30 sec

40-60 sec

WORLD ALLIANCE FOR PATIENT SAFETY

WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

World Health Organization

October 2006, version 1.



**APPENDIX 2**  
**CHECKLIST OF ITEMS**

<b>ITEM</b>	<b>AVAILABLE</b>	<b>NOT AVAILABLE</b>
Red Biohazard bags		
Small Sharps box		
Gloves		
Fluid Resistant Gowns		
Cotton swabs		
Face Shields		
N95 Respirators		
Red top tubes		
Vacutainers		
22 G Needles		
Soap		
Paper hand towel		
62% and above Alcohol Hand Rub		
Tissue paper		
Black garbage bags		



ITEM	AVAILABLE	NOT AVAILABLE
Red Biohazard bags		
Step on bins		
Commercial bleach		
Cleaning rags		
5 gallon buckets		
Industrial gloves		
Bleach cleaning wipes		
Blood Spill Kit		



**APPENDIX 3**

**CLEANING CHECKLIST FOR HIGH TOUCH AREAS**

<b>DATE</b>			<b>MOBILE UNIT #</b>	
<b>HIGH-TOUCH ROOM SURFACES</b>	<b>CLEANED</b>	<b>NOT CLEANED</b>	<b>NOT PRESENT</b>	
Table				
Chair (Patient)				
Chair (Staff)				
Light switch				
Bus inner and outer door knob/Handle				
Bus Railings				
Cupboard knob handles				



## APPENDIX 4

### NEEDLE STICK INJURY REPORT

APPENDIX 3:

STANDARD PRECAUTIONS

Occupational Exposure to Borne Viruses

NATIONAL HIV/ STI PROGRAMME

Needle Stick, Sharp Object Injury and Fluid Exposure Report

1. Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Sex: M F  
Occupation: \_\_\_\_\_
2. Date/Time of Exposure/Injury: \_\_\_\_\_
5. Reported by: \_\_\_\_\_ Date: \_\_\_\_\_
7. Institution where exposure/injury occurred: \_\_\_\_\_
8. Where did the exposure/injury occur?
- |   |                               |                          |   |   |                          |
|---|-------------------------------|--------------------------|---|---|--------------------------|
| A | Ward ( <i>specify</i> ) _____ | <input type="checkbox"/> | G | Operating Theatre   | <input type="checkbox"/> |
| B | Dressing Room                 | <input type="checkbox"/> | H | Dialysis Unit   | <input type="checkbox"/> |
| C | Phlebotomy room               | <input type="checkbox"/> | I | Labour & Delivery Room  | <input type="checkbox"/> |
| D | Outpatient clinic             | <input type="checkbox"/> | J | Service/Utility Area ( <i>laundry, garage, disposal, etc.</i> ) | <input type="checkbox"/> |
| E | ICU                           | <input type="checkbox"/> | K | Other ( <i>specify</i> ): _____                                 |                          |
| F | A&E / Casualty                | <input type="checkbox"/> |   |   |                          |
9. Name of the source patient: \_\_\_\_\_  Source Unknown
10. Docket No. \_\_\_\_\_  Not Applicable
11. Source patient HIV Status:  Positive  Negative  Unknown  
 Source Patient tests positive for other blood borne pathogen (*specify*) \_\_\_\_\_
12. Type of exposure:  Sharp item  Body Fluid exposure (*specify type and volume*): \_\_\_\_\_
13. In the case of body fluid exposure, was the skin of the exposed person intact? (*if not body fluid exposure skip this question*)  
 YES  NO (*explain*) \_\_\_\_\_
14. Specify Sharp Item (*if not sharp item, skip to Question 17*):
- |  |   |
|--|---|
| <input type="checkbox"/> Needle, specify gauge _____   | <input type="checkbox"/> Blade  |
| <input type="checkbox"/> Branula, specify gauge _____  | <input type="checkbox"/> Glass, specify ( <i>broken test tube, etc.</i> ) _____ |
| <input type="checkbox"/> Other Needle ( <i>suture needle, etc.</i> ) specify type & size _____ | <input type="checkbox"/> Other ( <i>specify</i> ) _____                         |
15. Was the injury:  Superficial (little or no bleeding)  Moderate (skin punctured, some bleeding)  
 Severe (*deep stick/cut, or profuse bleeding*)
16. If the injury was to the hands, did the sharp item penetrate: (*check one*)  
 Single pair gloves  No gloves  Other (*specify*) \_\_\_\_\_



