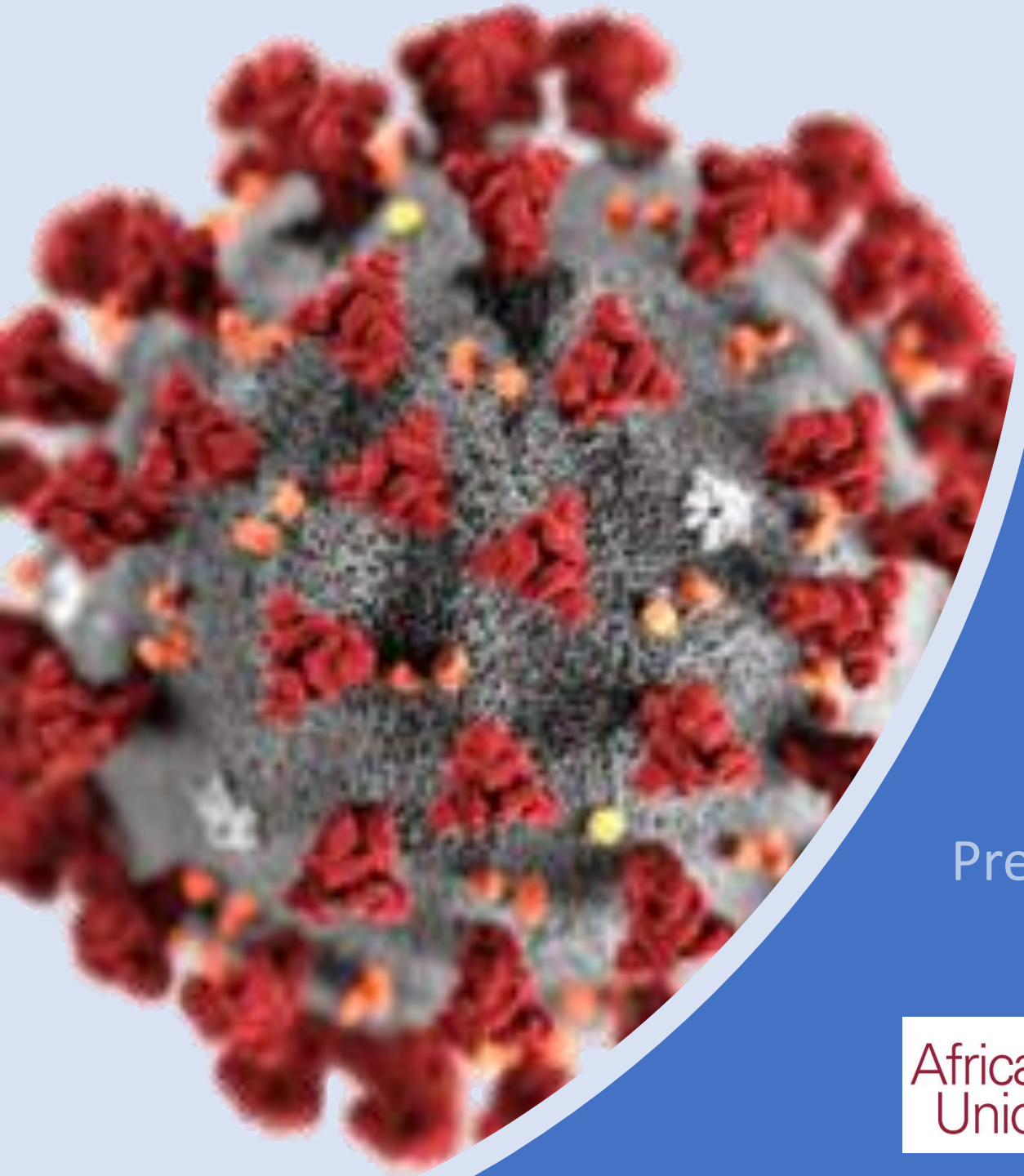


Triage and Patient Flow

Preventing and controlling transmission of COVID 19 infection

African Union

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

NCDC
NIGERIA CENTRE FOR DISEASE CONTROL

Objectives

- To list the IPC strategies required to limit transmission
- To describe the minimum requirements required to achieve effective Infection Control
- Describe the hierarchy of controls and their application for COVID-19
- To provide an overview of screening method and tools
- To show need for triage stations at different levels of healthcare / Ports of Entry

IPC strategies to limit transmission in healthcare settings

- **Ensure triage, early recognition, and source control (isolating patients with suspected COVID-19 infection**
- **First step of identifying suspects**
- **Use updated case definitions when screening**
- Apply standard precautions for all patients;
- Implement empiric additional precautions (droplet and contact precautions) for suspected cases of COVID-19 infection;
- Implement administrative controls;
- Use environmental and engineering controls.

Hierarchy of Controls

Infection Control Africa Network ICAN

World Health Organization

Administrative controls

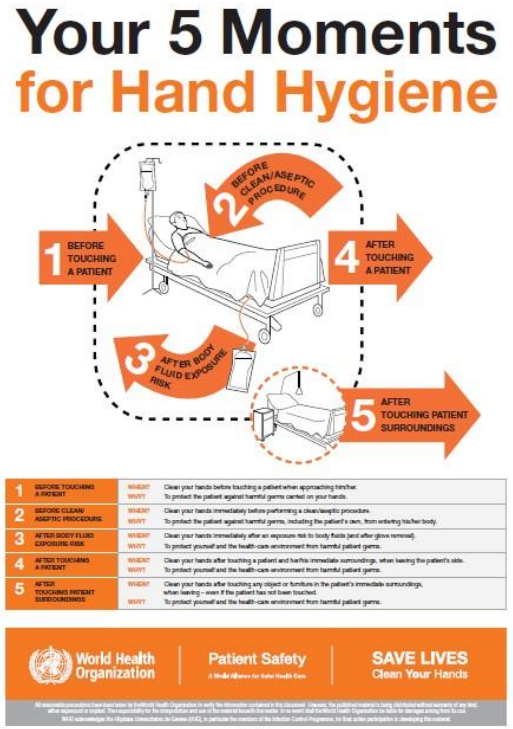
- Provide adequate training for HCWs
- Monitor HCW compliance with standard precautions and provide mechanisms for improvement as needed.
- Establish a surveillance process for acute respiratory infections potentially caused by COVID-19 among HCWs;
- Ensure that HCWs and the public understand the importance of promptly seeking medical care
- Ensure adequate patient-to-staff ratio

Engineering/environmental controls

- Address the basic infrastructure of the health care facility.
- Adequate ventilation in all areas in the healthcare facility,
- Spatial separation of at least 1 meter should be maintained between all patients.
- Adequate WASH infrastructure and environmental cleaning.
- Safe medical waste management

Appropriate Use of PPE

- Risk assessment based on potential exposure and risk
- Wear PPE properly
- Remove safely
- Dispose of safely
- Hand hygiene: “five moments”



To facilitate the early identification of cases of suspected COVID-19 infection

- Establish a well-equipped triage station at the entrance/entry point supported by trained staff
- Encourage HCWs to have a high level of clinical suspicion
- Institute the use of screening questionnaires according to the updated case definition
- Post signs in public areas reminding symptomatic patients to alert HCWs and/or relevant authorities

What is Triage?

