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COVID – 19 CARE

DOCTORS FOR YOU
THERE TO CARE

Points of Discussion

- What is COVID -19?
- Classification of disease
- Risk factors
- Transmission
- COVID -19 Response – Prevention
- COVID -19 Response – Management
- Types of COVID-19 facilities

Clinical features of COVID-19

- COVID-19 is an acronym that stands for **coronavirus disease** of 2019. The name was given by the World Health Organization (WHO) on February 11, 2020 for the disease **caused by the novel coronavirus SARS-CoV-2.**

- COVID-19 is an acute respiratory illness characterized by:
  - **Fever,**
  - **Dry cough and**
  - **Shortness of breath**.
  - Some patients may also have aches and pains, nasal congestion, runny nose, sore throat or diarrhea.
- The incubation period (time between infection and appearance of first sign/symptom) of COVID-19 is up to 14 days

Clinical features of COVID-19

CLASSIFICATION OF THE DISEASE

- ASYMPTOMATIC – *Isolation facility*
- MILD – *Level 1 care*
- MODERATE – *Level 2 care*
- SEVERE – *Level 3 care*

COVID-19 Severity

81% are asymptomatic or have mild illness

14% develop severe illness requiring oxygen therapy

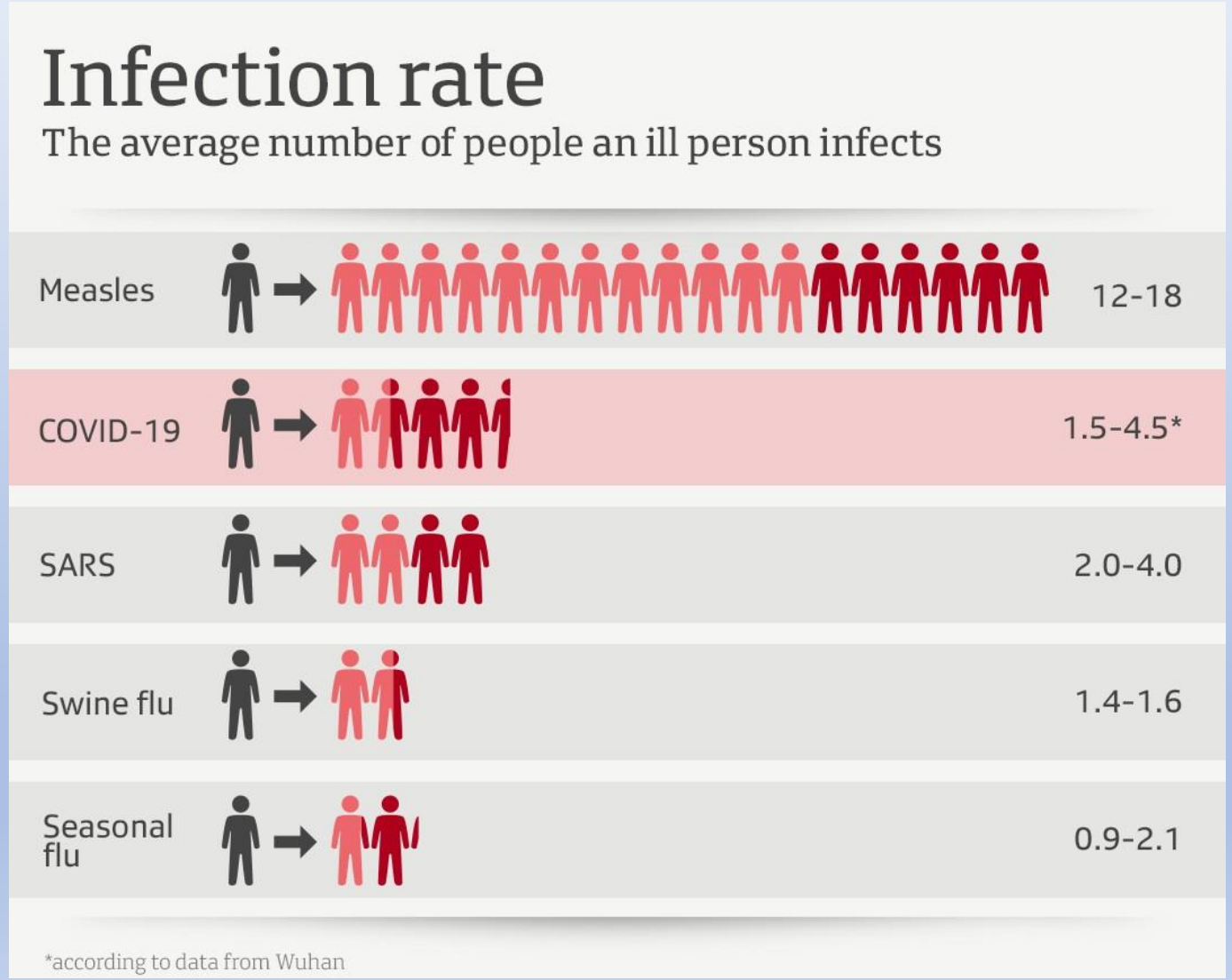
5% require intensive care unit treatment

