

## INSTRUCTIONS FOR USE OF WHO COUNTRY OFFICE SARS OUTBREAK STOCK.

The WHO Country Office SARS Outbreak Stock is designed to provide essential personnel protective equipment (PPE) for barrier nursing and collection of clinical specimens from suspected SARS cases. It is based on estimated needs for maximum 50 health workers per day for 3-4 days, and high-level protection for 6-8 procedural / laboratory workers for a similar period. This will be adequate for a small SARS outbreak or isolation of suspected SARS patients until larger stocks can be accessed.

The stock is intended as an interim measure only to assist preparedness for a SARS outbreak. Countries **should** compile larger stocks of equipment as soon as possible, **or** ensure rapid access to larger stocks.

### Storage / positioning of the stock.

- The stock should be stored where it can be readily accessed at all times for despatch to a facility / transport where suspected SARS patients are involved, including after-hours.
- The WR, CLO or recipient of the kit should decide this in consultation with the national health authorities.

### USE OF THE EQUIPMENT.

#### In all cases, certain principals apply:

- PPE reduces but does not completely eliminate the possibility of infection.
- Exposure to the infected patient should be kept to an absolute minimum necessary for the level of care required.
- Visits by non-staff should be avoided where possible.
- PPE is only effective if used correctly and at all times where contact is possible.
- Any contact between contaminated (used) PPE and surfaces / clothing / people outside the isolation area must be avoided.
- Used PPE must be sealed in appropriate disposal bags and incinerated or decontaminated.
- The use of PPE does not reduce the importance of basic hygiene measures such as hand-washing.

#### Masks (2 types are provided):

- N95 masks are recommended for general use in the isolation room where close contact with the patient and direct contamination with saliva / sputum (cough, sneezing etc) is not likely. Ideally, masks should be splash-proof (e.g. 3M 1860 model) if available. Change mask after 4-6 hours.
- The patient wear an N95 mask at all times when staff / other people are in room.
- HEPA (P100, N100) masks are recommended for use during procedures (e.g. intubation, collection of respiratory or blood specimens) and for laboratory use, where splash of respiratory secretions is likely.
- Disposable masks should be discarded after 4-6 hours use. They should not be stored in bags and re-used, shared, or hung around neck etc. (patient's mask may be reused by patient).
- It is **essential** that the mask makes a complete seal on the face (see attached fitting instructions) at all times. Care should be taken to ensure seal is complete before approaching patient.
- Masks can not be worn with beards / unshaven faces.
- If a mask is splashed, wet, it should be changed using strict hand-washing and gloves.

#### Goggles / eye-wear.

- Goggles should be worn at all times during patient contact.
- They should be cleaned thoroughly in alcohol-based disinfectant solution prior to re-use.
- UVEX goggles may be worn with glasses.
- Safety glasses have been included in the stock, they are not a good substitute for goggles and should only be used if extreme heat and humidity prevents goggles from being tolerated.

### GENERAL NOTES ON USE OF PPE EQUIPMENT

(see accompanying notes on patient isolation).

#### Decide where the patient(s) is to be isolated.

The isolation facility should be arranged as follows:

- Isolation room. Patient care room, with no air flow to other rooms.
- Changing room. Separate areas in room for storage of outside clothes, and removal of PPEs.
- General access area (i.e. rest of hospital).

Further details on choosing and setting up isolation rooms are under preparation, but it is important that appropriate sites be designated **now**.

### **Specify who should wear PPEs**

- All doctors, nurses and health care workers who provide direct patient care to SARS cases (keep to minimum necessary for patients' condition)
- All support staff including medical aides, cleaners, laundry staff (keep to minimum necessary for patients' condition, designated SARS laundry staff etc.)
- All laboratory staff who handle patient specimens from suspect cases (keep to minimum necessary for laboratory procedures)
- Family members who care for SARS patients (minimum visiting, avoid close contact)

### **Putting on the PPEs before entering isolation area.**

- Wear scrub suit or old set of thin clothes before entering the designated changing room or area
- Put on the shoe covers or boots with trousers tucked inside
- Put on the outer laboratory gown or coveralls
- Put on the impermeable apron
- Put on gloves with gown sleeve cuff **tucked into glove**.
- Put on the mask and goggles.
- (Boots are provided for heavily contaminated / wet flooring and floor cleaning. They should be cleaned as the goggles are).