- The process of rapidly examining sick individuals when they first arrive in order to place them in defined categories
- Those with **PRIORITY SIGNS** who should be given priority in the queue so they can be rapidly assessed and treated/moved/isolated without delay.
- Those with **EMERGENCY SIGNS** who require immediate urgent treatment.
- Those who have no emergency or priority signs and are NON-URGENT cases. These can wait their turn in the queue for assessment and treatment. The majority of people will be non-priority and will not require emergency treatment.

Signs and Symptoms

MOST COMMON

Fever

Cough

SOMEWHAT COMMON

Sore throat

Fatigue/aches and pains

Shortness of breath

Headache

RARE

Runny or stuffy nose

Diarrhea

Person Under Investigation:

- Apply the latest case definition from your country e.g the NICD : http://www.nicd.ac.za/diseases-a-z-index/covid-19/

Persons with **acute respiratory illness** with **sudden onset** of at least **one** of the following:

- **Cough**
- **Sore throat**
- **Shortness of breath,**
- **Fever** [≥ 38°C or subjective history of fever]

Who needs to be tested?

Example of a screening tool:

PUI	**In the past 14 days, have you experienced any of the following symptoms?**	
	Fever and chills	
	Cough	
	Shortness of breath or difficult breathing	
	Sore throat	

HIGH RISK	**In the past 14 days, have you:**	
	Travelled outside of South Africa to a country with lots of coronavirus, or worked somewhere with a lot of international travellers	
	Travelled within South Africa to an area with local transmissions: Gauteng, Western Cape, KwaZulu Natal, Free State	
	Had a close contact with someone who is suspected to have COVID-19 or has been diagnosed positive for COVID-19	
	Attended/worked at a healthcare facility that has treated patients with COVID-19	

Routes of Transmission

This is crucial information for applying the correct IPC procedures and ensuring safety of you and your patients.