People at risk of COVID-19

- COVID-19 is a new disease which has never existed before. Thus humans do not have any natural immunity against the virus

- COVID-19 affects people of all age groups- **BUT** the following population sub groups are at greater risk of developing severe disease with complications
  - Elderly
  - People having other co-morbidities (CVD, hypertension, diabetes, respiratory illnesses)
  - People who are immunocompromised (on immunosuppressant drugs/people with HIV)

Transmission of COVID-19



One person infected with COVID-19 can infect on an average 1.5-4.5 other people*(it varies from country to country)

This is higher than the infection rate for seasonal flu and other respiratory syndromes of recent times

This is called **R_0 (Basic Reproduction Number)** – the average number of secondary cases arising from a primary case in a susceptible population

*Data from WHO, CDC, London School of Hygiene & Tropical Medicine and various other studies

Transmission of COVID-19

- COVID-19 spreads by the viral load present in respiratory droplets of infected persons released into the air when they cough or sneeze

- These droplets can spread the **infection in two ways:**

  - **Direct spread:** by droplets that land on the face (mouth, eyes) or hands of another person. Spread by direct contact has been seen to occur within a distance of 3 feet or 1 meter

  - **Indirect spread:** by contact with a surface contaminated by respiratory droplets. The droplets settle on surfaces (floor, furniture, clothes, keyboards, mobiles etc.). The virus can survive on contaminated surfaces for up to 2-3 days.

COVID-19 Response - Prevention

R_0 depends on several factors like infectiousness of agent, susceptibility of population and exposure of susceptible population.

How to reduce R_0:

- Reducing the **spread of agent** from infected host (eg. Isolation, quarantine)
- Reducing **exposure** of susceptible host (eg. Social distancing, use of PPE)
- Reducing environmental **survival of agent** [eg. Disinfection of frequently touched surfaces, such as floors, and other commonly used areas (toilets, wash basins etc.) and objects(doorknobs, handles, keys etc.)]
- Increase **resistance** of susceptible hosts (eg. Vaccination)

Preventing Transmission: Key Principles

1. **Control the source of infection**
   - Source of infection: Confirmed COVID-19 cases (both symptomatic and pre-symptomatic)
   - Methods to control source of infection: **Testing** of suspected symptomatic and close contacts (includes pre-symptomatic cases) and **isolation** of positive cases. Since there is no proved treatment of the disease, isolation of cases remains the mainstay for controlling the source of infection.