**17. Did the injury/exposure occur:**

- Restraining Patient
- Disassembling device or equipment
- In preparation for reuse of reusable instrument (*sorting, disinfecting, sterilizing, etc.*)
- While recapping used needle
- Withdrawing a needle from rubber or other resistant material (*rubber stopper, I.V. port, etc.*)
- Device left on floor, table, bed or other inappropriate place
- Other after use, before disposal (*in transit to trash, cleaning, sorting, etc.*)
- From item left near or on disposal container
- While putting the item in a disposal container
- After disposal, stuck by item protruding from opening of disposal container
- Item placed on side of disposal container
- After disposal, item protruded from trash bag or inappropriate waste container
- Other, describe \_\_\_\_\_

**18. Describe the circumstances leading to this injury:** (*please note if a device malfunction was involved*)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**19. State the location of the exposure/injury:** \_\_\_\_\_

**20. Hepatitis B immunisation?**  None  YES Dates: \_\_\_\_\_

**21. Immunisation Card seen?**  YES  NO

**22. Has the injured person had any previous needle stick injuries?**  YES  NO

**23. If yes, were the previous incidents reported?**  NO  YES Date(s): \_\_\_\_\_

**24. Risk Category:**  Low  Moderate  High

**25. Was area bled/flushed/washed?**  YES  NO

**26. Was disinfectant used?\***  YES  NO

**\*\*NOTE:** The use of bleach, alcohol, Savlon or other disinfectants is not recommended.

**27. Action taken by head of department:**

a. Counselling?  YES  NO

b. Blood taken for HIV testing?  YES  NO (*if "NO", explain*) \_\_\_\_\_

c. Blood taken for Hepatitis B Antigen?  YES  NO (*if "NO", explain*) \_\_\_\_\_

d. PEP Medication Given? (*see last page of this form for PEP Guidelines*)

YES TYPE \_\_\_\_\_ Date/Time Started \_\_\_\_\_

NO (*if "NO", explain*) \_\_\_\_\_

Low Risk  Not Available  Exposed Person Refusal\*  Other (*specify*) \_\_\_\_\_



\*In the case of refusal the exposed person must sign the attached waiver form

To be sent to Medical Officer of Health for surveillance

**Form completed by:**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Signature: \_\_\_\_\_

**Post Exposure Prophylaxis (PEP) Dosages:**

All of the following are to be given within 1-2 hours or at most 24-36 hours after exposure\* and continued for **four weeks**:

Either:

a. Zidovudine (AZT) 300 mg bid or 200 mg po tid after meals AND Lamivudine (3TC) 150 mg po bid after meals

**OR**

b. Combivir (AZT + 3TC) 1 tablet po bid with or without food

Indinavir should be used in addition to either a. or b. when there is a very high risk to the exposed person. 800 mg po q8h on an empty stomach. Drink at least 48 oz of fluid/24 hours.

\*Studies in animals (no human studies done) suggest that treatment is not effective when started more than 24-36 hours after exposure. Commencement of treatment later is recommended if considered highest risk.