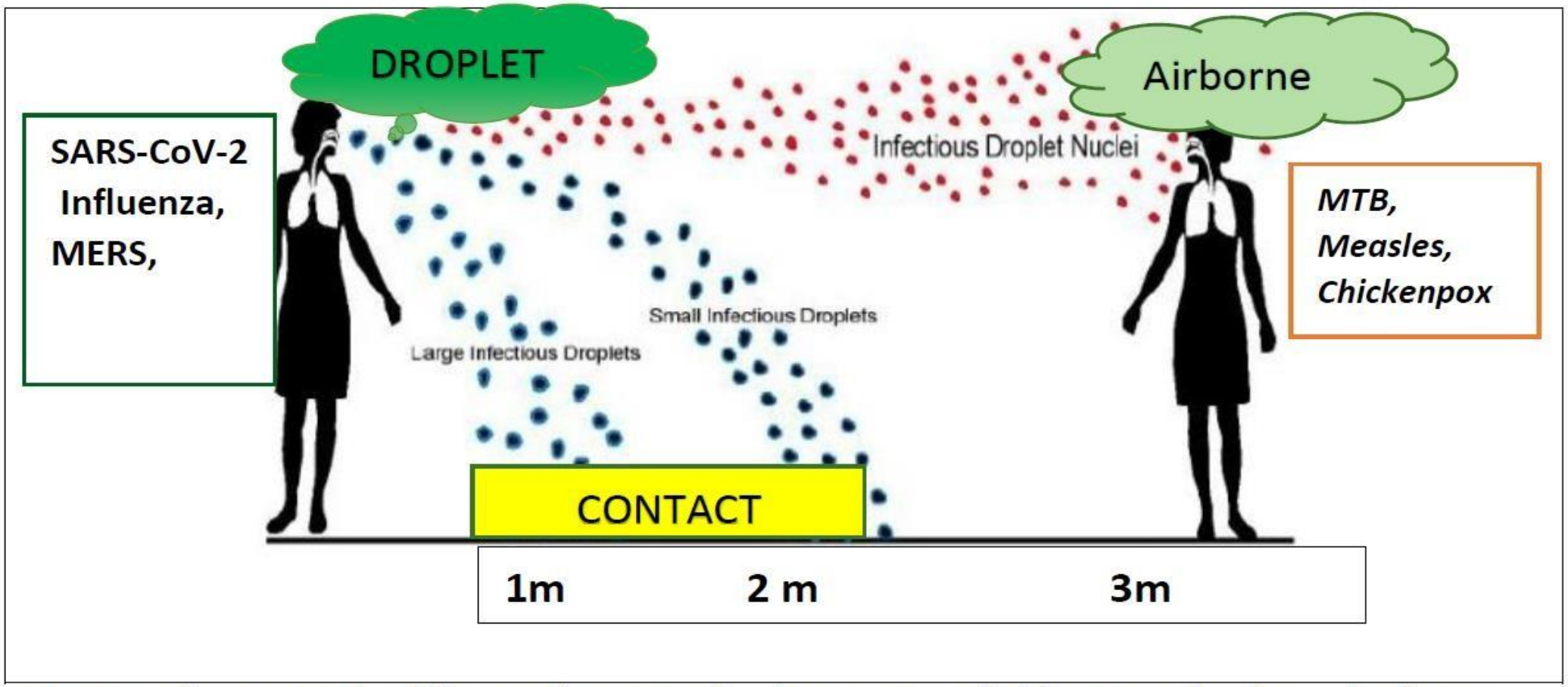
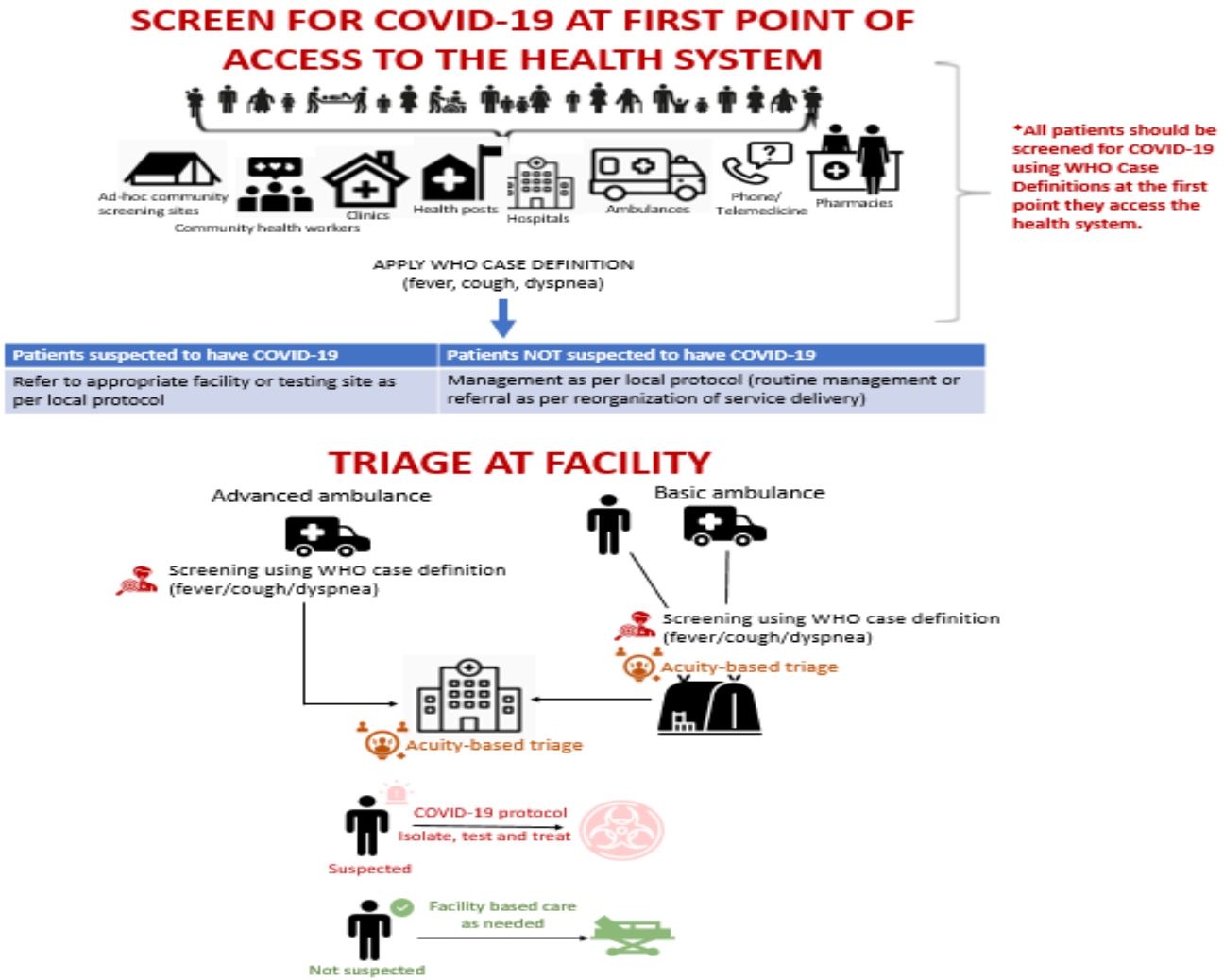


Figure 1: Illustrating the difference between the distance travelled between droplet and airborne after aerosol generation through coughing or sneezing

Example of a Algorithm or flow chart for Covid 19



Suspect cases of COVID 19 must be safely

1. **Screened** for disease
2. **Isolated** from other patients
3. Right authorities **Notified**

Who should be a screener?

- Ideally, a nurse would be the primary screener
- If not available, a nurse aide should be the screener
- Security guards should NOT be the screener
- A clinician should always be available to provide support to the screener when complicated cases arrive