2. **Break the chain of transmission**
   - Chain of transmission: Direct and indirect spread
   - Methods to break the chain of transmission: Reducing direct contact with respiratory droplets from infected persons (**hand hygiene, respiratory hygiene, use of masks, social distancing, quarantine of contacts**) and reducing indirect contact with surfaces infected with respiratory droplets (**infection prevention and control protocols**)

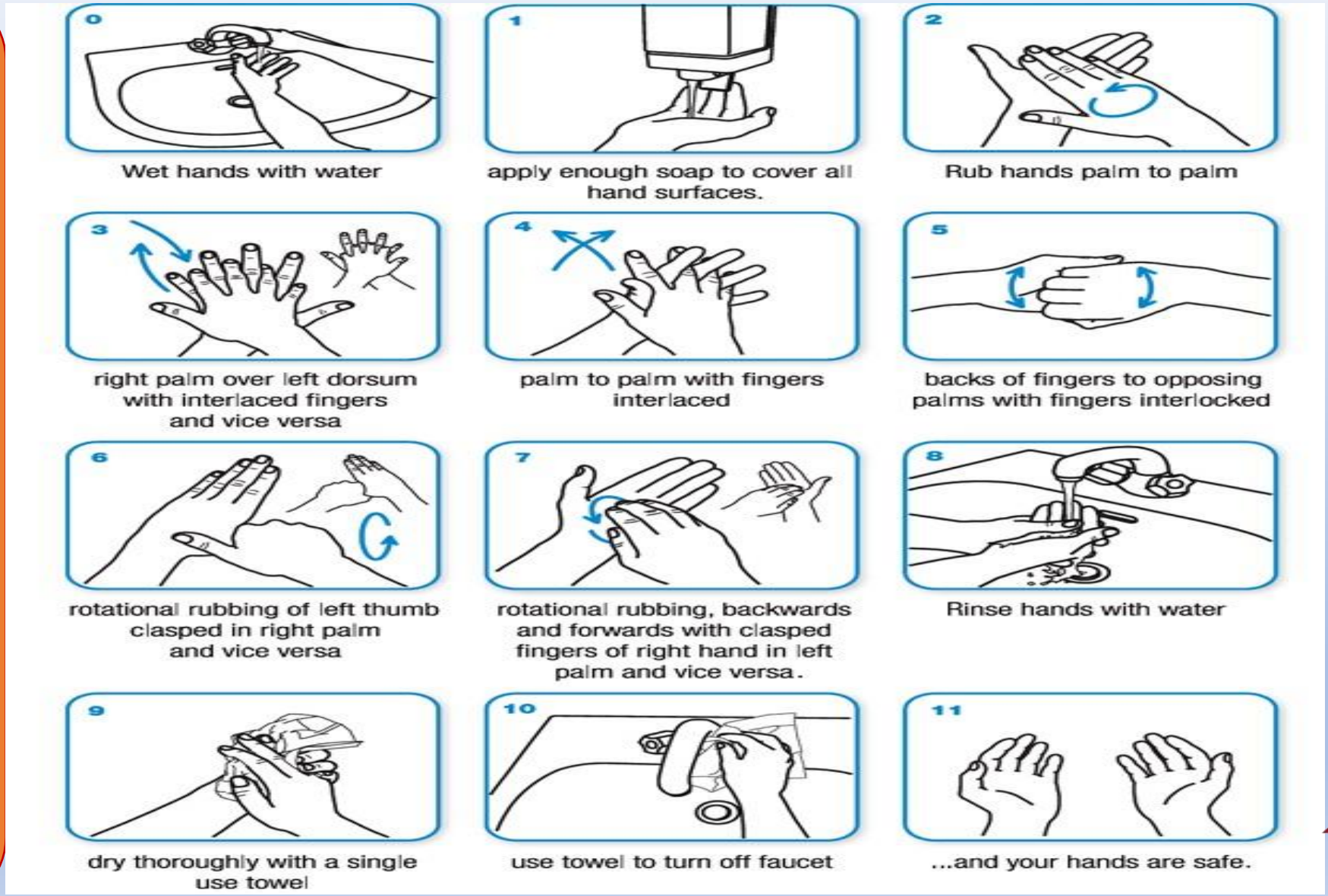
3. **Reduce susceptibility to infection**
   - **Vaccination**

WHO prescribed steps of handwashing

- **Wash hands with soap and clean water for at least 40 seconds**
- **Clean hands with alcohol-based hand rub for at least 20 seconds**

Make sure to wash your hands :

- After coming home from outside or meeting other people especially if they are ill.
- After having touched your face, coughing or sneezing.
- Before preparing food, eating or feeding children.
- Before and after using toilet, cleaning etc.



