

# Infection Prevention & Control for COVID 19 at KGMU



**HOSPITAL INFECTION CONTROL COMMITTEE**

**King George's Medical University Lucknow, Uttar Pradesh 226003**

# Infection Prevention & Control

# Benefits of IPC



Protecting yourself



Protecting your patients



Protecting your family, community & environment



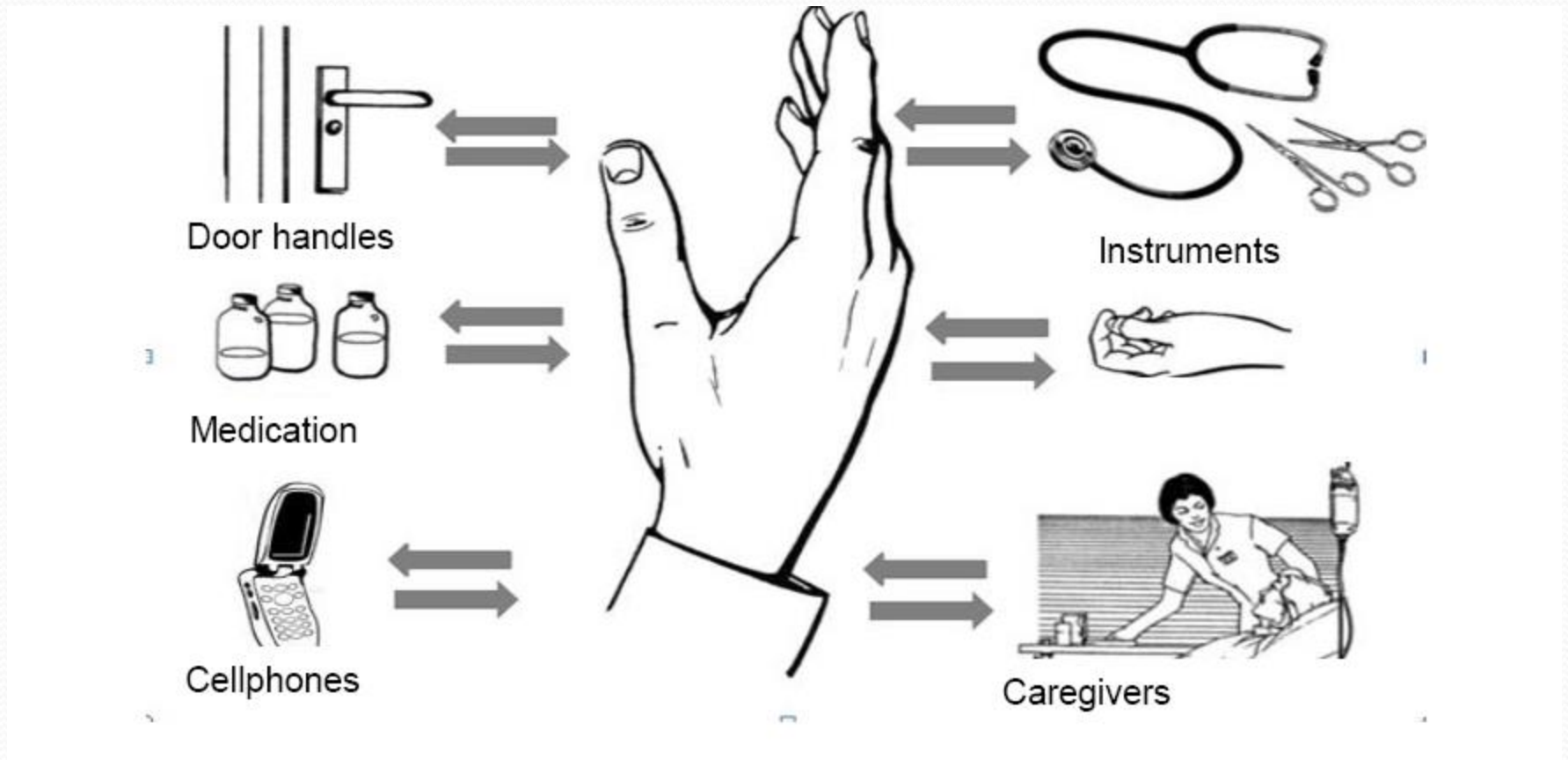
Apply standard precautions for all patients

# Elements of Standard Precautions

- Hand hygiene
- Respiratory hygiene
- PPE as per risk
- PPE donning and doffing
- Environment cleaning & disinfection
- Safe handling and cleaning of soiled linen/patient cloth
- Waste management