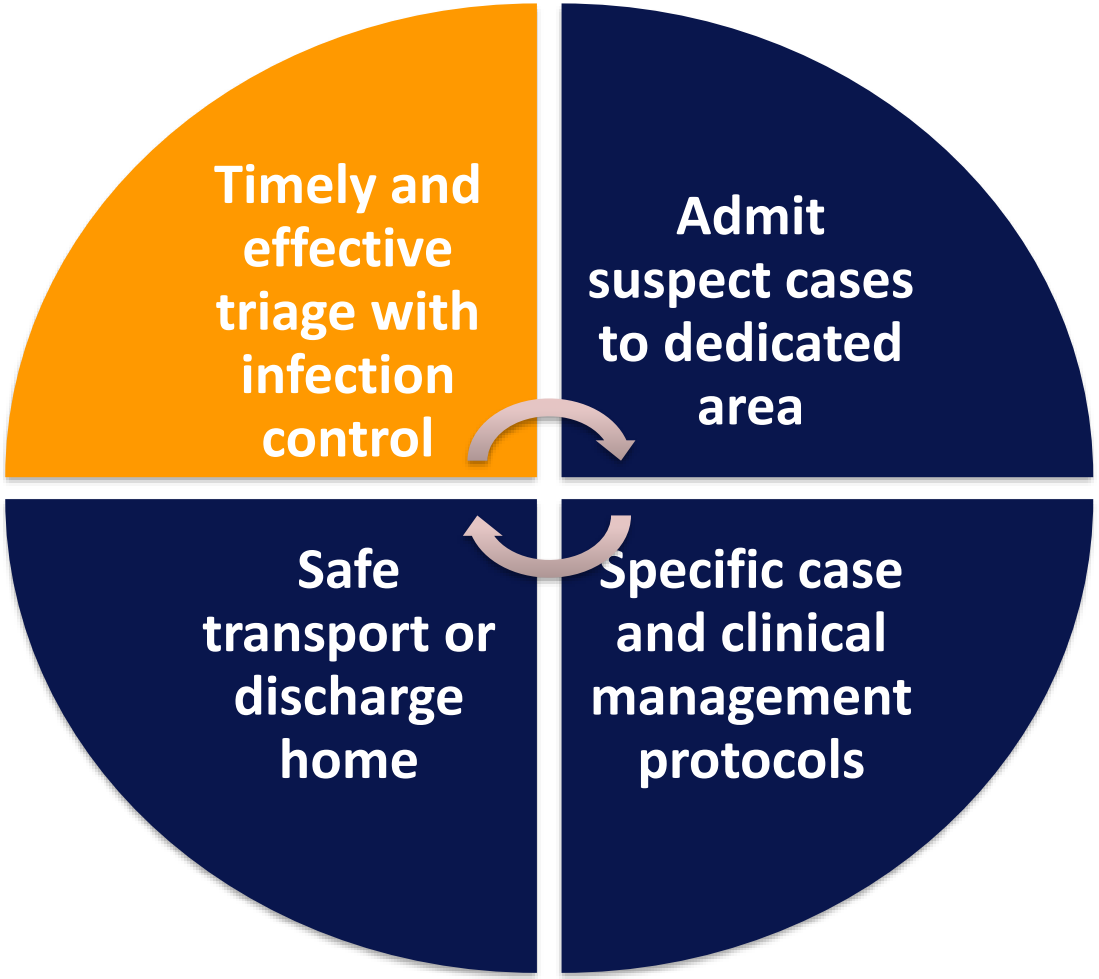
Screening Area

- Screening should take place at the entrance to the health facility
- Screening should be done at all times, during all shifts, for all persons entering the facility
- The screening area should always be stocked with:
  - Thermometer
  - PPE
  - Hand hygiene facilities

Using Your Judgement

- If a patient presents with suspicious symptoms but does not meet criteria for isolation, what do you do?
    - It is always appropriate to isolate a patient, notify a clinician, and obtain further information to ensure the patient can be safely treated in the health facility
- If a visitor, caretaker or staff member who appears ill, they should also be screened before entering the facility

Management of ill patients/passengers



Use clinical triage for early identification of patients with acute respiratory infection (ARI)

Ask patients with respiratory symptoms to

- perform hand hygiene
- perform respiratory hygiene.
- wear a mask (offer them one)
- Ensure at least 1 m distance from them and other patients

Screening Process

- The **process** of screening effectively is more important than the *place* of where screening occurs

What are the IPC issues you will address when setting up a triage area?

Triage Requirements

The triage or screening area requires the following:

- Well defined area **with ventilation**
- Appropriate distance >1meter
- PPE (for staff and cases)
- Hand hygiene equipment
- Infrared thermometer
- Algorithm for triage
- Screening questionnaire
- Waste bins and access to cleaning/disinfection
- Protocols/Flow charts
- Clear signage
- Information posters/IEC
- Documentation forms/books
- Important contacts

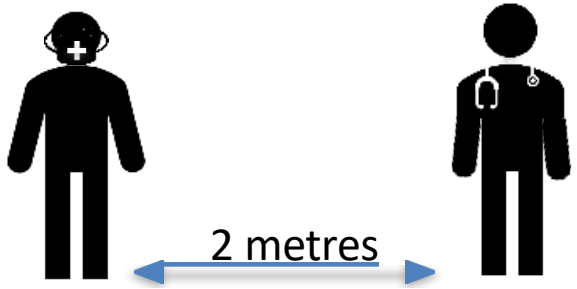
PPE Choice

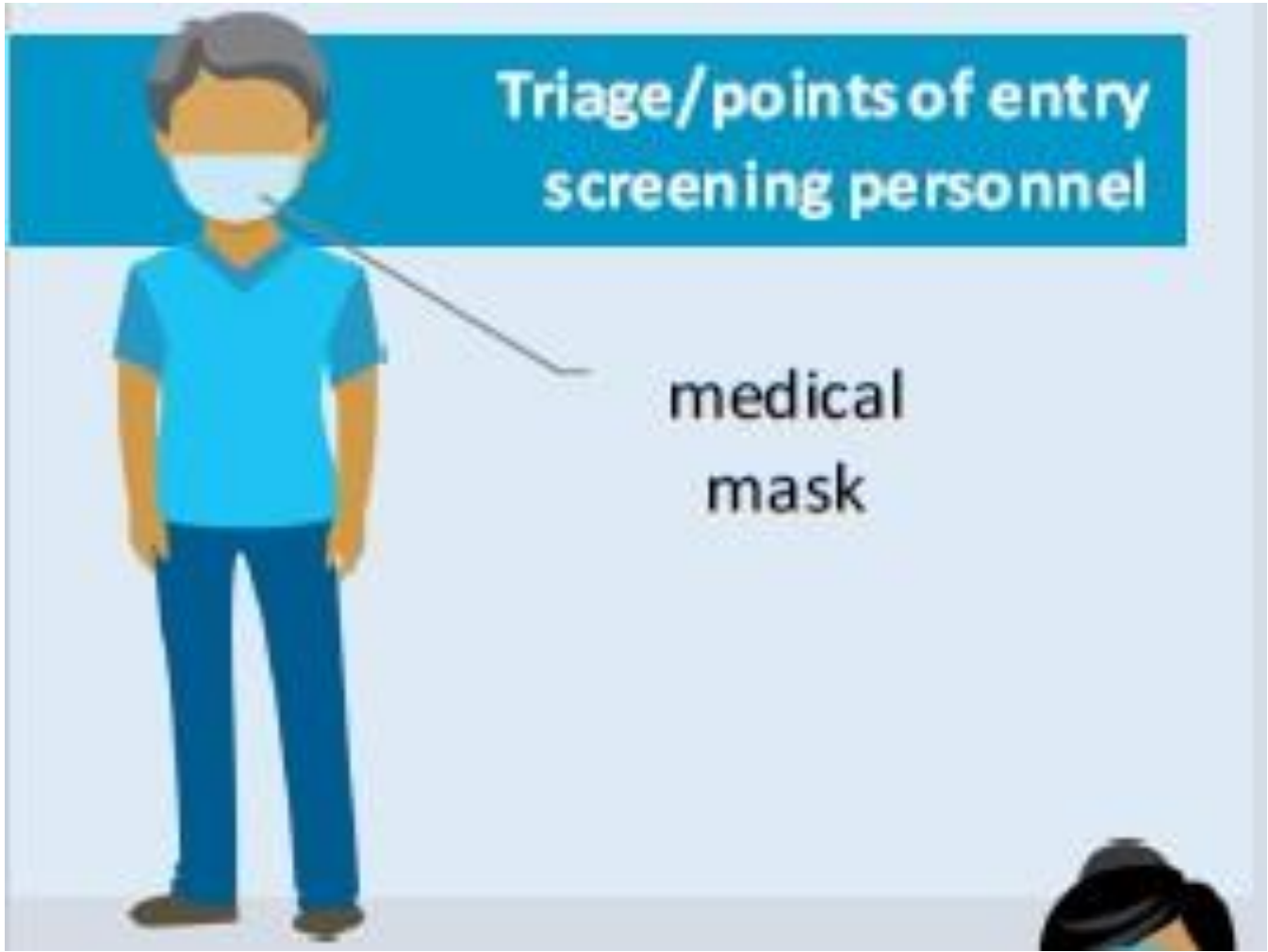
- Questions to ask yourself:
  - Is it designed for the task at hand or the risk to be avoided?
  - Is it disposable or reusable?
  - How often should it be changed, cleaned or disinfected?
  - Is it available in several sizes? If yes, which size is best for me?
  - Other problems to be aware of (supply, storage, availability)?