### **Taking off the PPEs and leaving area.**

- Wash gloved hands in >60% alcohol handwash solution (Sterillium). (Disinfect boots with 1% bleach)
- Using gloved hands, remove aprons, gowns, and shoe covers without contaminating clothing underneath. Place in biohazard disposal bag.
- Remove gloves.
- Wash hands in >60% alcohol solution.
- Remove goggles and place in receptacle for cleaning with alcohol (note: personnel cleaning goggles should use same PPE procedure).
- Remove head cover and mask, place in biohazard disposal bag.
- Wash hands to elbows thoroughly in >60% alcohol hand cleansing solution, followed by soapy water.
- Change into street clothing and wash hands in soapy water before leaving facility.

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More details on isolation procedures and care of isolated patients can be found in:

- WHO: Hospital Infection Control Guidance. Care for patients with SARS.
- CDC: Severe Acute Respiratory Syndrome (SARS). Updated Interim Domestic Infection Control Guidance in the Health Care and Community Setting for Patients with Suspected SARS.
- WHO-CDC: Infection Control for Viral Haemorrhagic Fevers in the African Health Care Setting. (Refer chapters 3-7 & 9).

These have been sent on 20 Mar 03.

**Collection of pathology specimens and use of drugs, and general notes on isolation and use of PPE, will be detailed in a later bulletin. Doxycyclin is provided as a useful drug in some instances of atypical pneumonia, but is not a specific treatment for SARS.**

### **Countries to receive WHO country Office SARS Outbreak Stock:**

Cambodia, Fiji (2), Guam, Kiribati, Laos, Mongolia, Myanmar, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Vanuatu (modified kit to Macao, Brunei).

## WPRO SARS Preparedness Kit contents list.

The list below is designed to provide essential equipment for barrier nursing and pathology collection for suspected SARS cases. It is based on estimated needs for maximum 50 health workers per day for 3-4 days, and high-level protection for 6-8 procedural / laboratory workers for a similar period.

<b>INFECTION CONTROL EQUIPMENT</b>		
Coveralls	30	10 large, 10 medium, 10 small (includes hood) polypropylene
Disposable Aprons (yellow)	200	
Shoe covers	200 pair	Polypropylene
Hair cover (bouffant)	200	
Safety glasses	30	<i>Not adequate eye protection: see notes above.</i>
Non-fog goggles	50	<b>2-lens</b>
UVEX goggles	10	<b>Can be worn with glasses/spectacles</b>
HEPA (P100, N100) Mask	30	Disposable
Reusable HEPA half-face mask (P100, N100)	10	<i>Not yet in all kits</i>
HEPA mask replaceable filter	40 pair	<i>Not yet in all kits</i>
N95 particulate mask	200	
Disposable gloves	500 pair	100 large, 200 medium, 200 small
Surgical gloves	150	
Anti-microbial waterless hand-wash	10 bottles	> 60% alcohol, with emollient ('Sterillium 1000ml) dispenser
Anti-microbial waterless hand-wash refills	10 bottles	(Sterillium 1000 ml)
Absorbent laboratory mat	2 rolls	3 x 50ft
Aprons: impermeable	200	
Rubber boots	10 pairs	2 L, 4 M, 4 S
Biohazard disposal bags	100	autoclavable
<b>LABORATORY EQUIPMENT</b>		
Sterile cotton swab sticks	1 box	(1000)
Vacutainer 5 ml EDTA	1 box	(50)
Vacutainer 5ml plain	1 box	(100)
Vacutainer needles	200	
Vacutainer adapters	200	
Syringe 5ml	100	
Butterfly needles	50	
Sterile screw-top plastic specimen containers	25 ml	100
<b>SPECIMEN SHIPPING</b>		
Bio-bottles 0.5L shipping containers	2	
Cryogenic vials 5ml	100	
Cooler, large capacity	1	For transport of field specimens
Ice packs	12	
Ziplock bags	200	
<b>DRUGS</b>		
Doxycyclin	100mg	300 tabs