**PEP Refusal form:**

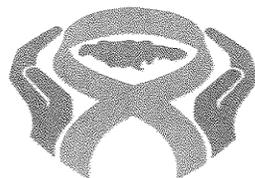
I, \_\_\_\_\_, hereby waive my right to take the PE Prophylaxis to prevent possible infection of the HIV virus. I understand that by refusing to take the medication I am putting myself at greater risk for infection.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Witness signature: \_\_\_\_\_

Witness (print name neatly): \_\_\_\_\_



**National HIV/STD  
Control Programme**

STANDARD PRECAUTIONS - APPENDIX: ii



## APPENDIX 5

### Blood Spill Procedure: Steps to Clean Up Blood on a Hard Surface

#### 1) Personal Protective Equipment

- Don a pair of Industrial gloves, Face shield and protective gown.

#### 2) Remove Sharps

- Use a brush and dustpan or tongs/forceps to remove broken glass or other pointed shards
- Place each piece into a leak-proof sharps container.
- Under no circumstances should you ever remove these objects by hand.

#### 3) Cover and Soak the Spill

- Cover the spill in durable cloth towels to soak up as much blood as possible.
- Use full strength (5%) commercial bleach to soak and disinfect the surface of the cloth.
- Discard the used towels into a clearly marked biohazard bag.

#### 4) Disinfectant

- Ensure proper ventilation if the spill isn't in an open room.
- Cover the area of the spill
- Use full strength (5%) commercial bleach to soak and disinfect the surface
- Allow to stand for 5-10 minutes
- Once this time has elapsed, you should work from the outside toward the center while scrubbing the area with durable cloth towels.
- Place all used towels in the biohazard bag.



#### **5) Dispose**

- Carefully dispose of all personal protective equipment into a biohazard bag: gloves, gown, and glasses.
- Be sure that other surfaces are not contaminated during this process.
- Dispose of all medical waste in accordance with local guidelines

#### **6) Decontaminate**

- Use a 1:10 bleach solution to soak any reusable equipment, such as dustpans, buckets, and tongs for 5 minutes.

#### **7) Check**

- Perform a final check of your body for any contamination

#### **8) Perform Hand hygiene**

#### **9) Report the incident**

## APPENDIX 6

**Table 2. Specimen collection and storage (adapted from<sup>4, 27, 28</sup>)**

Specimen type	Collection materials	Storage temperature until testing in-country laboratory	Recommended temperature for shipment according to expected shipment time
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocked swabs*	2-8 °C	2-8 °C if ≤5 days -70 °C (dry ice) if >5 days
Bronchoalveolar lavage	Sterile container *	2-8 °C	2-8 °C if ≤2 days -70 °C (dry ice) if >2 days
(Endo)tracheal aspirate, nasopharyngeal or nasal wash/aspirate	Sterile container *	2-8 °C	2-8 °C if ≤2 days -70 °C (dry ice) if >2 days
Sputum	Sterile container	2-8 °C	2-8 °C if ≤2 days -70 °C (dry ice) if >2 days
Tissue from biopsy or autopsy including from lung.	Sterile container with saline or VTM.	2-8 °C	2-8 °C if ≤24 hours -70 °C (dry ice) if >24 hours
Serum	Serum separator tubes (adults: collect 3-5 ml whole blood).	2-8 °C	2-8 °C if ≤5 days -70 °C (dry ice) if >5 days
Whole blood	Collection tube	2-8 °C	2-8 °C if ≤5 days -70 °C (dry ice) if >5 days
Stool	Stool container	2-8 °C	2-8 °C if ≤5 days -70 °C (dry ice) if >5 days
Urine	Urine collection container	2-8 °C	2-8 °C if ≤5 days -70 °C (dry ice) if >5 days

\* For transport of samples for viral detection, use viral transport medium (VTM) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens. If VTM is not available sterile saline may be used instead (in which case, duration of sample storage at 2-8 °C may be different from what is indicated above).

Aside from specific collection materials indicated in the table also assure other materials and equipment are available: e.g. transport containers and specimen collection bags and packaging, coolers, and cold packs or dry ice, sterile blood-drawing equipment (e.g. needles, syringes and tubes), labels and permanent markers, PPE, materials for decontamination of surfaces, etc.