Choosing the correct PPE:

If you are **EDUCATING** and **SCREENING** patients, you only need to wear a ***medical/surgical mask***.

You should also try to keep **1-2 metres** between you and the patient at all times

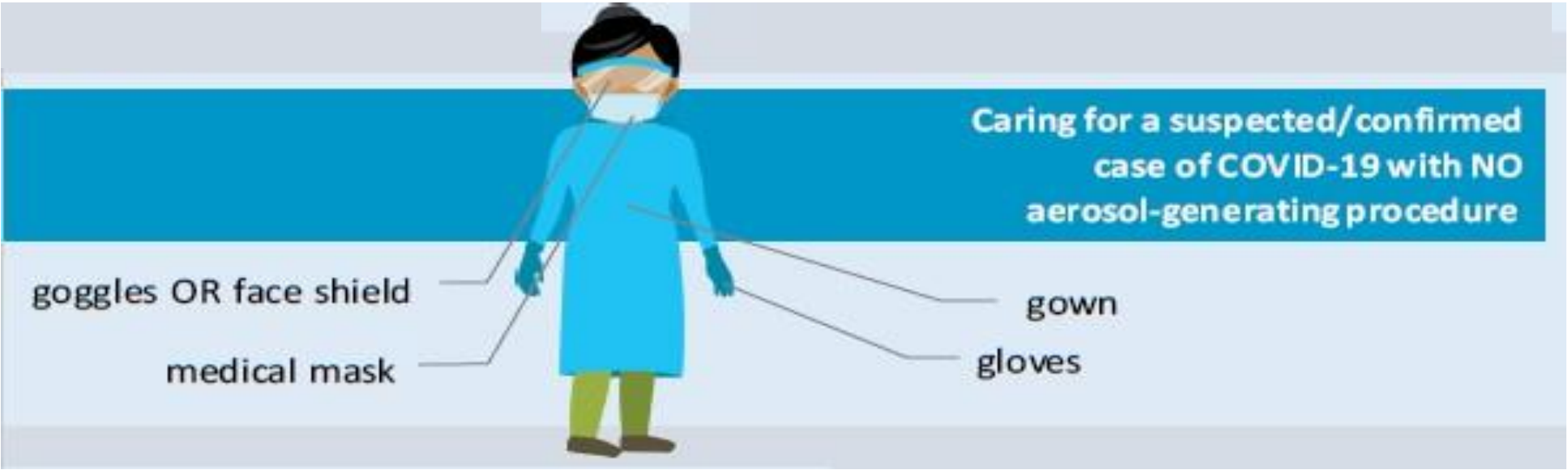




How do I know what PPE to wear?

If you are **ASSESSING** patients, you need to wear:

- Goggles or face shield
- Medical/surgical facemask
- Gown or plastic apron
- Non-sterile gloves



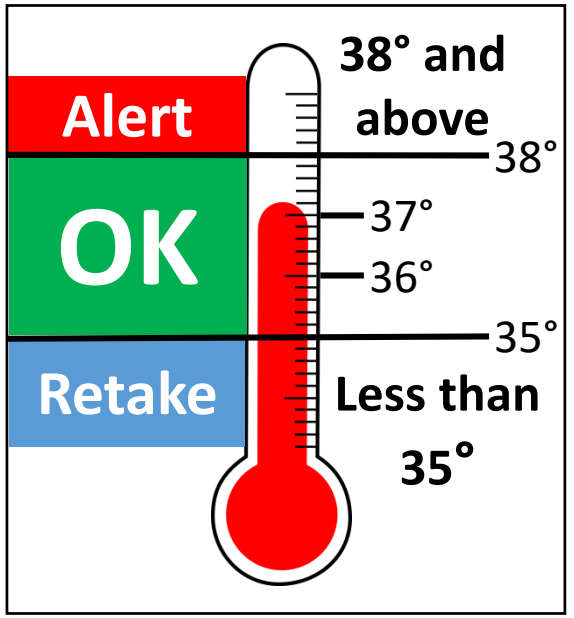
How do I know what PPE to wear?

If you are **TESTING** patients, you need to wear:

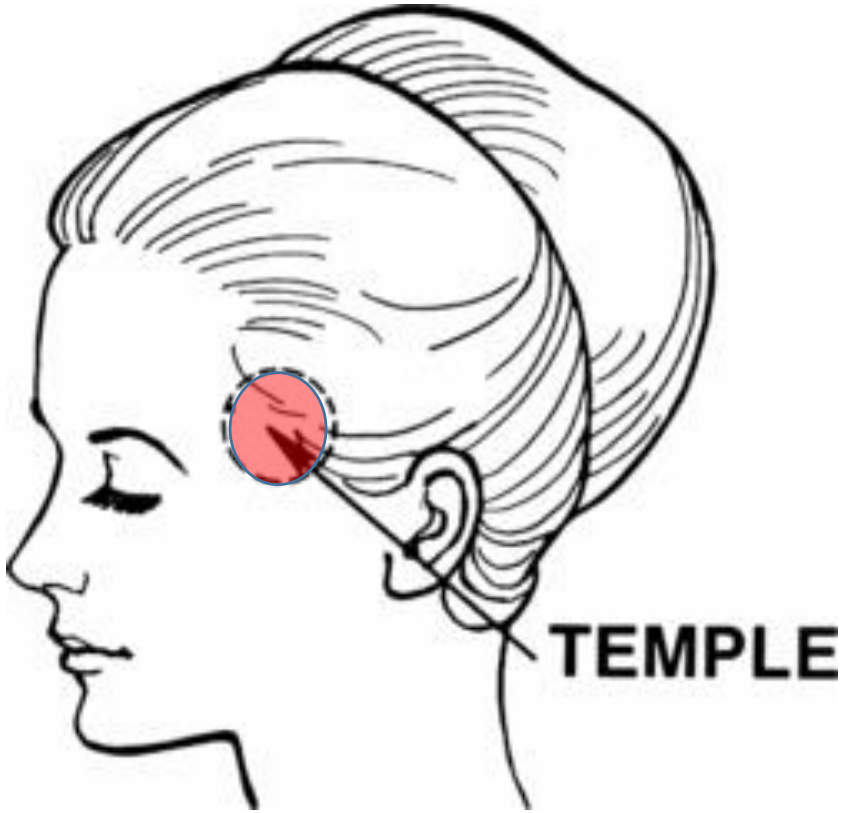
- Goggles or face shield
- N95 respirator
- Gown or plastic apron
- Non-sterile gloves