Use of masks

Cloth Mask

Triple layer surgical mask should be used by

- Persons with respiratory symptoms
- Persons in quarantine
- Healthcare workers in low risk settings (not in direct contact with COVID-19 patients).

N-95 respirator mask should be used by healthcare workers at high risk settings (e.g. during clinical examination of patients, conducting aerosol generating procedures, etc.)

Wash hands after removing and before wearing fresh masks

Measures to reduce indirect transmission

Don't touch surfaces

- The virus survives on surfaces of inanimate objects for a few days.
- Therefore, **avoid touching doors, handles, table tops, key boards, mobiles etc.** of other people in public places.
- Also wash hands thoroughly after any contact with these

Disinfect

- Clean AND disinfect frequently touched surfaces **at least once daily with household disinfectants and 1% sodium hypochlorite**. This includes table tops, doorknobs, light switches, countertops, handles, desks, toilets, and sinks.
- Phones, computers, remote controls etc. should be disinfected with alcohol based (70% or more) disinfectant
- Clothes should be washed with common detergent. If handkerchief is used to cough or sneeze, or as a face mask, it should be washed daily before reusing.

Dispose safely

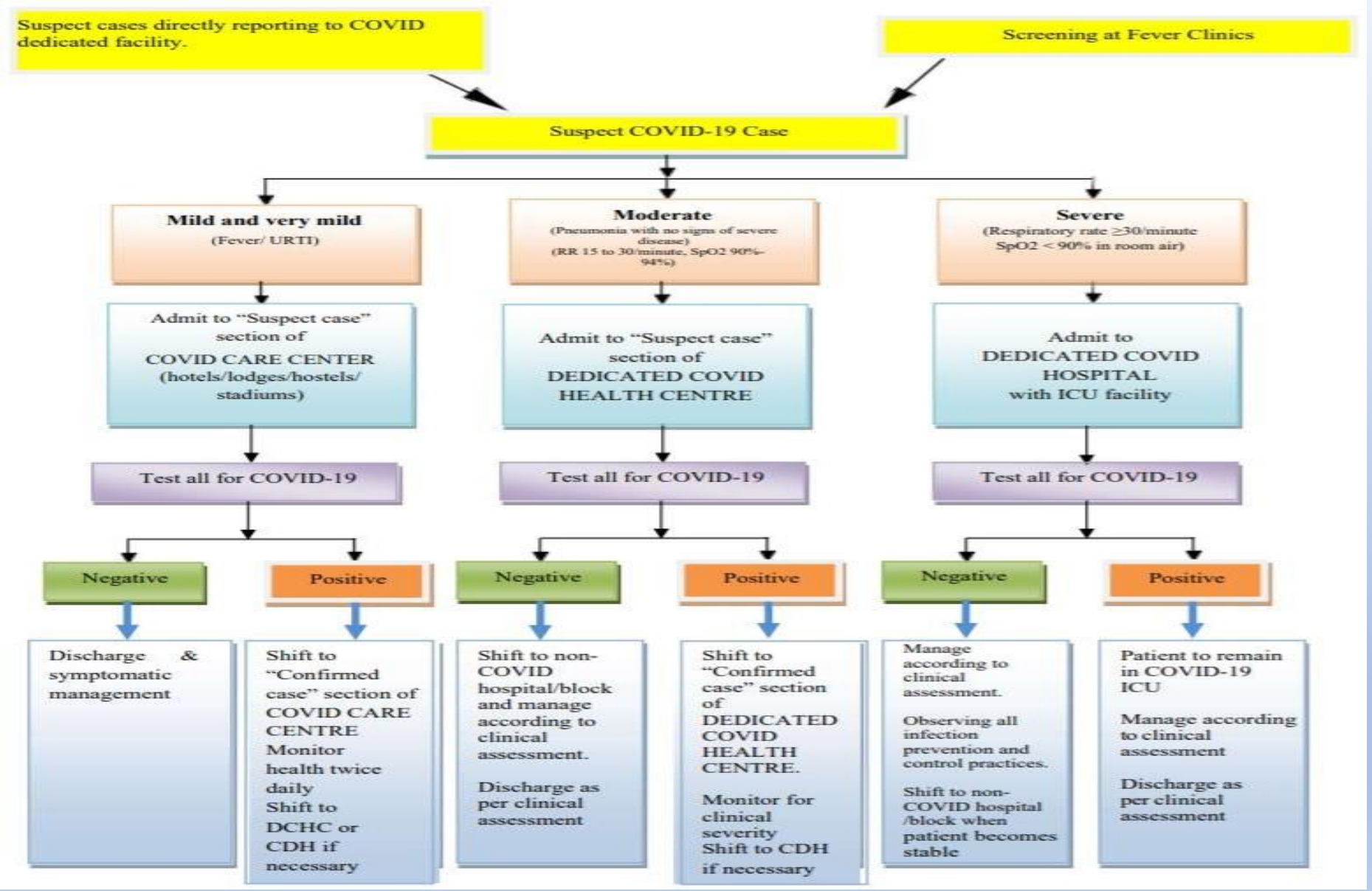
- All tissues and non-reusable masks should be disposed safely by burning or deep burial after disinfection with 1% sodium hypochlorite solution.

