



SkillsForMED

Patient Care Skills Training Centre

Healthcare Worker Safety for the COVID-19 Pandemic

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Upskilling Healthcare for India!



Understanding Behaviour

The Genius of COVID-19!



Introduction



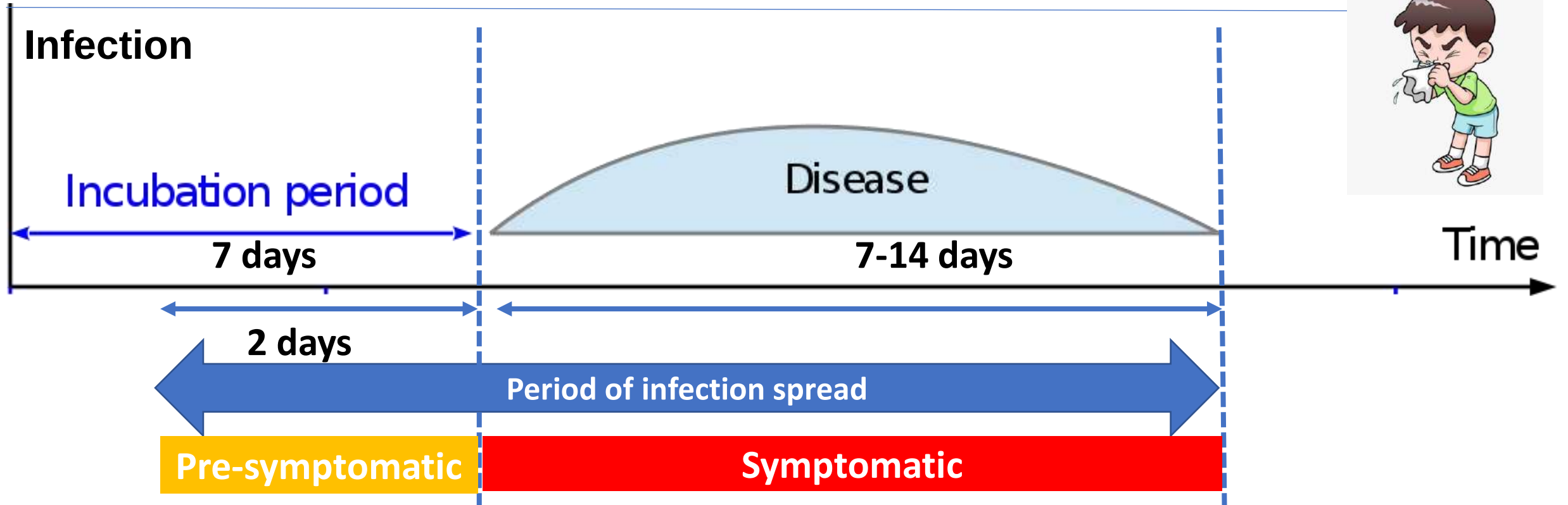
- Coronavirus or COVID-19 is a virus that is affecting humans **for the first time**.
- Therefore, our bodies have **no defense (immunity)** to fight against it.

Before we talk about prevention strategies, we need to understand the behavior:

- Virus: how it's spread is different from other coronavirus.
- Humans: How our (unchanged) habits is a catalyst for the spread.



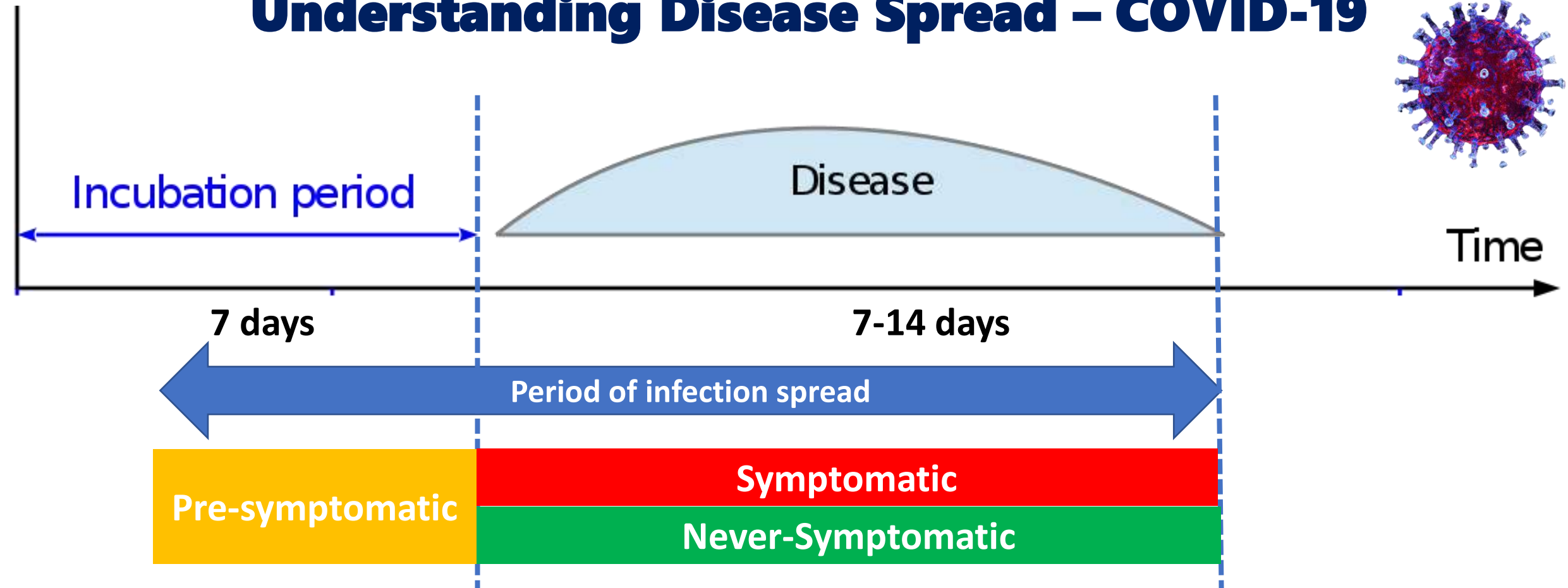
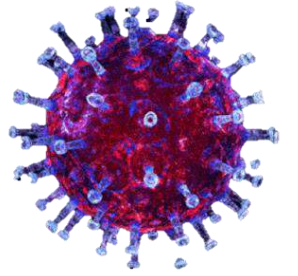
Understanding Disease Spread – Coronavirus