# Hand Hygiene

# WHY is hand hygiene required`?

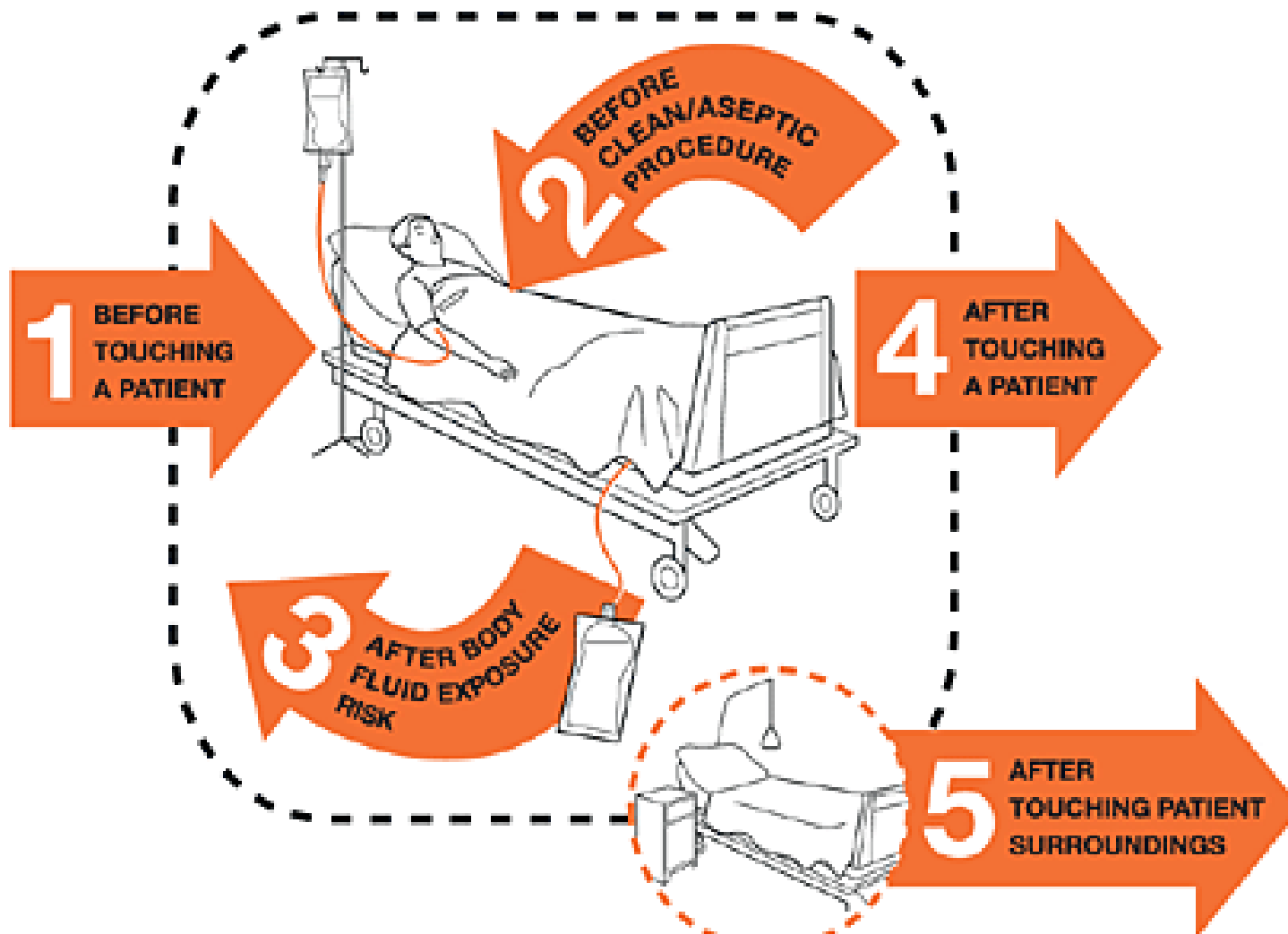


# Why do we need steps of hand hygiene?





# WHEN do we need to practice hand hygiene?



WHO guidelines on hand hygiene in health care, 2009

# WHICH: Hand wash or hand rub?

- Time required (for hand wash 40-60 secs vs. for hand rub ~20 secs)
- After hand wash- Need towels to wipe
- Location of washbasin- not at point of care
- **WHO recommends**-for all clinical situations, preferred use of hand rub if available, except when hands are soiled (Do Hand wash).

# Hand wash recommendations:

- Hand wash is a must
  - After Using PPE
  - After taking off the gloves
  - When hands are visibly contaminated with blood/body fluids
  - Patients with *Clostridium difficile* or enteroviral diarrhea
  - After using the toilet
  - Before and after eating

# Steps of hand rub/Hand wash

- Remove Jewellery before hand rub/hand wash
- Duration for hand rub: 15-20 seconds
- Duration for hand wash: 40-60 s
- Volume of hand sanitizer: ~ 3 ml
- Volume of soap (medicated): enough to produce lather
- **VERY IMPORTANT: Rub hands together until dry (for Hand rub)**
- Rub all surfaces thoroughly doing 7 steps.



STEP 1  
Rub palms together.



STEP 2  
Rub the back of both hands.



STEP 3  
Interlace fingers and rub hands together.



STEP 4  
Interlock fingers and rub the back of fingers of both hands



STEP 5  
Rub thumb in a rotating manner followed by the area between index finger and thumb for both hands.



STEP 6  
Rub fingertips on palm for both hands.



STEP 7  
Rub both wrists in a rotating manner.

