

**Circular H...56../2020**

### **WCGH CLEANING AND DISINFECTANT GUIDELINE FOR COVID-19 INFECTIONS**

This guideline serves to provide recommendations on the cleaning and disinfection of rooms or areas occupied by those persons with suspected or with confirmed COVID-19 infection. This includes hospital as well as primary health care facilities. The guideline is aimed at limiting the survival of SARS-CoV-2 in key environments.

The transmission - based precautions include standard precautions, droplet precautions and contact precautions and airborne precautions for aerosol-generating procedures. The appropriate signage must be signposted to alert all staff to the precautions to be taken within a room or space. See attached poster (**Annexure 1**)

<b>DEFINITIONS</b>	
<b>Cleaning</b>	Cleaning (in the healthcare setting) refers to the removal of visible dirt, dust and debris. Cleaning alone results in large reductions in environmental contamination, including the removal of many pathogens.
<b>Disinfection</b>	Killing or destruction of most but not all disease-producing micro-organisms
<b>Decontamination</b>	Includes some or all of the following steps: <ul style="list-style-type: none"> <li>• Cleaning</li> <li>• Disinfection</li> <li>• Sterilization (destruction of all micro-organisms).</li> </ul>
<b>Donning</b>	Refers to putting on work clothes, gear, and personal Protective Equipment (PPE).
<b>Doffing</b>	Refers to removing of work clothes, gear and personal Protective Equipment (PPE).
<b>Personal Protective Equipment (PPE)</b>	Personal protective equipment for healthcare personnel refers to a variety of barriers used alone or in combination to protect mucous membranes, airways, skin and clothing from contact with infectious agents.

<b>PERSONAL PROTECTIVE EQUIPMENT (PPE)</b>	
<p>Do not wear PPE if not required.</p> <p>Unnecessary and wasteful usage of PPE will create a shortage and will lead to a shortage of PPE for frontline staff who are heavily exposed to Covid-19 infection</p> <p><b>Appropriate PPE should be selected based on the anticipated level of exposure and type of pathogen</b></p> <p><b>PPE for cleaning staff will be decided at a local level. Please refer to WCGH: PPE SOP attached (Annexure 2)</b></p>	
<b>LIST OF AVAILABLE PPE</b>	
<ul style="list-style-type: none"> <li>• Long rubber household gloves</li> <li>• Gown / Apron</li> <li>• Goggles or Face shield / Visor</li> <li>• Surgical mask</li> <li>• Surgical scrubs</li> </ul>	
<b>DONNING OF PPE (in the designated donning area) in the following sequence:</b>	
<ol style="list-style-type: none"> <li>1. Wash or disinfect hands. If visibly soiled, use soap and water</li> <li>2. Ensure hands are dried thoroughly</li> <li>3. Put on gown / apron</li> <li>4. Put on the surgical mask / N95 respirator</li> <li>5. Put on eye cover</li> <li>6. Put on gloves</li> </ol> <p>See attached donning and doffing poster (Annexure 3)</p>	
<b>DOFFING OF PPE (in the designated doffing area) in the following sequence:</b>	
<ol style="list-style-type: none"> <li>1. Ensure that a healthcare risk waste receptacle is available, and all disposable items are managed as healthcare risk waste</li> <li>2. Practise Hand hygiene</li> <li>3. Remove gloves and discard as healthcare risk waste</li> <li>4. Remove apron / gown</li> <li>5. Remove eye cover</li> <li>6. Remove the surgical mask or N95 respirator</li> <li>7. Practise Hand hygiene</li> </ol>	
<b>ROUTINE/DAILY ENVIRONMENTAL CLEANING</b>	
<p>Cleaning is an essential part of disinfection. Organic matter can inactivate many disinfectants. Cleaning reduces the soil load, allowing the disinfectant to work.</p> <p>Removal of germs such as the virus that causes COVID-19 requires thorough cleaning followed by disinfection</p>	
<b>PROCESS</b>	
<ol style="list-style-type: none"> <li>1. Don appropriate PPE</li> <li>2. Clean and disinfect the general patient area of the facility twice daily (once per shift) with appropriate schedule and program (waiting rooms, wards, triage and testing centres, etc.)</li> <li>3. Clean and disinfect Intensive Care Units 6 hourly</li> <li>4. In triage and testing units, chairs are cleaned/disinfected between each patient use</li> <li>5. Sampling booths are cleaned/disinfected between each patient use</li> </ol>	