- **Spread occurs by:**
 - Pre-symptomatic people: who have been infected and are incubating the virus but don't have symptoms yet.
 - Symptomatic people who have symptoms



Understanding Disease Spread – COVID-19



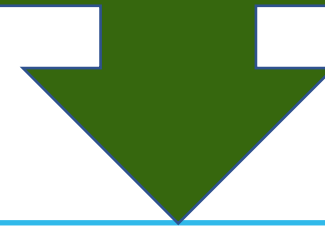
- **Never symptomatic group:**
 - Have viral load in the upper respiratory tract.
 - Have very mild or mild symptoms – they never report they are sick.



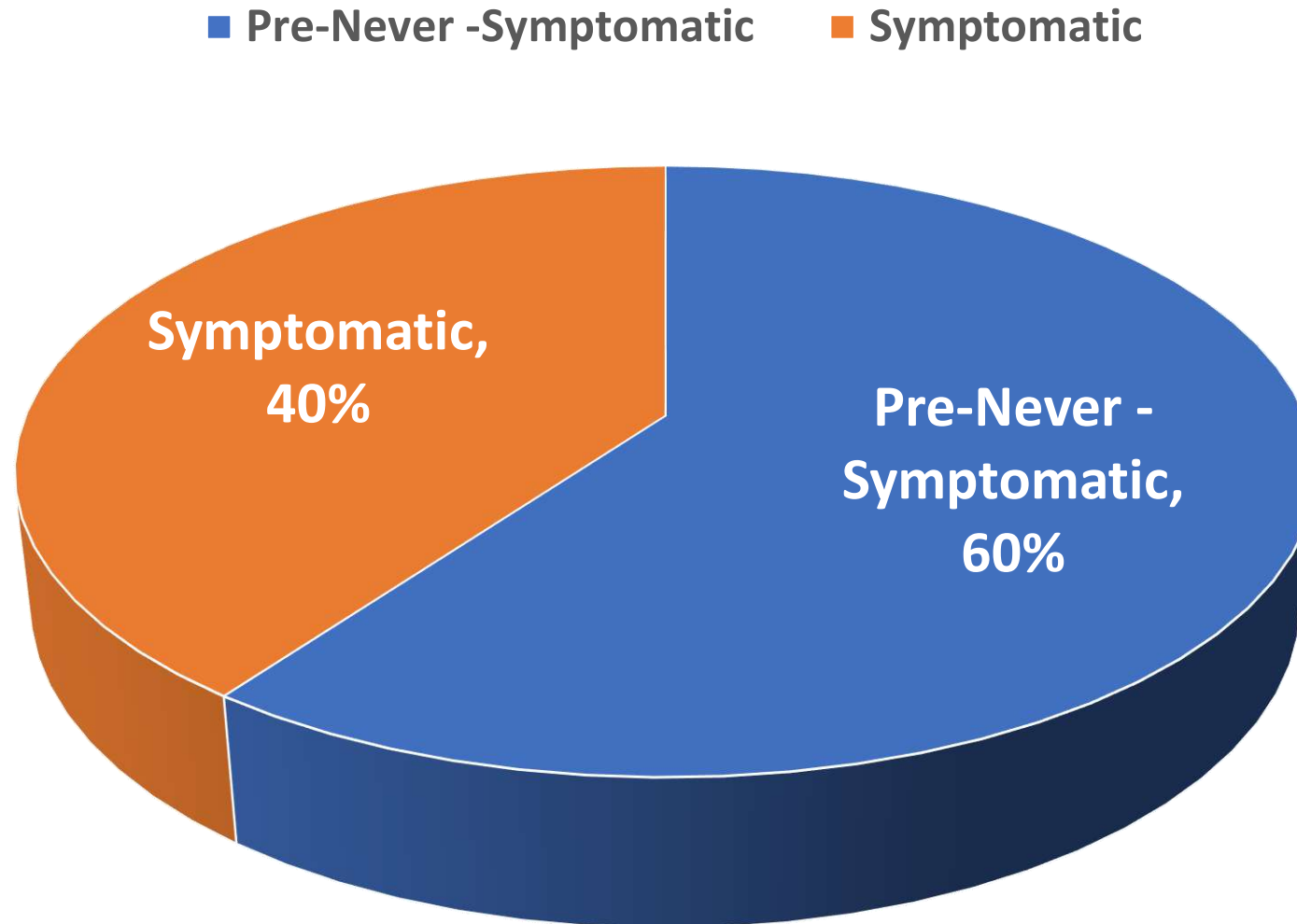
COVID -19 Spreads in 3 Groups of People



- Silent spread occurs by:
 - Pre-symptomatic patients
 - Never Symptomatic patients



Majority of Spread is by Asymptomatic Patients



**Undetected
spread**



Patients with Atypical Symptoms Spread the Disease



FEVER OVER 100.4 DEGREES



COUGH OR SORE THROAT



DIFFICULTY BREATHING



CHILLS



MUSCLE PAIN



NEW LOSS OF TASTE OR SMELL



NAUSEA/
VOMITING



DIARRHEA



HEADACHE/
FATIGUE

- Lung and heart manifestations
- Neurological manifestations
 - Stroke
- Eye and skin manifestations



Undetected
spread



Few RT-PCR Negative Patients Spread the Disease

Can RT-PCR accurately segregate COVID-19 from Non-COVID-19 patients?