**SUIMAN- K**

# Steps of hand rub/ hand wash

Hospital Infection Control Committee,  
KGMU, Lucknow, U.P

# When is hand hygiene a must?

- Before
  - touching any devices/equipment attached to patient
    - Indwelling catheter
    - Any other drain
    - Ventilation equipment
  - Drawing a specimen/placing IV line
- After
  - All above activities
  - After touching door/ almirah handles
  - Handling patient chart/monitor
  - Touching own nose/mouth/hair

# Respiratory hygiene

Avoid patient care areas if you have a respiratory infection. Stay home if possible.  
Wear a mask during hospital visits.



Wash hands with soap and water

# Personal Protective Equipment (PPE)



# PPE for use in health care for COVID-19

**Face Mask**



**Nose + mouth**

**N95 Mask**



**Nose + mouth**

**Face shield**



**Eyes + nose + mouth**

**Goggle**



**Eyes**

**Gown**



**Body**

**Apron**



**Body**

**Gloves**



**Hands**

**Head cover**

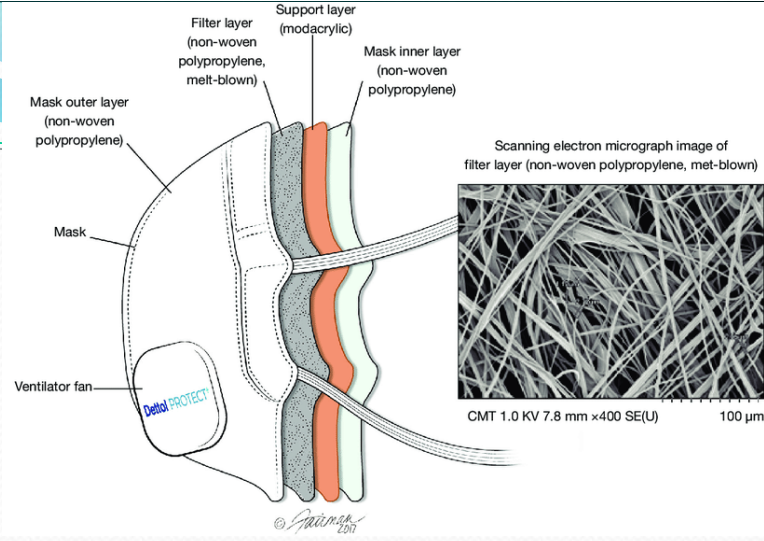


**Head + hair**

# Gloves: types and usage

- Gloves do reduce degree of contamination of hands (16 CFUs/min to 3 CFU/min of patient care activities)
- **Gloves** may be Non-sterile/ sterile, non-powder gloves (Latex or Nitrile).
- Gloves should always be inspected before use to check they are intact.
- **Caution:** Gloves do NOT mean complete protection. Small unnoticed tears may be present/ hand contamination can occur during glove removal.
- Hand hygiene **MUST** be practiced after glove removal

# Usage of Mask



- **Masks- Use-N 95**
  - When examining the known positive patient
  - When taking samples from suspect cases
  - When doing bacterial cultures of respiratory samples( from COVID-19 suspected cases) in biosafety cabinets.
  - When doing RNA extraction in biosafety cabinets

**(If N 95 is not available use triple layered surgical mask. Use triple layered for all other specimens)**

***Do not touch front portion of mask with hands while or after working***
- Mask alone is insufficient to provide the adequate level of protection and other equally relevant measures should be adopted – Hand hygiene

# GOWN

Cover all gown



- Single-use long-sleeved fluid-resistant or
- Reusable non-fluid-resistant gowns
- Plastic aprons (to be used on non-fluid-resistant gowns)
- Quality of gowns depends on-
  - Weight in grams per square metre (GSM value)- 40/70/95 GSM
  - Fabric strength test- tensility & strength test
  - Seam & joint test- to see if leakage can occur
  - Moisture vapour transmission test
  - Synthetic blood penetration test

# EYEWEAR

- Goggles fit the face immediately surrounding the eyes and form a protective seal around the eyes.
- This prevents aerosols from entering under or around the goggles.



# Head covers and shoe covers

- Shoe and head covers provide a barrier against possible exposure within a contaminated environment.
- They must be fluid resistant & preferably of the same material as gown.



High shoe covers

# COVID-19: Guidelines on rational use of Personal Protective Equipment

Source - Ministry of Health and Family Welfare, Directorate General of Health Services [Emergency Medical Relief]