6.	Areas should be thoroughly cleaned with soap and water and then wiped with surface disinfectant chlorine based or hypochlorite solution 1000ppm/0.1% (e.g. 4 sachets of biocide 6g packet to 9L of water or 70% alcohol surface cleaner or disinfectant wipes
7.	Focus on high touch surfaces, from cleanest to dirtiest, from the highest to the lowest, end around the bed
8.	Clean and disinfect the "patient zone" bed rails, bedside cabinet, over-bed trolley, nurse call system and clinical equipment around the patient – IVACs, monitors, ventilators, oxygen saturation monitors, chairs, etc. before and after touching; wipe with disinfectant cloth or wash with soap and water first if visibly soiled and thereafter disinfectant cloth
9.	Clean and disinfect frequently touched surfaces (e.g. tables, desks, taps, sinks, telephones and electronics) with disinfectant wipe/solution every <b>30 - 60 minutes</b> depending on frequency of use
10.	Clean and disinfect toilets every 3 hours

### TERMINAL/DEEP CLEANING

Terminal/deep cleaning is a complete and enhanced cleaning procedure that decontaminates an area following the discharge or transfer of a patient with a communicable disease.

Terminal cleaning requires both thorough cleaning and disinfection for environmental decontamination.

### PROCESS

1. Don appropriate PPE
2. Remove and discard all unused consumables and personal equipment (PPE) from the room
3. Remove all linen in the room
4. Remove all waste from the room
5. Remove all medical equipment and items used by patients from the space (drip stands, etc)
6. Wash all surfaces, furniture and fittings (walls to height of 2m /partitioning to hand height, gabbler rails, etc.) with detergent e.g. Paragon or soap and water
7. Clean all surfaces of bed and mattress (including bed frames, mattress, pillows and wheels (carbolize the bed)
8. Mop the floor
9. All the above surfaces must then be disinfected with a chlorine based or hypochlorite solution 1000ppm (e.g. 4 sachets of biocide 6g packet to 9L of water or 70% alcohol surface disinfectant) to complete the terminal/deep clean
10. Ensure that all used medical equipment is appropriately cleaned and stored
11. Cleaning of string mops must be done with e.g. Paragon and then biocide before storing
12. Ensure that the room/space is dry before the next patient is admitted

### PATIENT TROLLEYS AND WHEELCHAIRS

1. Trolleys and wheelchairs for transporting patients must be deep cleaned before a shift starts
2. The deep clean includes the mattress, frame, cot sides, stainless steel tops, wheels and bottom of the trolley - this must be washed with detergent (e.g. soap and water) thereafter it must be wiped with a hypochlorite solution (e.g. 70% alcohol or disinfectant wipes).
3. This cleaning process must be done three times a day.
4. All linen must be removed from the trolleys after each patient contact
5. Visible stains/blood stains must be washed off with soap and water first and then wiped with hypochlorite solution 1000ppm/0.1% to disinfect the patient trolley and wheelchair.