- RT-PCR has a 20% false negative rate.
- 1 in 5 COVID-19 cases can be missed.



Undetected
spread



Patients in “Non-COVID” Areas

Pre symptomatic
COVID-19 infected
patients.

Never symptomatic
COVID-19 infected
patients.

Patients with
atypical symptoms of
COVID-19.

Patients who are
not detected in
RT-PCR tests.



“Non-COVID” Area Does Not Exist!

There are only two areas in any hospital:



COVID-Positive

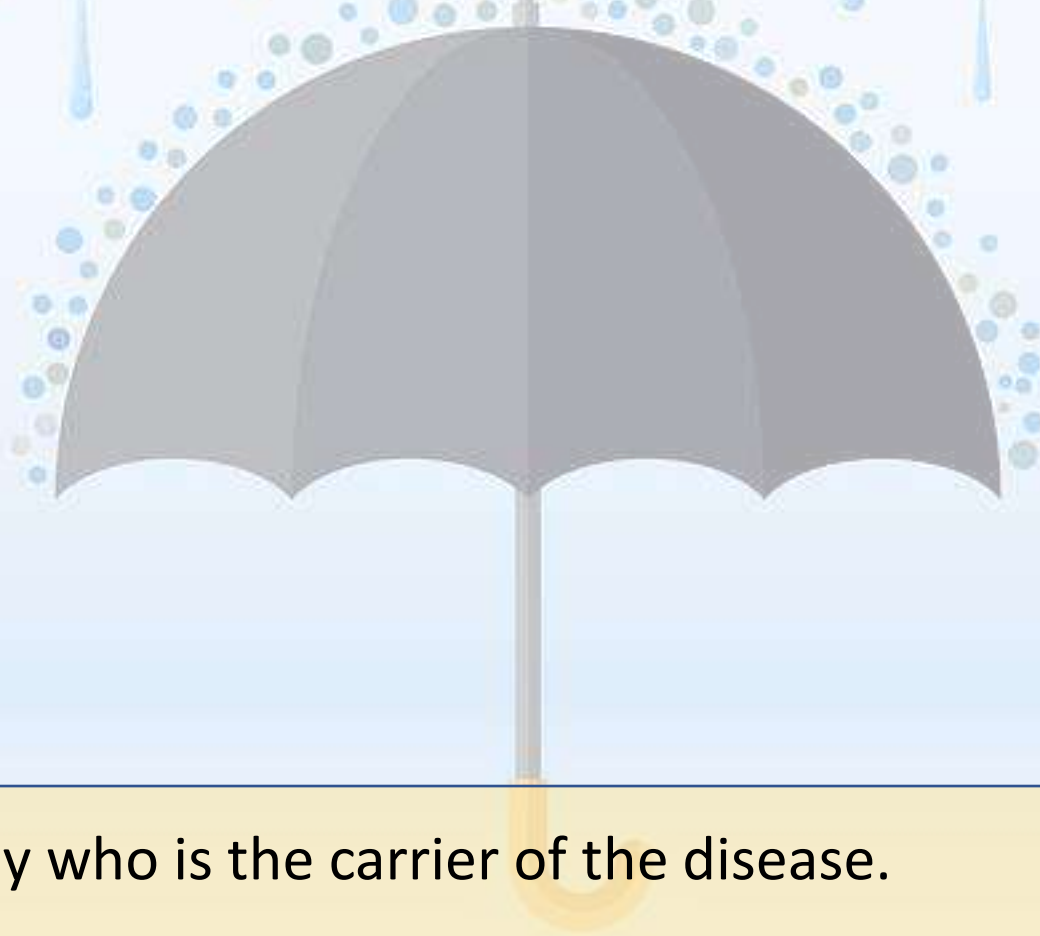


Suspected COVID

Note: This is not just for patients. It is for all people in the hospital!



Uniform Prevention and Safety



It is impossible to say who is the carrier of the disease.

Therefore, it is advisable to have an uniform preventive and safety policy for both COVID-19 and suspected-COVID-19 areas of the hospital.



Understanding Behaviour

Healthcare Workers Habits



Majority of COVID-19 infection spread amongst HCW occurs outside their work area.

WHY?

COVID-19: 15 doctors test positive in Chennai's Stanley hospital

Of the 15, four were doctors treating COVID patients while nine others were part of the task force attending group meetings. The other PG doctors.

Mumbai: KEM canteen emerges as its biggest hotspot after 21 servers test Covid-19 positive