Patient Care Activities /Area	Risk of Exposure	Triple Layered Mask	N-95 Mask	Gloves	Gown/Coverall	Goggles	Head Cover	Shoe cover
Triage Area in OPD	Moderate risk	X	✓	✓	X	X	X	X
Help desk/ Registration counter	Moderate risk	X	✓	✓	X	X	X	X
Temperature recording station	Moderate risk	X	✓	✓	X	X	X	X
Holding area/ waiting area	Moderate risk	X	✓	✓	X	X	X	X
Doctors chamber in OPD	Moderate risk	X	✓	✓	X	X	X	X
Clinical Management in Isolation rooms	Moderate risk	X	✓	✓	X	X	X	X
ICU facility / Critical Care Ward where aerosol generating procedures are done	High Risk	X	✓	✓	✓	✓	✓	✓
SARI ward - attending to severely ill patients of SARI	High Risk	X	✓	✓	✓	✓	✓	✓
Sample Collection/Sample testing for COVID-19	High Risk	X	✓	✓	✓	✓	✓	✓
Dead Body Packing	High Risk	X	✓	✓	✓	✓	✓	✓
Dead Body Transport	Moderate Risk	X	✓	✓	X	X	X	X
Mortuary - Dead Body Handling	Moderate Risk	X	✓	✓	X	X	X	X
Mortuary- While performing autopsy	High Risk	X	✓	✓	✓	✓	✓	✓
Sanitary staff	Moderate risk	X	✓	✓	X	X	X	X
CSSD/Laundry- Handling linen of COVID-19 patients	Moderate risk	X	✓	✓	X	X	X	X
Visitors attending OPD	Low Risk	✓	X	X	X	X	X	X
Visitors accompanying Patients in IP facility	Low Risk	✓	X	X	X	X	X	X
Supportive services-Administrative Financial Engineering Security, etc	NO risk	X	X	X	X	X	X	X

# Prerequisites before donning PPE

- Wear Scrub suit or ICU dress before donning
- Do a hand hygiene
- Select PPE of correct size
- Always put on PPE before contact with the COVID 19 patient.
- **Wear PPE only in designated DONNING area.**



# Points to remember for PPE

- Always remove PPE after completing the task
- Disinfect the PPE components before discarding
- Never reuse until instructed (Clean & disinfect before reuse)
- Change PPE if it has any defect or gets contaminated during procedure.
- Remove carefully to avoid contamination/infection.
- **Do NOT touch PPE components from front after using.**
- **Never touch your face or anybody part while using PPE.**

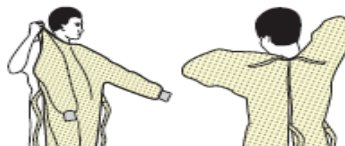
# Putting on (Donning) PPE

## SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

### 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



### 2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



### 3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



### 4. GLOVES

- Extend to cover wrist of isolation gown



## USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



## Donning PPE

1. Perform hand hygiene
2. Put on scrub suit/ICU dress
3. Put on protective pants
4. Both Shoe covers
5. Gown
6. Inner pair of gloves
7. Mask
8. Head cover
9. Eye cover
10. Face shield
11. Outer pair of gloves

*Wear PPE before suspect/positive patient care*

# Putting off (doffing) PPE

## HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

### 1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



### 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



### 3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

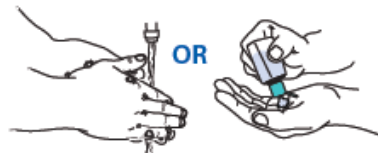


### 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — **DO NOT TOUCH!**
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



### 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE**



## Doffing PPE

1. Take out outer pair of gloves
2. Do hand hygiene over inner pair gloves with hand rub
3. Remove shoe cover (Disinfect with 70% alcohol)
4. Do hand hygiene on inner glove with hand rub
5. Remove face shield/eye cover (Disinfect with 70% alcohol)
6. Do hand hygiene again on inner gloves
7. Remove head gear (Disinfect with 70% alcohol)
8. Do hand hygiene again on inner pair gloves with hand rub
9. Remove gown (Disinfect with 70% alcohol)
10. Do hand hygiene again on inner gloves
11. Remove Mask (Disinfect with 70% alcohol)
12. Remove disposable pants (Disinfect with 70% alcohol)
13. Remove inner pair of gloves (Disinfect with 70% alcohol)
14. Do hand hygiene with hand rub

# Environment Cleaning

# Persistence of Coronaviruses on Surfaces



Source: *J. Hosp. Infect.* DOI: <https://doi.org/10.1016/j.jhin.2020.01.022>

Note: Coronavirus activity may be impacted by temperatures higher than 86°F (30°C). Authors also confirm that coronavirus may be effectively wiped away by household disinfectant. COVID-19 was NOT included in this study

# Environment & equipment surfaces to be cleaned and disinfected daily

- Bed rails,
- Bed mattress
- I.V pole
- Medicine trolley
- Monitors
- Ventilator tubings/ surfaces
- Keyboard
- Telephone receivers
- Door handles/knobs
- Stethoscope diaphragm/ other components
- Floor & walls
- Window sills
- Sister desk
- Table surfaces
- Almirah handles and surfaces
- Toilet seats and its surfaces (including floor and walls of toilets)
- Toilet taps/ health faucets

# Cleaning of small equipments

- Use 70% isopropyl alcohol:
  - Stethoscope
  - BP cuffs
  - Rubber stoppers of multi-dose vials
  - Small instrument surfaces
- All other surfaces in fever OPD- clean with detergent and water followed by disinfection with cotton cloth dipped in 0.5% hypochlorite.

# High-touch surfaces

- Surfaces that have frequent contact with hands
- Examples:
  - ✓ Almirah handles
  - ✓ Telephones, call bells, computer keyboards
  - ✓ Light switches, edges of privacy curtains
- Require more frequent cleaning and disinfection than minimal contact surfaces
- Cleaning and disinfection is to be done daily and more frequently if the risk of environmental contamination is higher.