6.	Before the patient trolley is used to transport a patient the cot sides, mattress, stainless steel top and handles must be wiped with a 70% alcohol surface disinfectant or disinfectant wipes
7.	After a patient has been transported the patient trolley must be wiped off with a 70% alcohol surface disinfectant or disinfectant wipes (mattress, stainless steel top, side cots, bottom of the trolley as well as the wheels)
<b>CLEANING EQUIPMENT REQUIRED</b>	
<ul style="list-style-type: none"> <li>• Janitor trolley / or two-way bucket system</li> <li>• Yellow cloth for patient areas, red cloth for toilets and sluice rooms, green cloths for admin and non-clinical spaces, white cloths to dust offices</li> <li>• Detergent</li> <li>• Disinfectant</li> <li>• Mops (colour coded) for different spaces</li> <li>• Carbolizing trolley for cleaning beds and lockers etc.</li> <li>• Disinfectant wipes</li> </ul> <p>See correct use of chemical poster (Annexure 5)</p>	
<b>HAND HYGIENE</b>	
<b>Hand hygiene should be practised:</b>	
<ul style="list-style-type: none"> <li>• Before and after removal of PPE</li> <li>• Touching of surfaces within a Covid-19 environment without gloves</li> <li>• Before and after eating</li> <li>• After blowing your nose, coughing into tissues, etc.</li> <li>• Before and after going to the toilet</li> <li>• Change gloves if contaminated, damaged or on exit of patient area</li> <li>• Wash hands with liquid soap and water when visibly soiled, thereafter alcohol-based hand rub can be used</li> <li>• Ensure availability of paper towel to dry hands appropriately</li> </ul> <p>For handwashing and alcohol rub techniques see attached posters (Annexure 4 &amp;5)</p>	
<b>PRECAUTIONS FOR USE OF DISINFECTANTS</b>	
<ul style="list-style-type: none"> <li>• Make sure there is good ventilation during the use of the product when cleaning. Open available windows or doors to the outside</li> <li>• Always use disinfectants according to the label instructions</li> <li>• Use the safety equipment specified on the label.</li> <li>• Even if not required by the label wear disposable gloves for cleaning.</li> <li>• Always practice hand hygiene immediately after removing your gloves</li> <li>• Wear eye protection (goggles) if spraying cleaning chemicals above shoulder height</li> <li>• For concentrated products requiring dilution, do not use more of the product than is specified on the label.</li> <li>• Using more product does not improve cleaning, but it may cause problems for the user and room occupants</li> </ul>	
<b>TRAINING OF STAFF</b>	
<p>Cleaning staff should be adequately trained to ensure they understand the procedure, use appropriate personal protective equipment, and minimise occupational health and safety risks to persons.</p>	

<b>REQUIREMENTS</b>	
<ul style="list-style-type: none"> <li>• Appropriate PPE</li> <li>• Donning and doffing of PPE</li> <li>• Hand hygiene</li> <li>• Cleaning measures &amp; storage of equipment</li> <li>• Removing gloves</li> </ul>	
Training register must be kept of all staff receiving training.	
<b>ROLE OF THE NURSE</b>	
Clean the patient zone before and after rendering patient care	
<b>ROLE OF ADMINISTRATION STAFF</b>	
Clean the desk, telephone and electronic devices after use/ every 30 – 60 minutes	
<b>ROLE OF CLEANING STAFF</b>	
Routine and terminal cleaning of all areas	
<b>ROLE OF IPC</b>	
<ul style="list-style-type: none"> <li>• Monitoring and oversight of cleaning practises and appropriate use of detergents and disinfectant</li> <li>• Staff wearing PPE appropriately</li> <li>• Education and training</li> <li>• Ensure that PPE is available in the areas</li> </ul>	
<b>INFORMATION FOR CLEANING STAFF</b>	
<ul style="list-style-type: none"> <li>• Protecting yourself is YOUR responsibility, wear your PPE appropriately</li> <li>• Practice social distancing ALL the time</li> <li>• Cleaning staff should be informed to avoid touching their face, especially their mouth, nose, and eyes when cleaning</li> <li>• Gloves should be discarded after each cleaning, unless using reusable household gloves which should remain in that area and be dedicated for cleaning and disinfection of surfaces/equipment for COVID-19 and should not be used for other purposes.</li> <li>• All reusable gloves should be cleaned after use with soap and water</li> <li>• Cover your mouth with a tissue paper when coughing or sneezing</li> <li>• Avoid touching your face with dirty hands at all times.</li> <li>• If you have to, be sure to wash your hands with soap and water thoroughly first.</li> <li>• Do not share food utensils, since bacteria can be transmitted onto knives, forks, spoons and straws</li> <li>• Only use clean utensils and do not share drinks.</li> </ul>	



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DATE: 25 April 2020

**List of Annexures:**

- Annexure 1: COVID-19 Isolation area droplet and Contact precautions;
- Annexure 2: Correct PPE use for COVID-19;
- Annexure 3: Quick reference guide on how to put on and take off PPE for COVID-19;
- Annexure 4: How to handwash;
- Annexure 5: How to handrub;
- Annexure 6: Correct use of Chemicals.