Our Habit: Precautions Only for Patient care area

Outside workplace



Healthcare area

At workplace



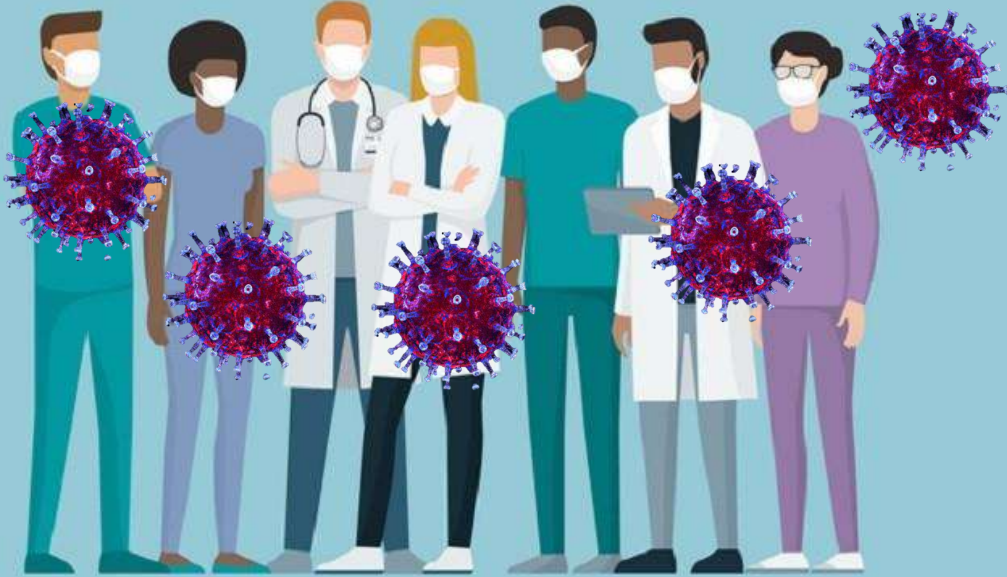
Patient care area

Barrier



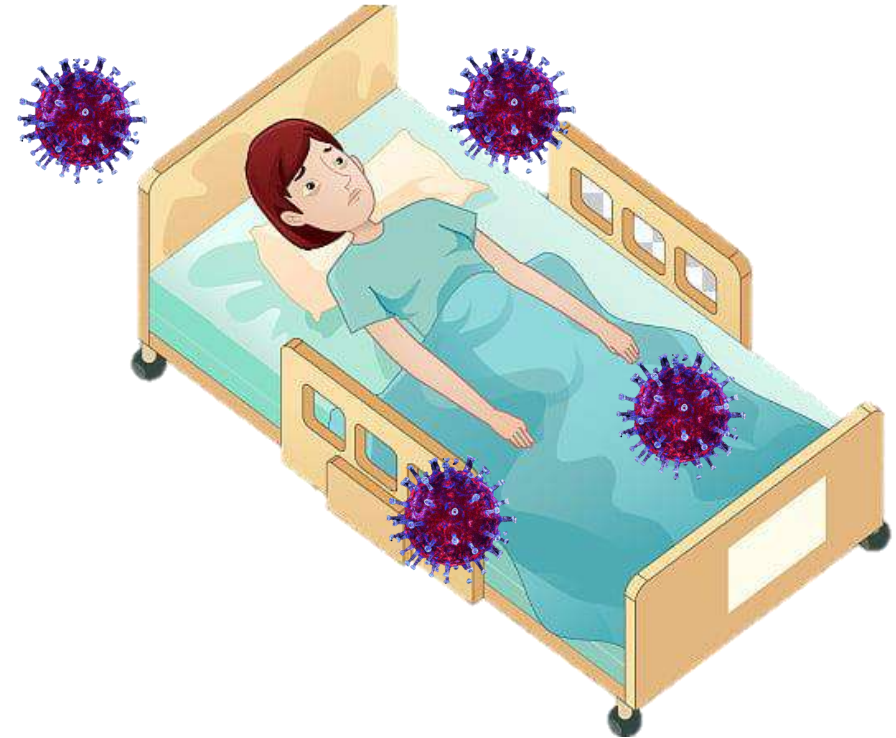
COVID-19 : Healthcare Workers are Also Infected

Healthcare workers



Healthcare area

Patients



Patient care area

Barrier



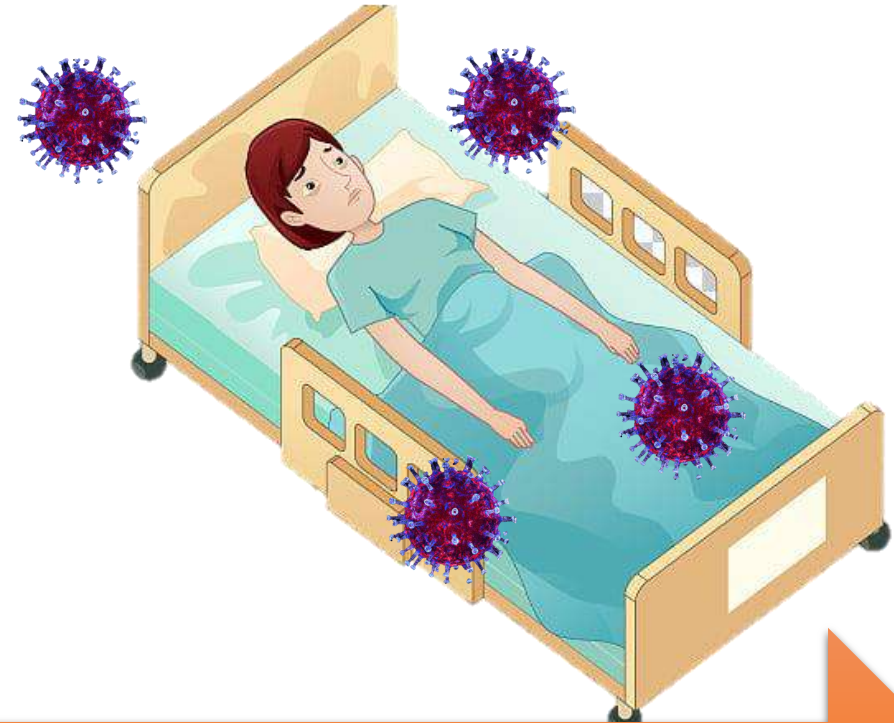
Anyone Can Spread the Disease Everywhere!



Healthcare workers



Patients



Barrier

One pandemic area



Need For Paradigm Shift

We have to understand that

- Not only patients, anyone of the HCW can also be a carrier of infection
- Precautions apply to all areas of the hospital.

And, this understanding should result in changing our habits.



Remember, when we lower that mask, we are putting ourselves and others at risk, as either could be a carrier of COVID-19 infection!



Ensure Universal Safety

Consistent adherence to safety from entry to exit of the hospital.

Avoid all non-patient care related direct personal interactions and meetings.
Instead interact by mobile, messaging apps and other teleconferencing tools.

If direct meetings cannot be avoided, maintain social distancing and wear PPEs.