# Low-touch surfaces

- Surfaces that have minimal contact with hands
- Examples:
  - ✓ Walls and ceilings
  - ✓ Mirrors and window sills
- Require cleaning on a regular (but not necessarily daily) basis
- When soiling or spills occur,
- Many low-touch surfaces may be cleaned on a periodic basis rather than a daily basis if they are also cleaned when visibly soiled

# ENVIRONMENT SURFACE CLEANING At Trauma emergency (includes Beds/ bed mattress /patient trolley/i.v poles/ medicine trolley/ventilator surfaces/ humidifiers/ monitors/ tubing surfaces

- Surface cleaning has to be done **three times in a day**.
- *Wear PPE before doing disinfection and cleaning procedure.*
- *First clean thoroughly with detergent and water with a clean cotton gauge piece. Let it dry (if the cloth becomes dirty enough, change the cloth)*
- *After drying disinfect with 0.5% hypochlorite or bleaching powder solution (Several wipes may be required to disinfect a surface)*
- *Metal surfaces: Disinfect with 0.5% hypochlorite or bleaching powder followed by disinfection with 70% alcohol after 5-10 minutes.*
- Floor and wall cleaning and disinfection are to be done with 7.35% H<sub>2</sub>O<sub>2</sub> and 0.23% peracetic acid.
- *Wash your hands with soap and water after doffing PPE.*

# OT at Trauma emergency

- Sterilise & disinfect the OT after every infected surgery/ COVID suspect/ positive patient surgery.
- Do fogging with H<sub>2</sub>O<sub>2</sub> based disinfectant (e.g 7.35% w/v H<sub>2</sub>O<sub>2</sub> and 0.23% w/v peracetic acid or H<sub>2</sub>O<sub>2</sub> with 0.01% w/v Silver nitrate IP, 10% w/v Hydrogen Peroxide)
- All surface needs to be disinfected properly with 0.5% hypochlorite.
- Walls and floor are to be disinfected with 0.5% hypochlorite/ bleaching powder solution.

## **ENVIRONMENT SURFACE CLEANING OF CORONA WARD (includes Beds/ bed mattress /patient trolley/i.v poles/ medicine trolley/ventilator surfaces/ humidifiers/ monitors/ tubing surfaces**

1. Surface cleaning has to be done three times in a day or whenever surfaces are visibly soiled or when contamination of the environment is suspected (such as after doing aerosol generating procedure).
2. *Wear PPE before doing disinfection and cleaning procedure.*
3. *First clean thoroughly with detergent and water with a clean cotton gauge piece. Let it dry (if the cloth becomes dirty enough, change the cloth)*
4. *After drying disinfect with H<sub>2</sub>O<sub>2</sub> wipes (Several wipes may be required to clean a surface)*
5. Floor and wall cleaning and disinfection are to be done with 7.35% H<sub>2</sub>O<sub>2</sub> and 0.23% peracetic acid. (Use 3 bucket system for floor cleaning)
6. *Discard gauge piece and PPE in yellow bins after surface disinfection.*
7. *Wash your hands with soap and water after doffing PPE.*

**By order**



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**Environment cleaning outside wards/isolation rooms: (include High/low touch surfaces of corridors, Lift, ramp)**

1. Cleaning is to be done thrice in a day or whenever surfaces are visibly soiled or when contamination of the environment is suspected (such as after patient sneeze/ cough on surfaces).
2. ***Wear PPE before doing disinfection and cleaning procedure.***
3. Clean with detergent and water followed by cleaning with 0.5% hypochlorite solution (prepare by mixing 1 part of 5-6% sodium hypochlorite to 9 part of water) or with bleaching powder solution (prepare by mixing 4 teaspoon in 1 litre of water).
4. For metal surfaces this should be followed by wiping with 70% isopropyl or ethyl alcohol.
5. Walls must be cleaned with detergent and water followed by disinfection with 0.5% hypochlorite solution or with bleaching powder solution.
6. Floor and surface cleaning and disinfection are to be done with 0.5% hypochlorite solution or with bleaching powder solution. (***Use 3 bucket system***)
7. Take off PPE and wash hands with soap and water.

**BY ORDER**



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**CAUTION**

**DO NOT TOUCH DOOR  
HANDLE/KNOB WITHOUT  
WEARING CLEAN GLOVES**

**BY ORDER**



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**CAUTION**

**DO NOT TOUCH DOOR  
HANDLE/KNOB WITHOUT  
SANATISING HANDS**

**BY ORDER**



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# CAUTION

KINDLY DISINFECT YOUR  
SHOE SOLE ON THE DOOR  
MAT CONTAINING 1%  
HYPOCHLORITE BEFORE  
GOING OUTSIDE

BY ORDER



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- PPE for Cleaners/ sweepers includes the following:
  - ✓ Impermeable plastic apron
  - ✓ Gum boots
  - ✓ Disposable mask and caps
  - ✓ Gloves
  - ✓ Eye protection wherever required



# Cleaning of floors

- Remove gross soil (visible to naked eye) prior to cleaning and disinfection
- If any needle or sharps are there in the floor segregate in puncture proof box safely
- Use separate mop for different areas (lab area, corridors, offices)
- **DO NOT USE BROOM/VACUUM CLEANERS**
- Use dust control mop prior to wet mop
- Do not lift dust mop off the floor use swivel motion, never shake the mop, minimize turbulence.