**Reference documents:**

- Environmental cleaning and disinfection principles – Version 1 (10/03/2020) Coronavirus disease (COVID-19).  
<https://www.health.gov.au/sites/default/files/documents/2020/03/environmental-cleaning-and-disinfection-principles-for-covid-19.pdf>
- National Department of Health March 2020, National Practical Manual for the Implementation of the National IPC Strategic Framework.
- National Department of Health April 2020, COVID-19 Disease: Infection Prevention and Control Guidelines. Version 1.
- National Department of Health 2020 Droplet precautions poster
- Western Cape Government: Health. Groote Schuur Hospital Terminal Cleaning Guideline
- Western Cape Government: Health. Paarl Hospital Environmental Cleaning Plan for Covid-19 Isolation rooms
- Western Cape Government PPE Plan 25 March 2020
- Western Cape Government: Health. Tygerberg Hospital Covid-19 SOP
- Western Cape Government: Health Donning and Doffing poster
- Western Cape Government: Health. Tygerberg Hospital. correct use of disinfectant poster
- World Health Organization Hand Hygiene poster
- World Health Organization Alcohol hand rub poster



# COVID-19 isolation area

## droplet + contact precautions

All persons		Nurses, Doctors, Clinical staff		
				
Perform hand hygiene	Wear a surgical mask	Wear gloves	Wear an apron or gown	Wear eye protection



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## CORRECT PPE USE FOR COVID-19

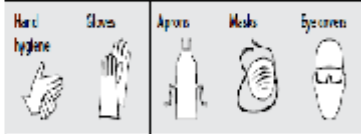
### How is COVID-19 transmitted?

COVID-19 is transmitted by three main routes:

Route	How?	Am I safe?
Contact	Touching contaminated persons or surfaces and then touching the eyes, nose or mouth	If you wash your hands, or use alcohol hand rub, your risk is low.
Droplets	Someone coughs or sneezes on you, and you inhale the droplets	If you are >1.5m from the person, your risk is low
Aerosol	You breathe in aerosols containing the virus while nearby a COVID-19 patient undergoing an aerosol-generating procedure (tracheal intubation, CPR, open suctioning, bronchoscopy, etc.)	If you are not in the vicinity of someone doing the procedure, your risk is low

### Who should wear PPE?

Persons who have to work in areas where they are required to touch COVID-19 patients or be closer than 1.5m from COVID-19 patients or perform aerosol-generating procedures on COVID-19, must wear appropriate PPE. In summary, the following principles will apply:

All areas NOT admitting CoVID-19 patients	PPE for patient care in CoVID-19 triage areas and isolation wards	PPE for aerosol-generating procedures with CoVID-19 patients
<p><b>PPE is NOT NEEDED</b> if you are not in direct contact or caring for patients with suspected or confirmed CoVID-19. Do NOT use PPE if not indicated as there is a global shortage.</p>	<ul style="list-style-type: none"> <li>✓ non-sterile gloves</li> <li>✓ eye shield or goggles</li> <li>✓ <u>plastic apron</u></li> <li>✓ <u>surgical mask</u></li> </ul> 	<ul style="list-style-type: none"> <li>✓ non-sterile gloves</li> <li>✓ eye shield or goggles</li> <li>✓ a <u>fluid-resistant gown</u></li> <li>✓ a well-fitted <u>N95 respirator</u> for the following procedures: tracheal intubation, CPR, open suctioning, non-invasive ventilation, tracheotomy, bronchoscopy and CoVID-19 specimen collection, among others.</li> </ul>

### Why you should NOT wear PPE if it is not required












Unnecessary and wasteful usage of PPE will create a shortage and will lead to exposure of frontline staff members who are heavily exposed to COVID-19 infection. Inappropriately wearing PPE may increase your risk of becoming infected as:

- touching your face with contaminated gloves can transmit the virus
- touching your face to fit or adjust a mask can transmit the virus