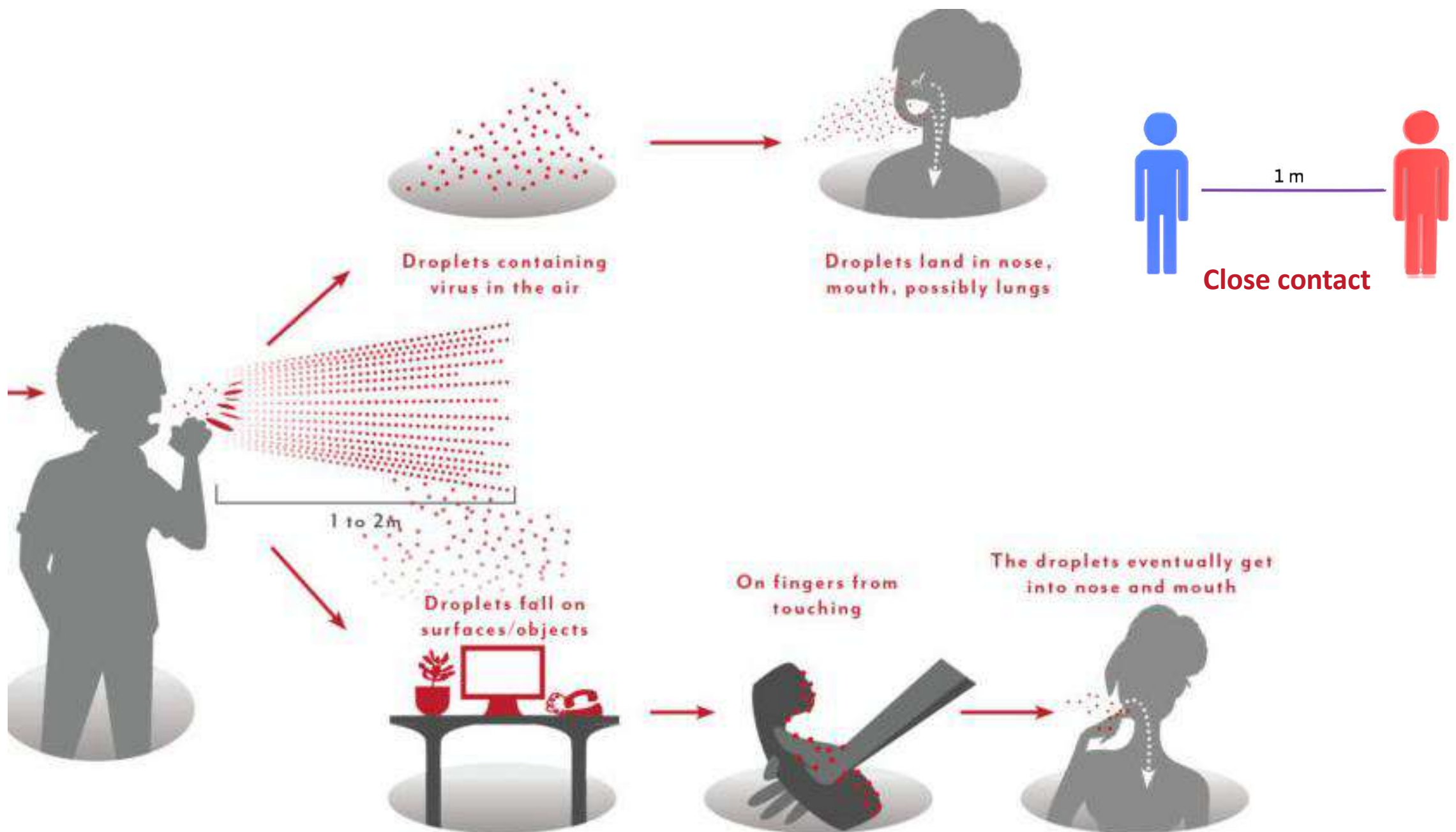
Excuse yourself from social gatherings outside work.



Understanding Modes of Spread

Droplet, Contact, Airborne





Droplet Spread and Prevention

From one person to another

How to prevent it?

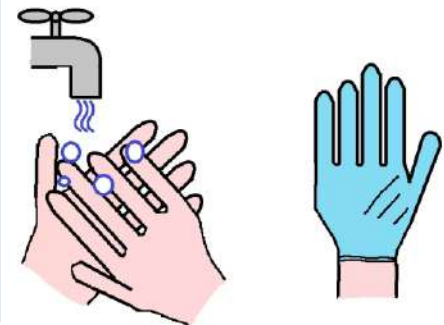
- Maintain social distancing (At least 1 meter).
- Cough etiquette
- Wear mask and visor.



From a surface

How to prevent it?

- Disinfect all surfaces (especially high-touch surfaces).
- Perform hand hygiene.
- Wear gloves during patient care.



Airborne Spread and Prevention

Doubtful?

Confusing evidence for and against.

Definitely occurs:

During aerosol producing procedures [AGP]
(Nebulising, biPAP, NIV and endotracheal intubation)

How to prevent it?

Wear N95 mask and full PPE.



Prevention of Spread

From others: Source control!



Source Control

Everyone should wear masks .

What type of mask?

- Three layer.
- Should cover nose and mouth

Note: People not wearing proper masks should be provided three layer masks at entrance.



People Screening

Wearing a mask? Else provide a mask to the patient.

Performed hand hygiene? Else, ask them to do so.

Is result of RT-PCR available?

Yes and positive

Segregate these patients separately.

No or test negative (suspected)

Does the person have any symptoms?
(use checklist)

Yes

Refer to fever clinic.

No

Admit (OP/IP).



People Screening Checklist

Ask if the patient has any of the following respiratory symptoms?

- ☐ Cough
- ☐ Sore throat
- ☐ Shortness of breath
- ☐ Fever/Chills
- ☐ Severe muscle pain
- ☐ New loss of taste or smell
- ☐ Vomiting /diarrhea



Prevention of Spread

HCW: The “FACE” Protection!