- Progress from the least soiled areas (low-touch) to the most soiled areas (high-touch) and from high surfaces to low surfaces
- Wash the mop under running water before doing wet mopping
- An area of 120 square feet to be mopped before re-dipping the mop in the solution
- Cleaning solution to be changed after cleaning an area of 240 square feet
- Change more frequently in heavily contaminated areas, when visibly soiled and immediately after cleaning blood and body fluid spills

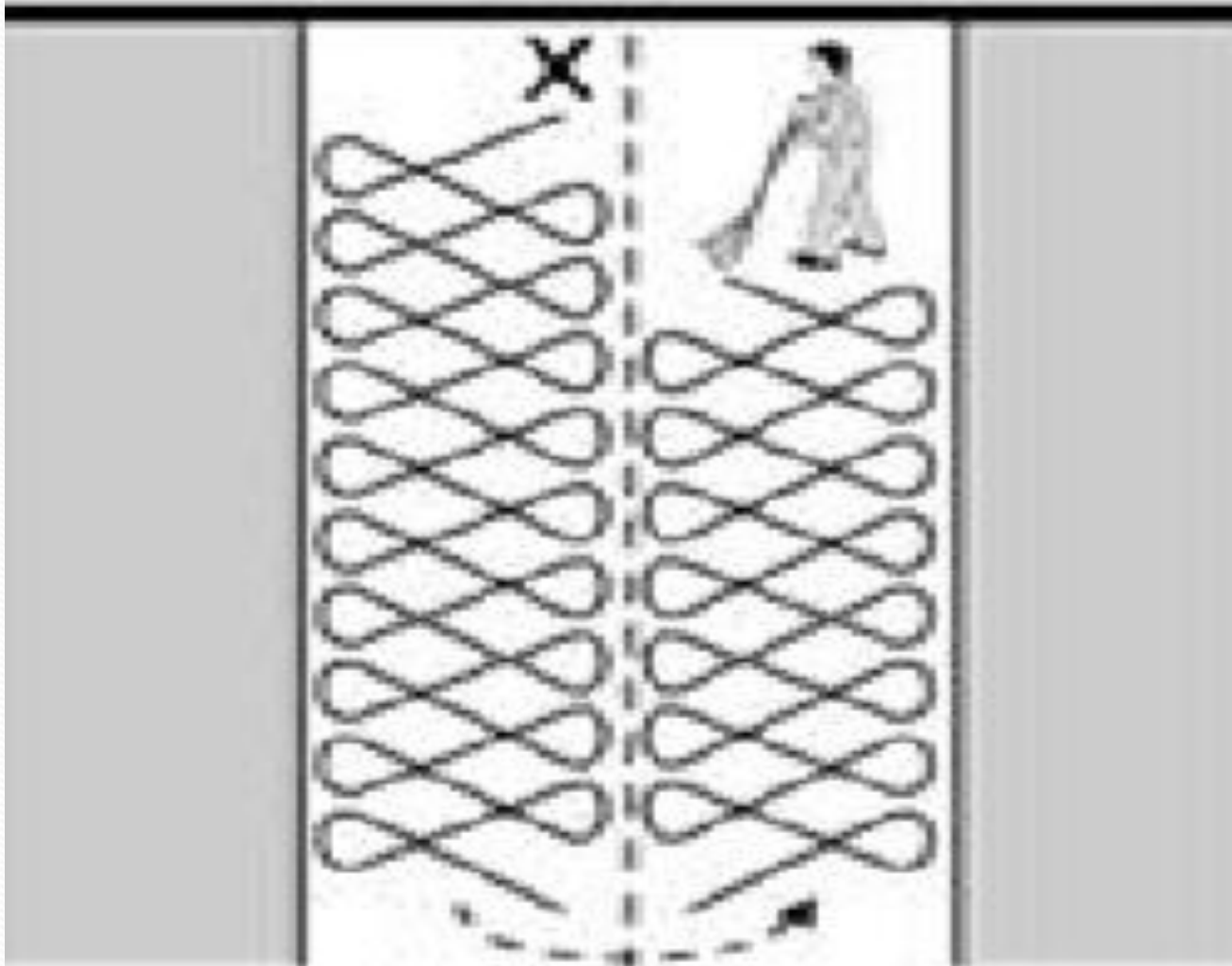
# Mopping Floors using Wet Mop and Bucket

- Prepare fresh cleaning solution
- Place 'wet floor' caution sign outside of room or area being mopped
- Divide the area into sections
- Immerse mop in cleaning solution and wring out
- Push mop around paying particular attention to removing soil from corners; avoid splashing walls or furniture

# Mopping Floors using Wet Mop and Bucket

- Use “figure of eight” strokes in open and wide spaces- overlapping each stroke; turn mop head over every five or six strokes
- For small spaces, start in the farthest corner of the room, drag the mop toward you, then push it away
- Work in straight, slightly overlapping lines and keep the mop head in full contact with the floor
- Repeat until entire floor is done
- Change the mop head as per protocol

