

# Field Epidemiology & Disease Surveillance Division

## (Standard Operating Procedure-SOP)



### Document Information

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### Document Revision History

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# **SOP: Waste Management of 2019 nCoV at Airports**

## **1. Purpose:**

1.1. To provide a guideline for management of waste of (2019-nCoV) at the airports

## **2. Scope:**

2.1 This procedure applies to all airports which are dealing with generation of waste against potential nCoV

## **3 Responsibilities:**

3.1. The designated managers at airport are responsible for the compliance of whole process

3.2. Arrangement of incineration and maintenance of log book for incinerated waste is the responsibility of designated Incinerator operator

## **4. Procedure:**

### **4.1 Material and Equipment:**

4.1.1 Waste required to be disposed off

4.1.2 Color (red) colored containers for infectious waste collection

4.1.4 Waste Disposal bags (Red colored)

4.1.6 Sharp disposal box

4.1.7 Personal protective equipment like gloves, Shoe covers, face masks, face shields, long closed-toe foot wear for sanitary workers etc

4.1.8 Spill Kit

4.1.9 First Aid Box

4.1.10 Covered waste transportation trolleys

4.1.11 Incinerator

### **4.2 Standard & Transmission-Based Precautions**

**4.2.1** Employers involved in dealing with suspected traveler, cleaning of airport and waste management practices should follow good infection control practices (including standard precautions) to prevent or minimize transmission of infectious agents (i.e., nCoV). Everything that comes in contact with suspected traveler should be dealt as infectious waste

#### **4.2.2 Standard precautions include**

- Hand hygiene
- Use of personal protective equipment (e.g., gloves, masks, eyewear)
- Respiratory hygiene/cough etiquette
- Sharps safety (engineering and work practice controls)
- Safe injection practices (i.e., aseptic technique for parenteral medications)
- Sterile instruments and devices
- Clean and disinfected environmental surfaces

4.3.3 Perform hand hygiene before and after any contact with suspected or confirmed nCoV, after any contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves

### **4.4 Handling and disposal procedures for contaminated materials and wastes**

**4.2.1 Contaminated (infectious) “sharps”** – collect hypodermic needles, scalpels and broken glass; always in puncture-proof containers fitted with covers and treat as infectious

- Do not fill the sharps container to capacity. When they are three-quarters full, place them in “infectious waste” containers and send for incineration
- Do not discard sharps disposal containers in landfills

#### **4.2.2 Contaminated material for direct incineration:**

- Place the contaminated waste in designated containers (e.g. Red colored bag) and transport directly to the incinerator in covered trolleys
- Reusable transfer containers should be leakproof and have tight-fitting covers

- Disinfect and clean the transfer container before returning them to the laboratory for further use
- Contaminated waste includes anything that comes in contact with suspected traveler

#### 4.2.5 Concentration of Disinfectants:

##### 4.2.5.1 Sodium hypochlorite solutions (bleach)

- Sodium hypochlorite solutions, as domestic bleach, contain 50 g/l available chlorine and should therefore be diluted 1:50 or 1:10 to obtain final concentrations of 1 g/l and 5 g/l, respectively.
- A **bleach** and water **solution** should be mixed daily to preserve its strength.
- **High level disinfection (approximately 5000 ppm) for use on semi-critical medical and personal service instruments**  
Preparing a 1: 10 Household Bleach Solution: • 62 ml (1/4 cup) household bleach + 562 ml (2 1/4 cups) water **OR** • 250 ml (1 cup) household bleach + 2250 ml (9 cups) water
- **Intermediate - High level disinfection (approximately 1000 ppm) for use in washrooms, change tables in childcare, during outbreaks of respiratory diseases or vomiting and diarrhea**  
Preparing a 1: 50 Household Bleach Solution: • 20 ml (4 teaspoons) household bleach + 1000 ml (4 cups) water **OR** • 100ml (7 tablespoons) household bleach + 5000 ml (20 cups) water
- **Intermediate level disinfection (approximately 500 ppm) for use on non-critical medical or personal service instruments**  
Preparing a 1: 100 Household Bleach Solution: • 5 ml (1 teaspoon) household bleach + 500 ml (2 cups) water • 62 ml (1/4 cup ) household bleach + 6138 ml ( 24 3/4 cups) water

##### 4.2.5.2 Ethanol/Isopropyl Alcohol:

- Ethanol (ethyl alcohol, C<sub>2</sub> H<sub>5</sub> OH) and 2-propanol (isopropyl alcohol, (CH<sub>3</sub>)<sub>2</sub> CHOH) have similar disinfectant properties. They are active against lipid-containing viruses but not against spores. For highest effectiveness they should be used at concentrations of approximately 70% (v/v) in water.

#### 4.4 4.4 Mopping:

- 4.4.1 1 cup of bleach to every 5 gallons of water, or 1/2 cup to every 2-1/2 gallons of water. Pour the bleach into a large bucket and add the desired amount of water afterward. Apply the bleach and water mixture to the floor with a cloth or mop.

#### 4.5 Decontamination of goggles & face shields:

- 4.5.1 Spray with 70% ethanol or isopropyl alcohol and leave for 5-15 minutes
- 4.5.2 when in contact with suspected patient dip in 0.5% bleach for 5 minutes

#### 4.6 Spill clean-up procedure:

- 4.6.1 In the event of a spill of infectious material, use following spill clean-up procedure.
- Wear gloves and protective clothing, including overall, shoe covers, face and eye protection.
  - Cover the spill with cloth or paper towels to contain it.
  - Pour an appropriate disinfectant over the paper towels and the immediately surrounding area (generally, 5% bleach solutions are appropriate; but for spills on aircraft, quaternary ammonium disinfectants should be used).
  - Apply disinfectant concentrically beginning at the outer margin of the spill area, working toward the centre.

- After the appropriate amount of time (e.g. 30 min), clear away the materials.
- If there is broken glass or other sharps involved, use a dustpan or a piece of stiff cardboard to collect the material and deposit it into a puncture-resistant container and send for incineration.
- Clean and disinfect the area of the spillage (can repeat the above mentioned procedure)
- After cleaning up document it with complete history and inform authorities regarding the decontamination of the area.

**5. Reference:**

- 5.1. WHO laboratory biosafety manual 3<sup>rd</sup> Edition. 2004.
- 5.2. Appendix A for the Guideline for Isolation **Precautions:** Preventing Transmission of Infectious Agents in Healthcare Settings (2007)
- 5.3. Waste Management at Airports ECO AIRPORT TOOLKIT - ICAO
- 5.4 WHO Guide to hygiene and sanitation in aviation. Module 2 Cleaning and disinfection of facilities.2009

## **Bleach Solution Concentrations**

### **For Surfaces (Semi-critical):**

62 ml (1/4 cup) household bleach + 562 ml (2 1/4 cups) water

### **For Surfaces (non-critical):**

05 ml (1 teaspoon) household bleach + 500 ml (2 cups) water

### **For Mopping Floors:**

1 cup (250 ml) of bleach to every 5 gallons of water

### **For Washrooms & Spills (Vomiting, Diarrhea etc)**

20 ml (4 teaspoons) household bleach + 1000 ml (4 cups) water

### **For decontamination of goggles or face shields**

1 ml (1/4 teaspoon) household bleach to 500ml (2 cups) water