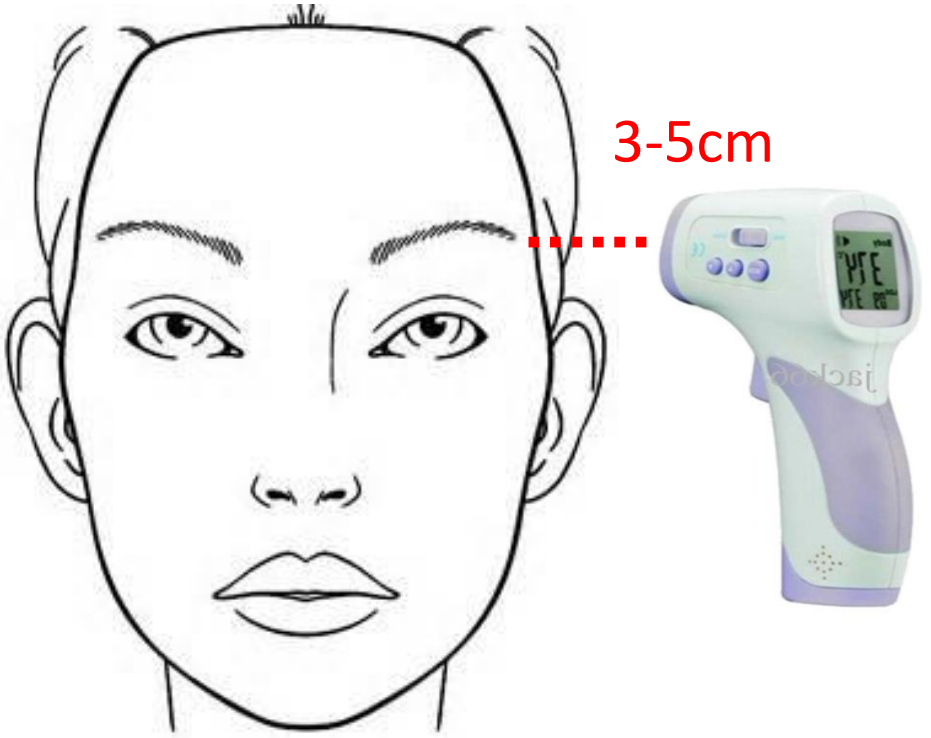
How to Use an Infrared Thermometer

- Take the person's temperature holding thermoflash 3-5cm from person's temporal area
- If <35^{o}C, retake temperature
- If ≥38 ^{o}C, reading indicates fever



Taking the Temperature Using the Infrared Thermometer





Additional…….

- Consider

-triage area to be as close as possible to HCF main entrance in order to centralize all entrances

-unidirectional flow of patients

-staffing (right cadre for the job, various shifts for coverage)

-if no existing building , make use of a tent

Ensure the following infection control measures

- Ensure that all pts.with respiratory symptoms cover their nose and mouth with a tissue or their inner elbow when coughing or sneezing;
- Offer a medical mask to those with suspected COVID-19 infection while they are in waiting/public areas or in cohorting rooms;
- Perform hand hygiene: 5 Moments and where necessary
- Routinely clean and disinfect surfaces which the patient is in contact with

HCW

- Apply SP at all times & additional precautions as appropriate
- For aerosol-generating procedures such as tracheal intubation, tracheotomy, cardiopulmonary resuscitation, use airborne precautions
- Refrain from touching face with potentially contaminated gloved or bare hands
- Remember risk assessment and use of PPE

Moving from screening to isolation

If patient has symptom and Exposure -
Move Patient to holding Area and Notify the authorities

Screen

Isolate

If no symptoms or exposures present, continue with visit
USING STANDARD PRECAUTIONS

Admitting suspect cases to dedicated area

- After Triage, move to dedicated area: Holding/Isolation area/room
- If transport is required for the patient, use predetermined transport routes to minimize exposure for staff, other patients and visitors, and have the patient use a medical mask
- Ensure that HCWs who are transporting patients perform hand hygiene and wear appropriate PPE
- Notify the area receiving the patient of any necessary precautions as early as possible before the patient's arrival
- Limit the number of HCWs & others who have contact with a case
- Maintain accurate record of ALL persons entering the patient's room, including all staff and visitors.