Protect Your “FACE”

During patient care, when social distancing is not possible, ensure the following:

F	Face and body protection	
A	Air circulation	
C	Cleaning and disinfection	
E	Engineering controls	

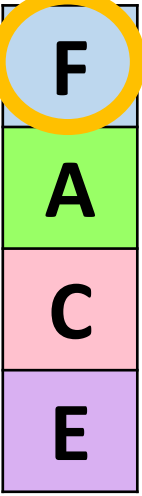


Face Protection

Goggles	Visor	What to wear?
It provides eye protection.	It covers the whole face and therefore offer additional protection against large droplets settling on the face.	Visor
		



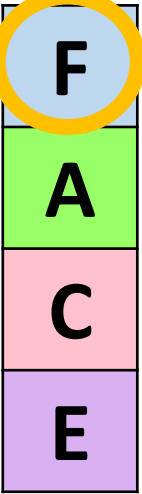
Available Options



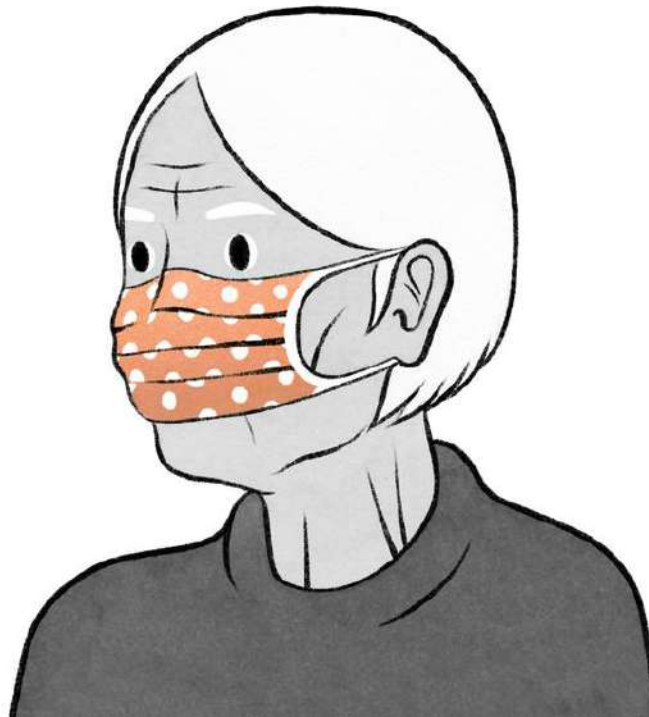
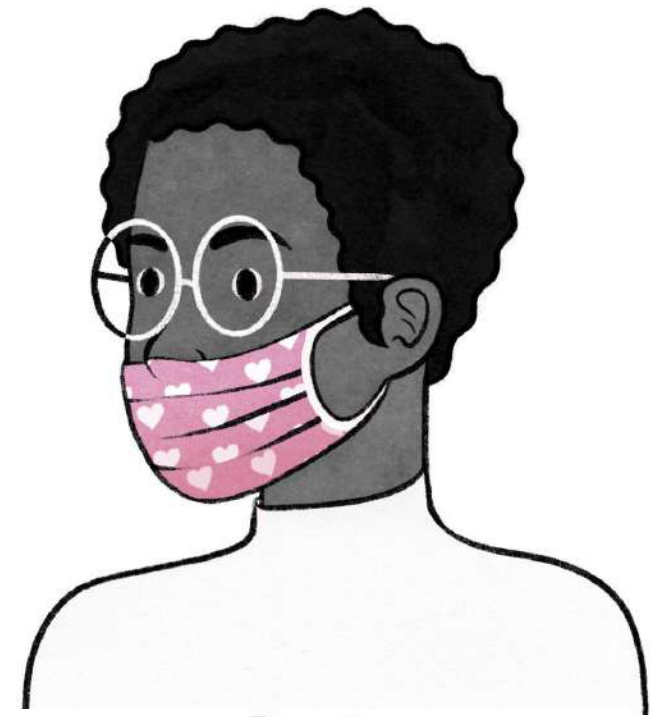
Mask

Three layer mask	N95 mask	What to wear?
It provides protection against droplet infection. And, it offers variable protection (50-70%).	It provides protection against droplet and airborne infection. And, it offers 95% protection.	Wear N95 or FFP2 mask. <i>Wearing both unnecessary and uncomfortable.</i>
		

Available Options



Improper Mask Wearing

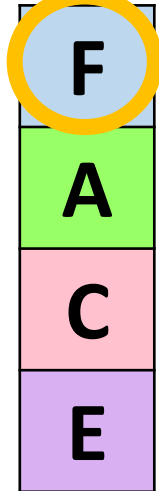


Contact Protection

Full suit/PPE kit	Surgical gown	What to wear?
Offers full body coverage.	Offers equal protection with additional head and neck hood. They are easier to wear even in non a/c and high humidity.	Surgical gown (with additional head and neck hood when necessary)
		



Are Gowns Necessary?



Cochrane review (15 May 2020):

- Low- to very low-certainty evidence that covering more parts of the body leads to better protection