# Figure of eight stroke technique for mopping



Reference: National Guidelines for Clean Hospitals; Ministry Of Health And Family Welfare Government Of India 2015

# Triple bucket system

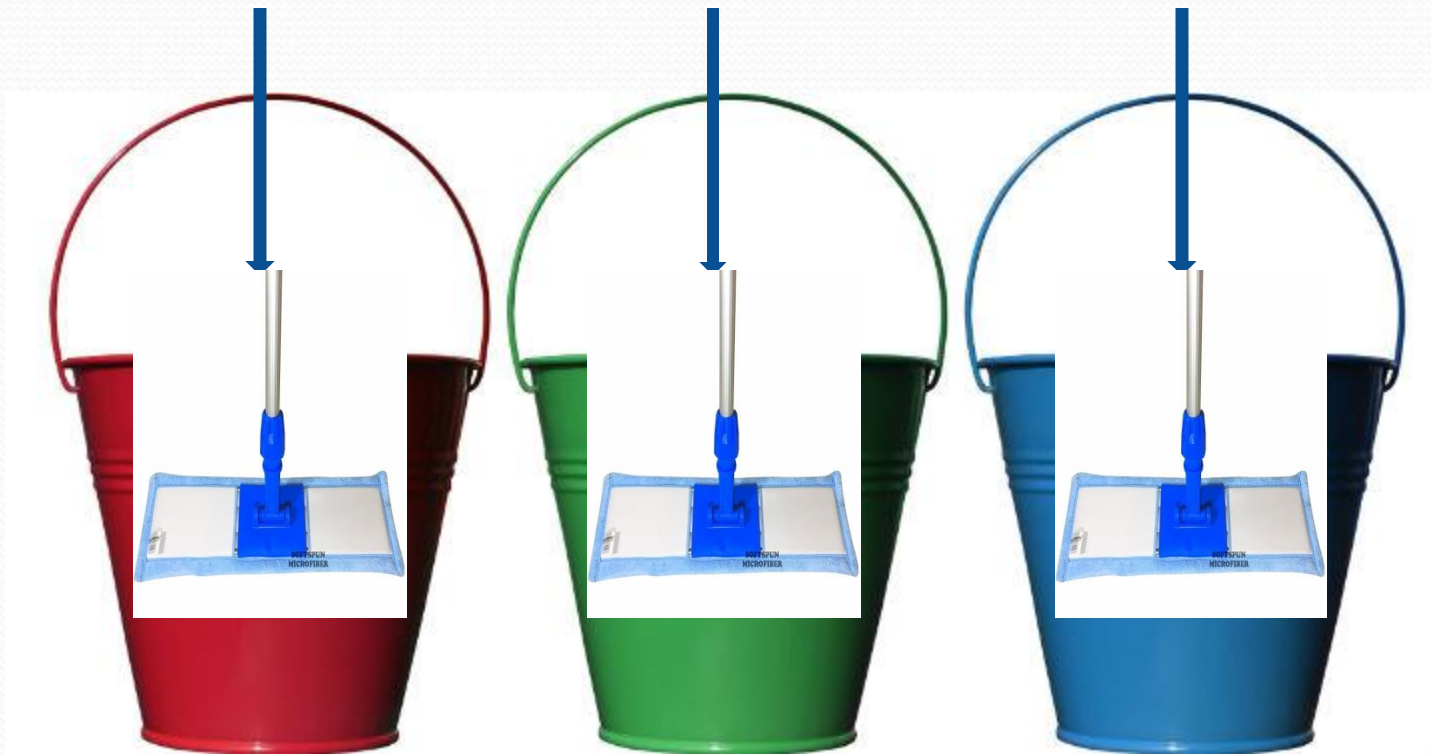
- Floor cleaning
- Procedure for washing, rinsing, and sanitizing where a different bucket and sponge or mop is used for each task
- **For washing:**
  - ✓ First bucket with water and detergent is used only for this purpose and will not be used for rinsing or sanitizing
- **For Rinsing:**
  - ✓ Second bucket with water only, will be used solely for this purpose.
- **A third bucket:**
  - ✓ Containing water and a disinfectant solution shall be used for disinfection only

# Mopping Floors using Wet Mop and Bucket

Water + detergent

Only water

Water + disinfectant





# Triple bucket system



# Disinfecting Ambulance

- Driver of ambulance must wear personal protective equipment (PPE)
- patient and attendant should be provided with triple-layer mask and gloves
- Disinfect all surfaces within ambulance with detergent and water followed by 1<sup>0</sup>% hypochlorite solution. (and all metal surfaces to be also disinfected with 70% alcohol after using hypochlorite)
- Disinfect the floor of ambulance with 1 % hypochlorite solution

# After cleaning

- If disposable pads are used- discard them in yellow bag
- After cleaning, wash the cloth with detergent and sun dry
- Launder mop heads daily
- All washed mop heads must be dried thoroughly before re-use.
- Clean sanitation cart and carts used to transport biomedical waste daily.
- All attachments of machines should be removed, emptied, cleaned and dried before storing.

