

**Infection Prevention Control Strategy for COVID 19 at KGMU for Infectious disease ward and other areas wherever such patients are received and treated**

Apply standard precautions for all patients. Elements of Standard Precautions are

- i. Hand hygiene
- ii. Respiratory hygiene
- iii. PPE donning and doffing
- iv. Environment cleaning
- v. Safe handling and cleaning of soiled linen
- vi. Waste management

**These elements are to be used for ALL patients at ALL times regardless of suspected or confirmed status of the patient. Limit the number of HCW, visitors, and family members who are in contact with the patient.**

**Hand hygiene:** Hand hygiene should be done as per WHO “5 Moments”, and before PPE and after removing PPE. Use 0.5% w/v Chlorhexidine gluconate and 70% v/v ethyl alcohol for hand rub and 2% w/w Chlorhexidine based hand wash for washing hands with soap and water. **Avoid touching eyes, nose and mouth.**

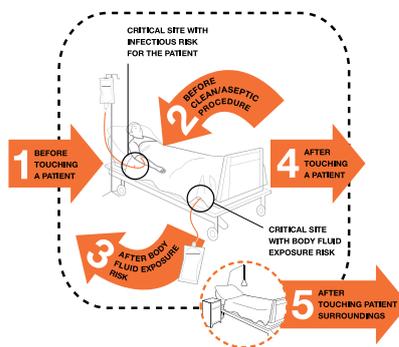
**How to Handrub?**

**RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED**

**⌚ Duration of the entire procedure: 20-30 seconds**



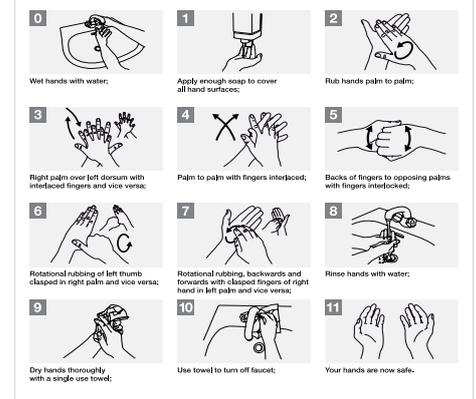
**WHO 5 moments of Hand hygiene**



**HOW TO HANDWASH?**

**WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB**

**⌚ Duration of the entire procedure: 40-60 seconds**



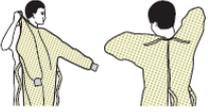
**Cleaning staff and others (including doctors/nurses) should clean hands often, including immediately after removing gloves and after contact with ill person, by washing hands with soap and water for 20 seconds.**

**Respiratory hygiene:**



Minimise personnel during aerosol generating procedures (e.g. Tracheal intubation, Non-invasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy, open suctioning of respiratory tract)