Isolation Area

- Well defined and separated from other patients/staff
- Clearly designated with signs
- Should be located close to an exit or have its own exit
  - Patients should be transferred from the isolation area to the ambulance without going through the facility
- Hand hygiene stations MUST be available
- Bed with plastic mattress cover
- Chair should be available
- Bucket or latrine for human waste

Isolation / Holding Area

- Place individual in single room with adjoining dedicated toilet
- If single room is unavailable:
  - Place / cohort patients in specific confined areas
  - Place at least 1 meter (3 feet) distance between patient beds
  - Rope off/put border around the area to prevent entry by non-essential personnel
  - Assure good ventilation, close doors, do not use fans

Principles to Remember While Working Inside the Isolation Area

- Any materials brought into the isolation area must stay in the isolation area
  - Medical records should be reviewed prior to entry
  - Medications should be measured before entering
  - All waste created in the isolation area must be treated as infectious waste
  - Equipment must be disinfected before removing from isolation area

Isolation / Holding Area

- Assign personnel exclusively to isolation areas
  - Staff should not move freely between the isolation areas and other clinical areas
- Restrict all non-essential persons from isolation areas
- Maintain a register of all persons who enter the isolation area

If you have no isolation room

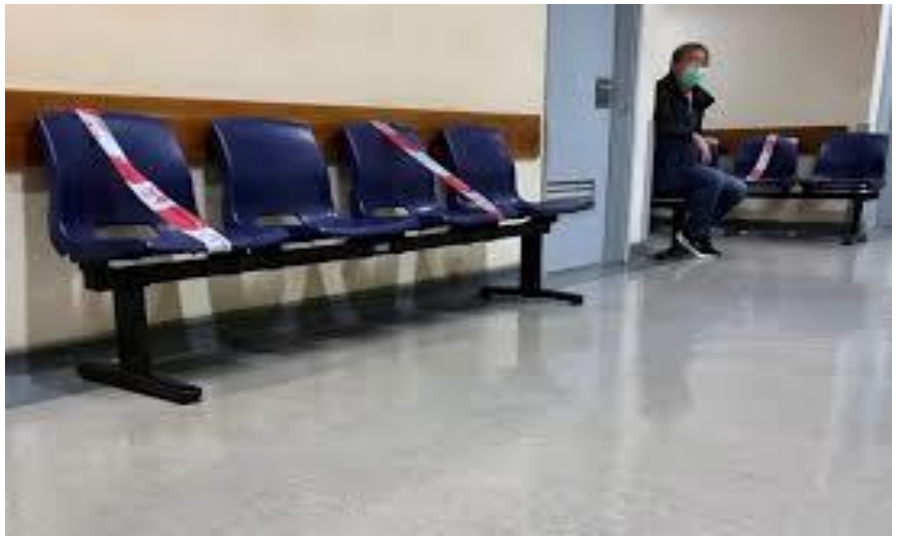
- What do you do?
- How can you separate the patient from others?
- What space exists that can be adapted?
- Does it have good ventilation?
- Can it be reached without going through crowds ? – preferred.
- If not, how can we move the patient?

Setting up the holding room

- A room, rooms, a chair
- Restrict access, screen patient off
- Basic PPE = GLOVES, MASK, outside the room/area
- Distance yourself (3ft)
- Hand hygiene outside the area
- Dedicated staff
- Keep a register of staff/visitors

An example of triage to isolation process

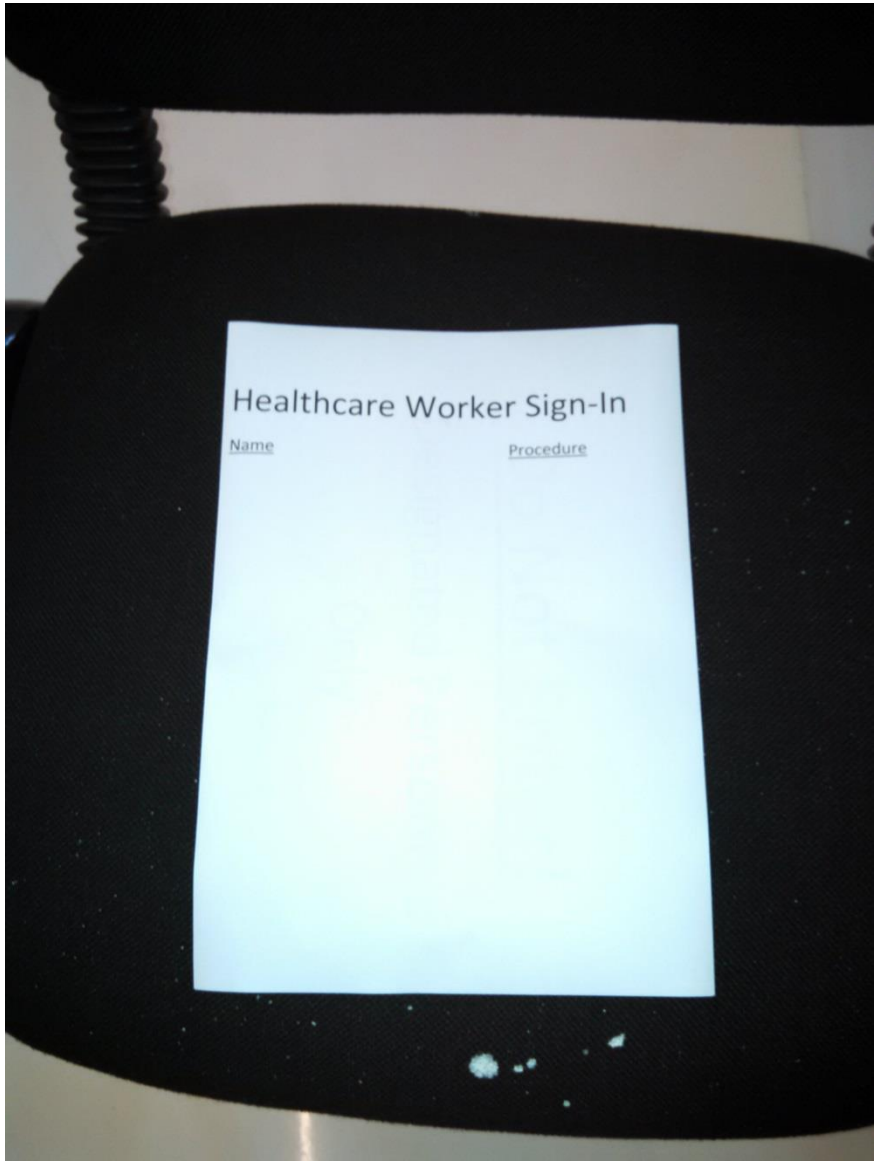
Examples of holding areas



Isolation / Holding Area

-Improve ventilation by opening windows

Isolation / Holding Area: Register



Hand Hygiene station in LIC (Non-touch technique)