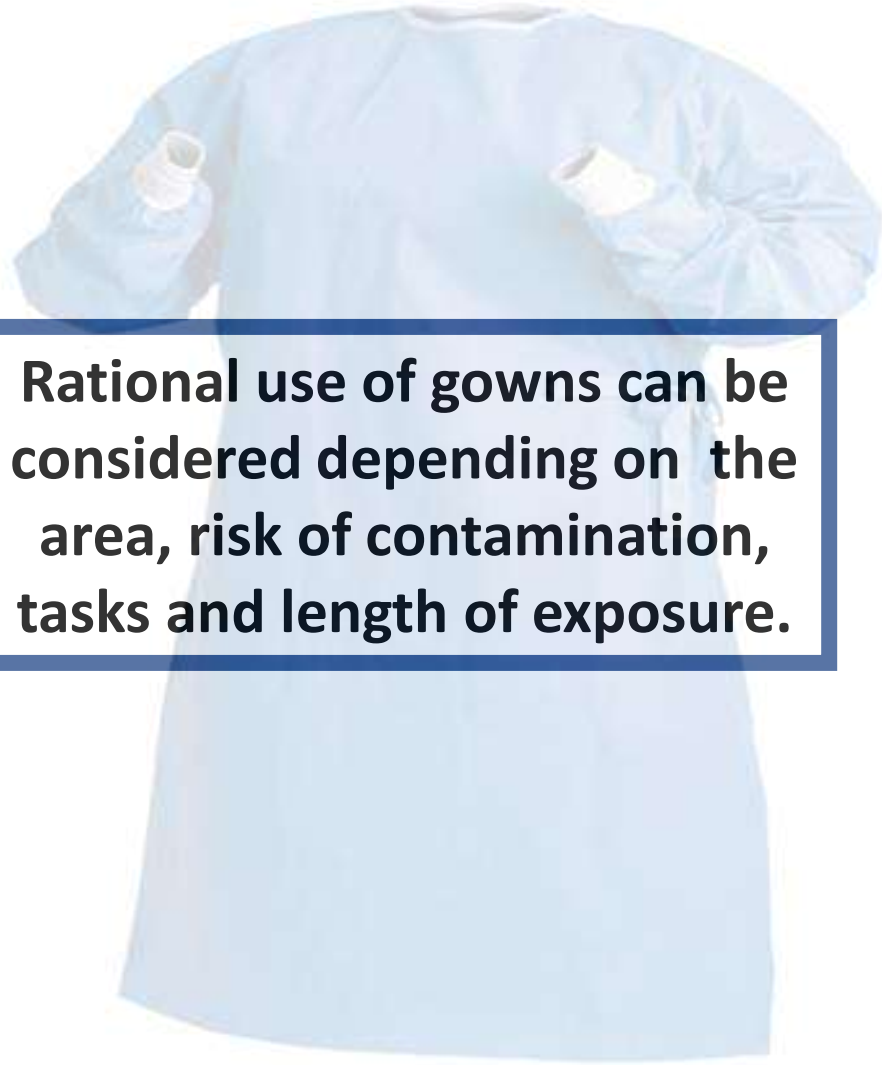
Beware of contamination!

However, both WHO and CDC recommend the use of clean, non-sterile, long-sleeved gown as of PPE for COVID-19.

- Danger of contamination especially during doffing.
- Unrestricted movement to other areas also favors spread.

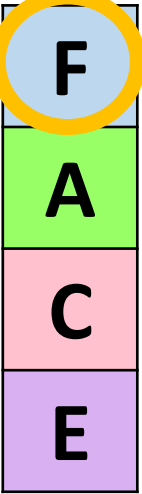


When to Wear Gown?

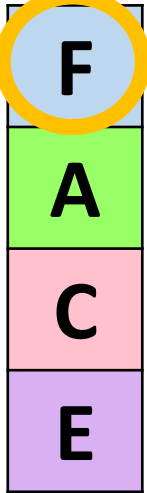


Rational use of gowns can be considered depending on the area, risk of contamination, tasks and length of exposure.

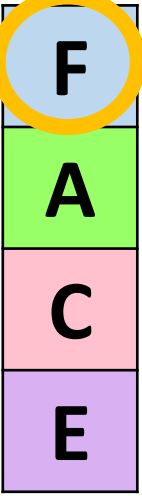
Area				
Confirmed COVID	Suspected COVID			
Yes	Length of exposure (min)		Task	
	<15	>15	Non-AGP	AGP
	No	Yes	No	Yes



Available Options



Gloves



Nitrile gloves are preferred over latex gloves because they resist chemicals, including certain disinfectants such as chlorine.

However, if nitrile gloves are not available, latex gloves can be used.

Non-powdered gloves are preferred to powdered gloves.



Gloves Spread the Disease

In general, adopt a no glove policy. Always insist on performing hand hygiene.

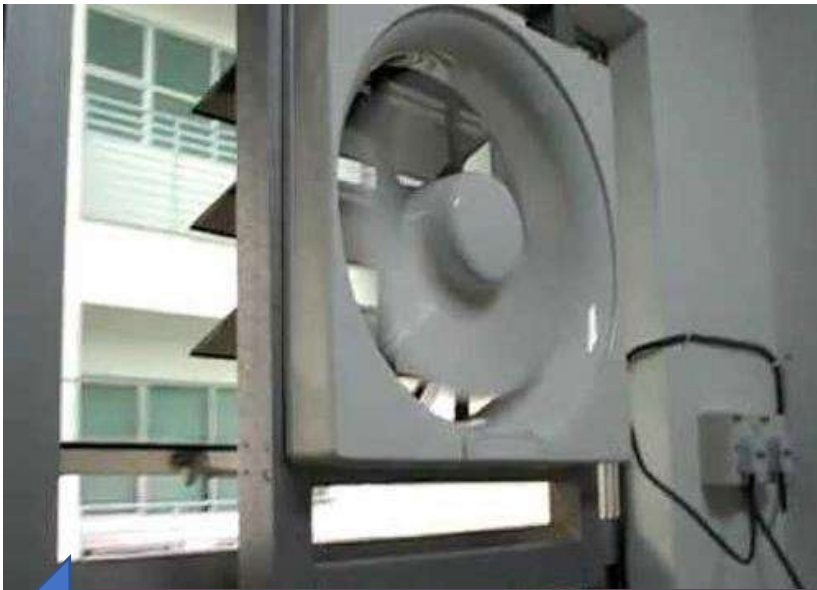
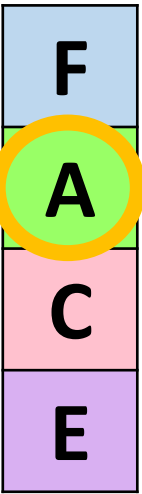
When to wear gloves?

- While examining a patient.
- While cleaning and disinfecting a surface.