**PPE donning & doffing:** Use N 95 masks, goggles, gloves and other components of PPE as described below

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)	HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1
<p>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.</p> <p><b>1. GOWN</b></p> <ul style="list-style-type: none"> <li>Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back</li> <li>Fasten in back of neck and waist</li> </ul> 	<p>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:</p> <p><b>1. GLOVES</b></p> <ul style="list-style-type: none"> <li>Outside of gloves are contaminated!</li> <li>If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer</li> <li>Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove</li> <li>Hold removed glove in gloved hand</li> <li>Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove</li> <li>Discard gloves in a waste container</li> </ul> 
<p><b>2. MASK OR RESPIRATOR</b></p> <ul style="list-style-type: none"> <li>Secure ties or elastic bands at middle of head and neck</li> <li>Fit flexible band to nose bridge</li> <li>Fit snug to face and below chin</li> <li>Fit-check respirator</li> </ul> 	<p><b>2. GOGGLES OR FACE SHIELD</b></p> <ul style="list-style-type: none"> <li>Outside of goggles or face shield are contaminated!</li> <li>If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer</li> <li>Remove goggles or face shield from the back by lifting head band or ear pieces</li> <li>If the arm is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container</li> </ul> 
<p><b>3. GOGGLES OR FACE SHIELD</b></p> <ul style="list-style-type: none"> <li>Place over face and eyes and adjust to fit</li> </ul> 	<p><b>3. GOWN</b></p> <ul style="list-style-type: none"> <li>Gown front and sleeves are contaminated!</li> <li>If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer</li> <li>Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties</li> <li>Pull gown away from neck and shoulders, touching inside of gown only</li> <li>Turn gown inside out</li> <li>Fold or roll into a bundle and discard in a waste container</li> </ul> 
<p><b>4. GLOVES</b></p> <ul style="list-style-type: none"> <li>Extend to cover wrist of isolation gown</li> </ul> 	<p><b>4. MASK OR RESPIRATOR</b></p> <ul style="list-style-type: none"> <li>Front of mask/respirator is contaminated — DO NOT TOUCH!</li> <li>If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer</li> <li>Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front</li> <li>Discard in a waste container</li> </ul> 
<p><b>USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION</b></p> <ul style="list-style-type: none"> <li>Keep hands away from face</li> <li>Limit surfaces touched</li> <li>Change gloves when torn or heavily contaminated</li> <li>Perform hand hygiene</li> </ul> 	<p><b>PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE</b></p>  

PPE is mandatory for the staff treating COVID 19 patients and for anyone who is entering the premises where such patients are being treated. Masks are to be worn by the patient, their attendants as well as staff.

***Discard PPE in proper bins after use. Wash hands with soap and water after discarding PPE.***

**Environment cleaning within wards/ isolation rooms: Wear PPE before doing disinfection and cleaning procedure.**

It 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 doing aerosol generating procedure).

**Floor and surface 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**)

**Toilet/bathroom cleaning** is to be done by detergent and water followed by cleaning with Hydrogen peroxide enhanced action formulation (HP- EAF) 4.5%.

**Bed surface/ mattress/ bed rails/ i.v poles/medicine trolley/door knobs and handles/light switches** etc. are to be cleaned with detergent and water followed by accelerated H<sub>2</sub>O<sub>2</sub> wipes.

**Fogging of the room/corridors** is to be done with 7.35% H<sub>2</sub>O<sub>2</sub> and 0.23% peracetic acid after it is vacated by the patient.

**Spill management:** Cover the spill with absorbent cotton or a cloth. Pour bleach (For small spill- use 1% hypochlorite; For Large spill- use 10% hypochlorite ) on the absorbent covering spill for 10-15 minutes. Discard it in the yellow/ red bag with the help of scoop. Finally do the mopping with detergent and water.

***Wash hands with soap and water after cleaning/ spill management.***

**Environment cleaning outside wards/isolation rooms:** (include High/low touch surfaces of corridors, Lift, ramp) ***Wear PPE before doing disinfection and cleaning procedure.***

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).

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). For metal surfaces this should be followed by wiping with 70% isopropyl or ethyl alcohol.

***Wash hands with soap and water after cleaning/ spill management.***

***Ensure 3ft (1 metre) separation between patient bed and encourage coughing patient to sit 3 feet away from others in common waiting areas.***

**Safe handling and cleaning of soiled linen:** ***Wear PPE before taking out dirty linen. Do not shake the linen.*** Carry soiled linen in covered containers or plastic bags to prevent spills and splashes, and confine the soiled linen to designated areas (interim storage area) until transported to the laundry. These bags must be labelled with a sign of biohazard. ***Wash hands with soap and water after discarding PPE.***

**Waste management:** Untreated waste should not be mixed with other waste. Follow BMW rules 2016, amended 2018 and 2019.

**References:**

1. Infection Control Manual of KGMU: Version 2
2. Environment cleaning and Disinfection Recommendations for COVID-19. CDC
3. Coronavirus (COVID-19) Infection prevention & Control. WHO