Management

Types of cases – 1. Suspect
2. Confirmed Case

Testing – Rapid Antigen
RTPCR

MOHFW's treatment strategy for COVID-19



Types of COVID-19 dedicated facilities

1. COVID Care Center (CCC): LEVEL 1

- **Only for cases that have been clinically assigned as mild or very mild cases or COVID suspect cases.**
- **Makeshift facilities set up in hostels, hotels, schools, stadiums, lodges etc., both public and private.**
- **Must necessarily be mapped to one or more Dedicated COVID Health Centres and at least one Dedicated COVID Hospital for referral purpose.**

2. Dedicated COVID Health Centre (DCHC): LEVEL 2

- **Hospitals (full hospital or a separate block in a hospital with preferably separate entry\exit/zoning) that shall offer care for all cases that have been clinically assigned as moderate.**
- **Beds with assured Oxygen support. Dedicated Basic Life Support Ambulance (BLSA) equipped with sufficient oxygen support for ensuring safe transport.**
- **Must necessarily be mapped to one or more Dedicated COVID Hospitals.**

3. Dedicated COVID Hospital (DCH): LEVEL 3

- **Comprehensive care (full hospital or a separate block in a hospital with preferably separate entry\exit) primarily for those who have been clinically assigned as severe.**
- **These hospitals would have fully equipped ICUs, Ventilators and beds with assured Oxygen support.**

All the facilities will have separate areas for suspect and confirmed cases. Suspect and confirmed cases should not be allowed to mix under any circumstances.

Home isolation of very mild/pre-symptomatic cases

However, recent guidelines have been issued by MOHFW for **home isolation of very mild/pre-symptomatic COVID-19 cases,** provided the patient has requisite facility at his/her residence for self-isolation.