## APPENDIX 7

### Influenza Specimen Collection Guidelines

#### Nasopharyngeal Swab

##### Items Required

- Sterile Dacron/nylon swab
- Viral transport media tube (*should contain 1-3 ML of sterile viral transport medium*)

1. Tilt patient's head back 70 degrees.
2. Insert swab into nostril. (Swab should reach depth equal to distance from nostrils to outer opening of the ear.) Leave swab in place for several seconds to absorb secretions.
3. Slowly remove swab while rotating it. (Swab both nostrils with same swab.)
4. Place tip of swab into sterile viral transport media tube and snap/cut off the applicator stick.

#### Combined Nasal & Throat Swab

##### Items Required

- 2 dry sterile polyester swabs (*aluminum or plastic shafts preferred*)
- Viral transport media tube (*should contain 1-3 ML of sterile viral transport medium*)

1. **Tilt patient's head back 70 degrees.**
2. **While gently rotating the swab, insert swab less than one inch into nostril (until resistance is met at turbinates).**
3. **Rotate the swab several times against nasal wall and repeat in other nostril using the same swab.**
4. **Place tip of the swab into sterile viral transport media tube and cut off the applicator stick.**
5. **For throat swab, take a second dry polyester swab, insert into mouth, and swab the posterior pharynx and tonsillar areas (Avoid the tongue)**
6. **Place tip of swab into the same tube and cut off the applicator tip.**



### **Packing:**

- Label the specimen on viral transport media tube and ensure cap on tube is tightly sealed (Do not use a pencil or pen for labeling, as they can rub off or smear. Instead, use a bar code or permanent marker).
- Fill out paperwork in accordance with health department guidelines.
- Include a frozen cold pack with the specimen(s).

### **Storing:**

- Specimens should be placed into sterile viral transport media and immediately placed on refrigerant gel packs or at 4 degrees Celsius (refrigerator) for transport to the state public health laboratory.
- Keep specimens refrigerated (2-8 degrees Celsius, 26-46 degrees Fahrenheit) prior to shipping.

### **Shipping:**

- Ship specimens for testing as soon as possible.
- If delivery will be delayed for more than 3-4 days, specimen should be frozen at -70 degrees Celsius (-94 degrees Fahrenheit).
- Ensure specimen will be received by the public health laboratory during normal business hours.

### **Considerations:**

A nasopharyngeal (NP) swab is the optimal upper respiratory tract specimen collection method for influenza testing. However, such specimens cannot be collected from infants and many older patients may not allow an NP specimen to be collected. Alternatively, a combined nasal and throat swab specimen or aspirate specimens can provide good influenza virus yield.

Some influenza tests are approved only for use with certain kinds of respiratory tract specimens, so follow guidelines provided by test. Also, some tests (e.g., rapid influenza diagnostic tests) are only approved for certain kinds of respiratory tract specimens. For best results (i.e., highest influenza virus yield), collect respiratory tract specimens within four days of illness onset.

Most sensitive and accurate tests for influenza virus detection are molecular or nucleic acid amplification tests (RT-PCR). Negative test results obtained from rapid influenza diagnostic tests (RIDTs) **that detect influenza viral antigens** do not exclude influenza virus infection in patients with signs and symptoms of influenza. A negative test result could be a false negative and should not preclude further diagnostic testing (such as RT-PCR) and starting empiric antiviral treatment.



A surgical mask and gloves are recommended at a minimum for all procedures. For some patients and procedures, additional precautions may be indicated, see Standard Precautions at [www.cdc.gov/hicpac/2007IP/2007ip\\_part4.html#a4](http://www.cdc.gov/hicpac/2007IP/2007ip_part4.html#a4).

**Materials**

CS246972



**APPENDIX 8**

**STAFF MEDICAL LOG SHEET**

<b>STAFF NAME</b>			<b>MONTH/YEAR</b>	
<b>DATE</b>	<b>TEMPERATURE</b>	<b>SYMPTOMS</b>		<b>SIGNATURE</b>