Laundry/ cleaning and  
disinfection of isolation room  
after patient discharge

# Laundrying patient clothes

- Place soiled cloths in designated container for laundering
- Do not shake the clothes
- Patient clothes laundry is to be done by dipping in 0.5% hypochlorite solution for 30 minutes followed by washing with detergent and hot water (70 °C)
- Or the patient may dispose clothes in yellow bins for incineration

## **Safe handling and cleaning of soiled linen**

1. **Wear PPE before taking out dirty linen.**
2. **Do not shake the linen.**
3. Carry soiled linen in covered containers or yellow colour plastic bags to prevent spills and splashes, and confine the soiled linen to designated areas (interim storage area) until transported to the laundry.
4. These bags must be labelled with a sign of Corona Ward.
5. ***Wash hands with soap and water after discarding PPE.***

**BY ORDER**



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# Cleaning and disinfection of isolation room when patient is discharged

- To be done same as described above
- Fogging with 7.35 % H<sub>2</sub>O<sub>2</sub> + 0.23% Peroxyacetic acid is to be done.
- Ask the patient to take bath with soap and water and wear clean clothes.
- Launder or dispose patient old clothes as described previously.
- Patient belongings such as mobile/ laptop surfaces needs to be disinfected with accelerated H<sub>2</sub>O<sub>2</sub> wipes for 1 minute thoroughly. Followed by disinfection with spirit swab. Dry and handle them to patient.

# Biomedical Waste Disposal



# Yellow bag

- Anatomical waste – human, animal body parts & tissue
- Soiled waste – items contaminated with blood or body fluids – like dressings, cotton swabs and bags containing residual blood/blood components
- Chemical waste – chemicals used in production of biologicals
- Microbiology, biotechnology and other clinical laboratory waste (to be pre-treated by autoclaving before discarding):
  - Blood bags
  - Laboratory cultures
  - Stocks or specimens of microorganisms
  - Live or attenuated vaccines
  - Human and animal cell cultures
- Discarded linen contaminated with blood or body fluid including mask and gown

Gloves in Yellow  
at isolation ward only

All patient food waste  
at isolation ward

# Red Bag

- Contaminated recyclable waste
- Waste from disposable items:
  - Tubing and bottles
  - Intravenous tubes and sets
  - Catheters and urine bags
  - Syringes (without needles), vacutainers
  - Gloves
- Plastic petri-plates containing infectious material to be pre-treated by autoclaving and discarded in red bags

All Plastic waste (food plastic /water bottles at quarantine/isolation ward

# Translucent white box

- Puncture, leak and tamper proof
- Sharps waste (used, discarded and contaminated metal sharps)
  - Needles
  - Syringes with fixed needles
  - Needles from needle tip cutter or burner
  - Scalpels
  - Blades
- Any other contaminated sharps

# Blue box

- Or containers with blue coloured marking
- Puncture and leak proof boxes
- **Glassware**
  - Broken or discarded glass including medicine vials & ampoules (except those contaminated with cytotoxic waste)
  - Broken or discarded contaminated glass

# Black Bin

- Only in quarantine area/ office area/ trauma emergency area.
- Treat the non infected routine waste as general solid waste and dispose to local municipal as per SWM rule, 2016.

# Labelling of Waste

- All waste has to be in double layered medical waste bags.
- Label the waste as COVID-19 waste
- Spray 0.5% hypochlorite to decontaminate outer surface

# Spill management

- Worker assigned to clean the spill should wear gloves and other personal protective equipment
- Most of the organic matter of the spill to be removed with absorbent material
- Surface to be cleaned to remove residual organic matter
- Use disinfectant: hypochlorite
  - 1% for small spills
  - 10% for large spills

# Spill Management

- Cover the spill with absorbent cotton or a cloth.
- Disinfect the surface with 10% bleach for 10-15 minutes.
- Now use cloth or cotton to absorb the spill
- Collect the spill with scoop and discard it in the yellow/ red bag.
- Finally mop with detergent and water.



# Hypochlorite solution and Bleach preparation for floor & wall disinfection

- **1% Bleaching powder solution-**
  - Prepare 33 gms of bleaching powder (bleaching powder with 30% strength) in 1 litre of water.
- **1% Hypochlorite solution-** For instrument and bench and small spill
  - Prepare by mixing 200 ml (of 5% available chlorine hypochlorite ) in 800 ml of water.

# Hypochlorite solution and Bleach preparation for surface disinfection

- **0.5% Bleaching powder solution-** For instrument and bench and small spill
  - Prepare 16 gms of bleaching powder (bleaching powder with 30% strength) in 1 litre of water.
- **0.5% Hypochlorite solution-** For instrument and bench and small spill
  - Prepare by mixing 100 ml (of 5% available chlorine hypochlorite ) in 900 ml of water.

# Handling dead bodies

- Fill all openings of dead body with cotton balls or gauze dipped in 1% hypochlorite.
- Remove all tubings and discard in appropriate bin.
- Wrap the body with double layer cloth soaked in 1% hypochlorite
- Wrap again in leak proof wrapping sheet.
- Disinfect the surface with 1% hypochlorite.
- Transfer the body through separate passage to mortuary. Wear PPE while transporting.

THANK YOU  
WE WILL FIGHT  
COVID-19 TOGETHER



Hospital Infection Control Committee,  
KGMU, Lucknow, U.P