Eligibility criteria for home isolation:

i. Should be clinically assigned as a **very mild case/ pre-symptomatic** case by the treating doctor.

ii. Should have the **requisite facility at their residence** for self-isolation and also for quarantining the family contacts.

iii. A **care giver should be available to provide care** on 24 x7 basis. A **communication link** between the caregiver and hospital is a prerequisite for the entire duration of home isolation.

iv. The patient shall agree to **monitor his health and regularly inform his health status** to the District Surveillance Officer for further follow up by the surveillance teams.

v. The patient **will fill in an undertaking** on self-isolation and shall follow home quarantine guidelines. Such individual shall be eligible for home isolation.

Guidelines for home quarantine

Instructions for contacts being home quarantined

The home quarantined person should

- Stay in a well-ventilated single-room preferably with an attached/separate toilet.
- If another family member needs to stay in the same room, it's advisable to maintain a distance of at least one and a half meter between the two.
- Needs to stay away from elderly people, pregnant women, children and persons with co-morbidities within the household.
- Restrict his/her movement within the house.
- Under no circumstances attend any social/religious gathering e.g. wedding, condolences, etc.

Instructions for the family members of persons being home quarantined

- Only an assigned family member should be tasked with taking care of the such person
- Avoid shaking the soiled linen or direct contact with skin
- Use disposable gloves when cleaning the surfaces or handling soiled linen
- Wash hands after removing gloves
- Visitors should not be allowed
- In case the person being quarantined becomes symptomatic, all his close contacts will be home quarantined (for 14 days) and followed up for an additional 14 days or till the report of such case turns out negative on lab testing

Managing mild patients at home

- Regular vital monitoring
- Timely medications
- Proning of the patient –In case of saturation fluctuation
- Maintaining proper hydration
- Management of comorbidities
- Recreational Activities
- Call the helpline numbers in case of need.

Setting up a COVID -19 facility

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- Mapping of the Infrastructure
- Preparedness
- Hiring and Training of staff
- SOP
- Logistics
- BMW management
- Referral system
- Mental Health Activities

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Mapping Of The Center

- Red zone
- Green zone
- Orange Zone - Donning/Doffing areas
- Entry/Exit points

Preparedness in response to COVID-19

The facility should be modified **to prevent spread of COVID-19 infection from suspected**
cases to other patients or healthcare staff.

You may achieve this by:

- **Assigning a screening desk** at the entrance for segregating all patients into COVID-19 suspects and non suspects and if patient can be managed in the facility or not
- **Assigning designated staff** for the screening desk
- **Assigning separate waiting areas** for suspected cases of COVID-19 and other patients
- **Arranging for safe physical distancing in screening and waiting areas** between patients in waiting
  area and between patients and staff, as much as possible
- **Teaching the staff to following all necessary Personal Protective Equipment (PPE) wearing protocols and personal hygiene practices** : especially hand wash after every potential contact with patients, their secretions, linen etc.
- **Monitoring the staff and yourself for symptoms and getting tested as soon as symptoms develop**

Preparedness in response to COVID-19

You should ensure the following **infection prevention protocols** at the facility:

- **All health care workers including frontline workers are to be trained** in standard protocols for Infection Prevention Control and should adhere to advisories for infection prevention, personal protection and physical distancing norms, for facility level care, outreach visits or home-based care.
- **Disinfection of floors and surfaces should be done at least twice a day** by cleaning with 1% sodium hypochlorite solution. This includes entrance area, screening area, registration desk, waiting area, consultation area, designated area for suspected COVID-19 cases, laboratory, pharmacy, etc.
- **Disinfection of ambulances transporting suspected COVID-19 cases** after every visit
- **Biomedical waste management** with special focus on disposal of PPE.
- **Separate handwashing area** with availability of soap or liquid handwash.
- **Hand sanitizers and hand wash** should be available for use at the facility

Hiring And Training Of Staff

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Standard Operating Procedure

- Admission protocol – as per equipment at the facility
- Movement of patients
- Triaging/screening
- Treatment protocols
- Referral protocols
- Discharge protocols
- Feedback

Logistics

- Checklist
- Procurement
- Quality

Biomedical Waste management

- Keep separate colour coded bins/containers (labelled as ‘COVID-19’) in wards andmaintain proper segregation of waste as per Bio Medical Waste Management (BMWM) Rules.

- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation ward.

Biomedical Waste management

- In addition to mandatory labelling bags/containers used for collecting BMW from the COVID-19 wards, should be labell as ‘’COVID-19 Waste”.

- **Keep COVID -19 labelled waste separately temporary storage room prior to handing o to authorised staff of CBMWTF.**

Biomedical Waste management

- Maintain separate record of waste generated from COVID-19 isolation wards.
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label ‘’COVID-19 waste” to be placed on these items also.
- The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution.
- Depute dedicated sanitation workers separately for BMW and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.

Referral System

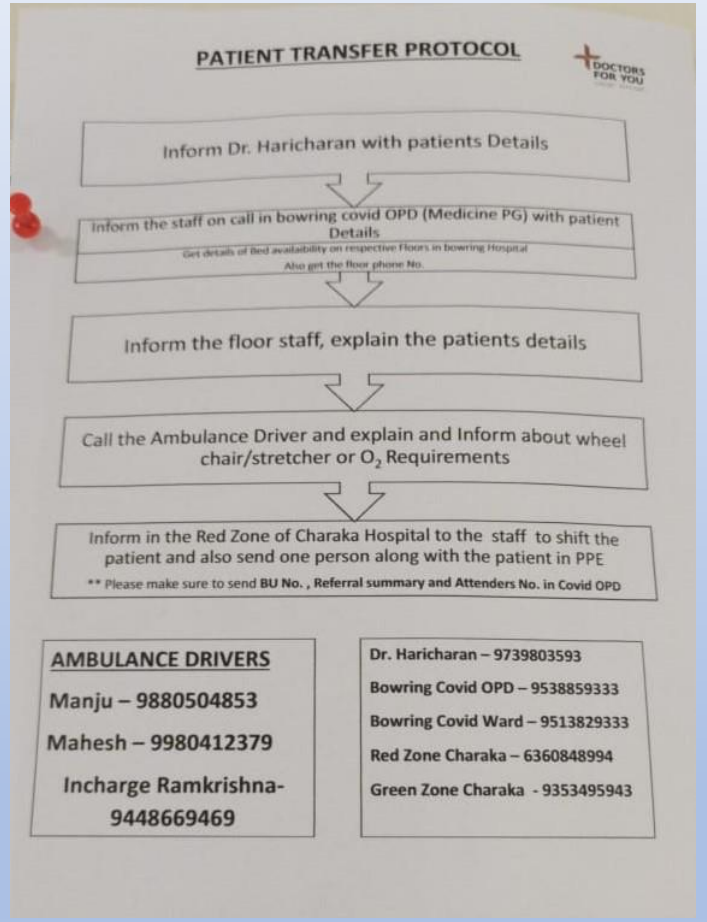
LEVEL – 1

↓

LEVEL – 2

↓

LEVEL – 3



PATIENT TRANSFER PROTOCOL

Inform Dr. Haricharan with patients Details

Inform the staff on call in bowring covid OPD (Medicine PG) with patient Details

Get details of Bed availability on respective Floors in bowring Hospital

Also get the floor phone No.

Inform the floor staff, explain the patients details

Call the Ambulance Driver and explain and Inform about wheel chair/stretcher or O_2 Requirements

Inform in the Red Zone of Charaka Hospital to the staff to shift the patient and also send one person along with the patient in PPE

** Please make sure to send **BU No. , Referral summary and Attenders No. in Covid OPD**

AMBULANCE DRIVERS

Manju – 9880504853

Mahesh – 9980412379

Incharge Ramkrishna-9448669469

Dr. Haricharan – 9739803593

Bowring Covid OPD – 9538859333

Bowring Covid Ward – 9513829333

Red Zone Charaka – 6360848994

Green Zone Charaka - 9353495943

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Mental Health Activities

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