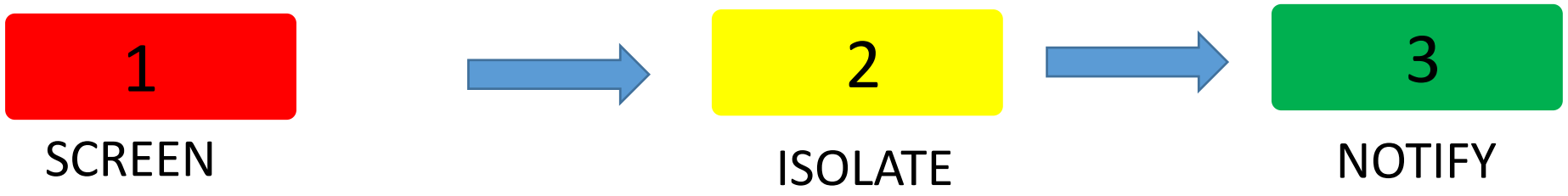
How to perform hand hygiene

How to Hand wash

How to hand rub (fingertips first)

Moving from isolation to Notification

If patient has symptom and Exposure -
Move Patient to holding Area and Notify the authorities



If no symptoms or exposures present, continue with visit
USING STANDARD PRECAUTIONS

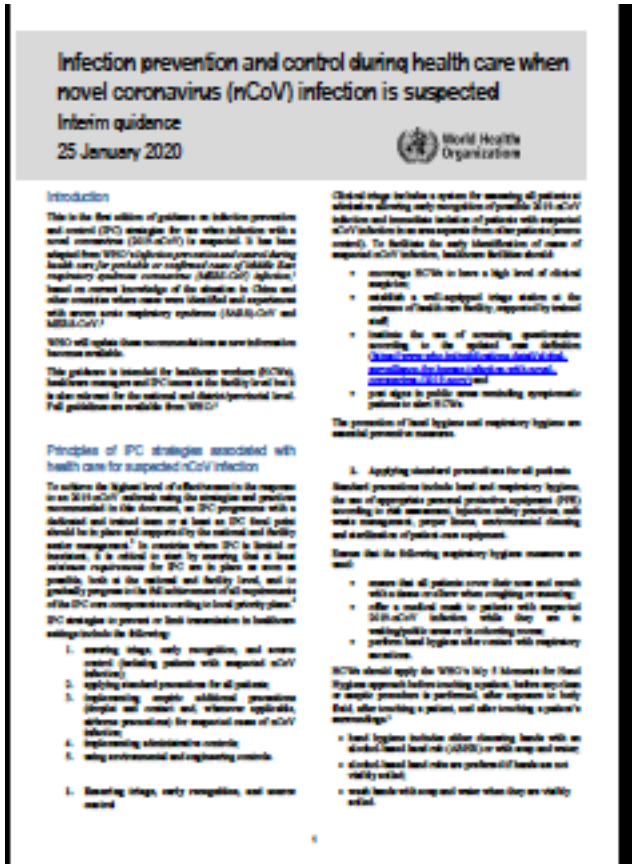
In Summary, all facilities….

- Implement screening for COUGH, respiratory symptoms and TRAVEL HISTORY at entrance to the facility / clinic / casualty / hospital
- Put a sign up asking for persons with a travel history to Covid area in 14 days to identify themselves to staff
- Provide surgical masks to persons who sneeze, cough etc
- See persons who have symptoms first
- Encourage hand hygiene amongst patients and HCW

Key Messages

- Don’t turn patients away: TRIAGE all
- Symptoms + EXPOSURE = suspect
- Suspects = keep in holding room and Notify
- Protect yourself = SPs+ Distance + appropriate PPE

Relevant guidance documents



Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected

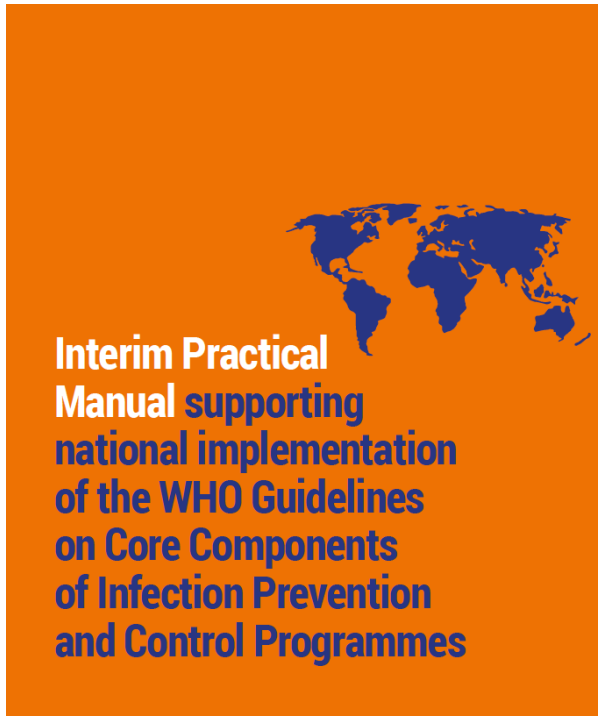
Interim guidance

25 January 2020

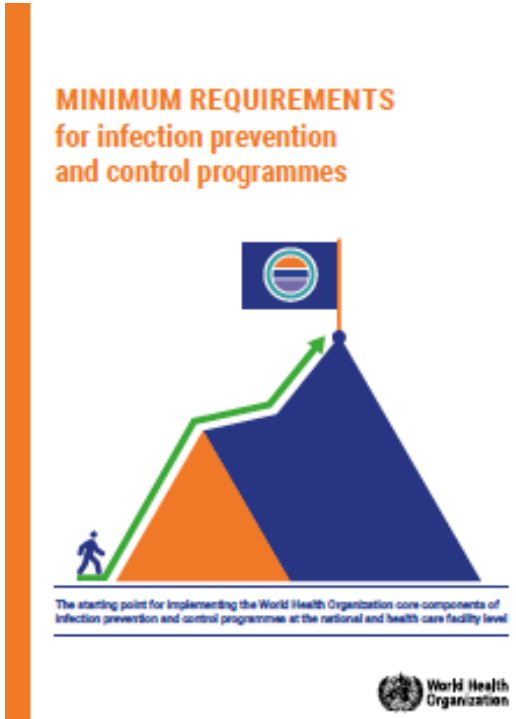
World Health Organization

Introduction

Principles of IPC strategies associated with health care for suspected nCoV infection



Interim Practical Manual supporting national implementation of the WHO Guidelines on Core Components of Infection Prevention and Control Programmes



MINIMUM REQUIREMENTS for infection prevention and control programmes

The starting point for implementing the World Health Organization core components of infection prevention and control programmes at the national and health care facility level

World Health Organization

Guidelines on Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level

World Health Organization