Note: Discard gloves after use in an appropriate bin.

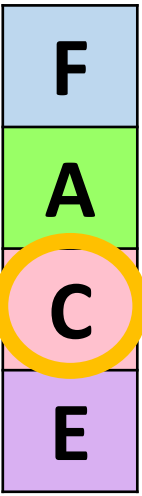
Airflow and Ventilation



- Keep all doors and windows open; maintain cross ventilation
- Sit close to a window, if available.
- Ensure airflow is away from you.



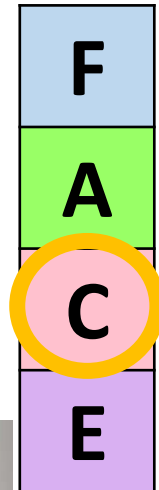
Cleaning and disinfection



- Hand Hygiene and Surface cleaning are proven and primary methods.
- Spraying and fogging unnecessary and harmful.
- U-V light can be used as an additional method of disinfection.



Cleaning and Disinfection



- Use 1% sodium hypochlorite (freshly prepared).
- Clean surfaces of patient-related equipment.
- Clean high touch surfaces.
For example: Door handles.



Note: 1% hypochlorite solution can be prepared from bleaching powder or Germ-o-Clean tablets.



Engineering Controls

F

A

C

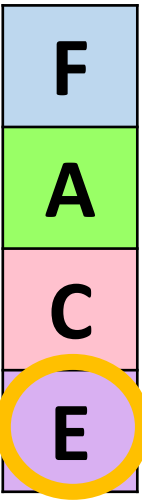
E



- Alter workflow in consulting rooms to maintain airflow and social distancing.
- Waiting area outside.
- Pharmacy –dispense medicine outside.



Engineering Controls



Use glass/acrylic partitions



Use Technology

Minimise patient contact with help of technology.

Interact with patients through phone calls and video calls.



Provide wearables to measures patient's vital parameters. For example: Provide a smart watch to measure patient's vitals.



Provide telehealth services as much as possible.



Prevention of Spread

One PPE policy for all areas



PPE Policy : Area-wise Vs. Uniform Use

COVID-19 area	Suspected-COVID
Follow a uniform single policy.	One policy for high risk areas & activities. Areas: ER, ICU, Dialysis, OT, Labour room
	One for all others.



Uniform PPE Policy-Example

No	Component	COVID-19	Suspected-COVID-19	
			High risk	Other areas
1	Dress	Hospital scrubs	Hospital scrubs	Uniform/ own dress
2	Gown	Protective gown	Protective gown	No
3	Head covers	Yes	Yes	No
4	Shoe covers	Yes	Yes	No
5	Mask	N95 or FFP2	N95 or FFP2	N95 or FFP2
6	Face cover	Visor	Visor	Visor
7	Gloves	Only during patient care	Only during patient care	Only during patient care



General Instructions for Reuse of PPE

Discard PPE such as gloves, shoe covers, gown and leg overs as a biomedical waste into appropriate bin.



Reuse only N95, goggles and vizor in suspected-COVID areas. In COVID-19 areas, dispose these at end of the shift.



The background is a light blue and white illustration. It features four stylized people: a blonde woman on the left, a brown-haired woman next to her, a dark-haired woman, and a man on the right wearing a white face mask. They are all wearing teal-colored scrubs. Above them is a large teal shield with a white virus particle in the center. The scene is decorated with various geometric shapes like circles and dots in shades of blue and teal.

Training

For Everyone!



Training & Education

**Common training
material**

**Relevant training (job
cards) by respective
departments**



Use the “FACE”
Make it job specific!



Job-Specific “FACE” Safety Cards

First contact

- Security
- Patient relations
- Patients
- Visitors
- Vendors

People contact without SD

- Ward boys/nursing assistants
- Housekeeping
- Phlebotomy techs
- Radiology techs
- Physiotherapy
- Nurses
- Doctors

People contact with SD

- Billing
- Pharmacy
- Dietary
- Medical records
- Admin
- Management

SD: Social Distancing





SkillsForMED

Patient Care Skills Training Centre



CORONA WARRIORS
THANK YOU

THE SOLUTION

ENTRAIN

Enhancing Training Ability In-House

**THE PERMANENT, COMPLETE
AND COST-EFFECTIVE SOLUTION**

RESULTS IN MEASURABLE
IMPROVEMENT OF YOUR
STAFF'S JOB PERFORMANCE

IMPROVES QUALITY OF
PATIENT CARE AND YOUR
HOSPITAL'S REPUTATION





SkillsForMED

Patient Care Skills Training Centre

WHAT COURSES DO WE OFFER?

GRADUATE
NURSES
UPSKILLING
PROGRAM

NURSING EDUCATOR
TRAINING of
TRAINERS (TOT)
PROGRAM

FUNDAMENTAL
SKILLS for ASSISTING
ACTIVITIES of DAILY
LIVING PROGRAM

NURSING CLINICAL
CARE EXTENDER
PROGRAM

SPECIALISED
NURSING COURSES
(Coming soon!)

Upskilling Healthcare for India!



MEET OUR TEAM



Dr. Arjun Rajagopalan
Mentor



Dr. Pari Rajavelu
CEO



Dr. Nithya Pari
Director



Ms. Chandralekha
Nursing Educator



Ms. Srividya
Instructional Designer



Ms. Harshitha
Content Developer

Upskilling Healthcare for India!





SkillsForMED

Patient Care Skills Training Centre

Upskilling healthcare for India!

**OFFERS FREE ONLINE
TRAINING FOR
COVID-19 HEROES!**

Courses and Target Audience

Healthcare Workers Safety

Target Audience: Doctors, hospital admin/owners

Nursing Safety

Target Audience: Nurse managers, nurses

Paramedics Safety

Target Audience: X-ray & lab techs, pharmacy, security & housekeeping staff, ward boys/girls

A-Z of PPE & Donning and Doffing Workshop



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