## Quick reference guide on how to put on and take off PPE for COVID-19

**SELECT the correct PPE for the type of care provided or procedure performed**

Direct care of patients with COVID-19 (Non-aerosol generating)	Aerosol-generating procedure on patients with COVID-19
<ul style="list-style-type: none"> <li>✓ non-sterile gloves</li> <li>✓ apron</li> <li>✓ eye shield or goggles</li> <li>✓ surgical mask</li> </ul>	<ul style="list-style-type: none"> <li>✓ non-sterile gloves</li> <li>✓ gown / apron</li> <li>✓ eye shield or goggles</li> <li>✓ <b>N95 respirator</b></li> </ul>
<b>DONNING ORDER FOR PUTTING ON PPE</b>	<b>DOFFING ORDER FOR TAKING OFF PPE</b>
<p>hand hygiene (soap or alcohol handrub)</p>  <p>put on apron or gown</p>  <p>put on surgical mask or N95 respirator</p>  <p>put on eye cover</p>  <p>put on non-sterile gloves</p> 	<p>hand hygiene (soap or alcohol handrub)</p>  <p>remove gloves</p>  <p>remove gown / apron</p>  <p>remove eye cover</p>  <p>remove N95 respirator</p>  <p>hand hygiene (soap or alcohol handrub)</p> 
<p><b>PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE</b></p>	

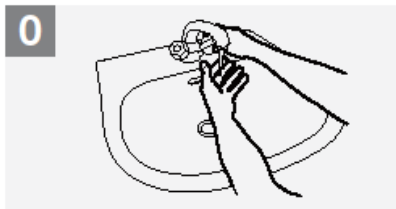
26 March 2020

# How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB



Duration of the entire procedure: 40-60 seconds



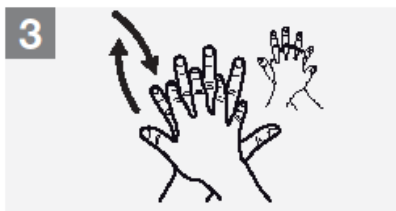
Wet hands with water;



Apply enough soap to cover all hand surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



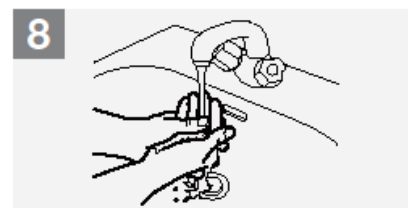
Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



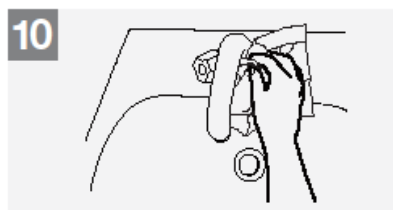
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Rinse hands with water;



Dry hands thoroughly with a single use towel;



Use towel to turn off faucet;



Your hands are now safe.



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**SAVE LIVES**  
**Clean Your Hands**

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# How to Handrub?

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



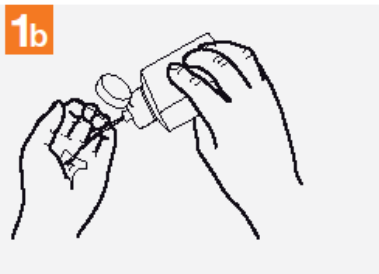
**Duration of the entire procedure: 20-30 seconds**

**1a**



Apply a palmful of the product in a cupped hand, covering all surfaces;

**1b**

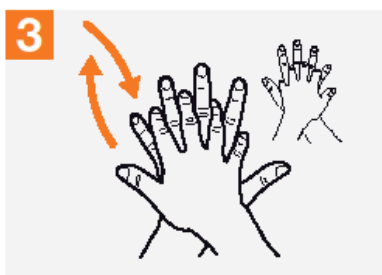


**2**



Rub hands palm to palm;

**3**



Right palm over left dorsum with interlaced fingers and vice versa;

**4**



Palm to palm with fingers interlaced;

**5**



Backs of fingers to opposing palms with fingers interlocked;

**6**



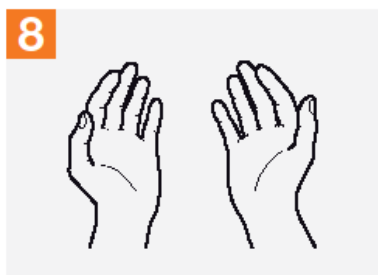
Rotational rubbing of left thumb clasped in right palm and vice versa;

**7**



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

**8**



Once dry, your hands are safe.



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## Correct use of chemicals

- Read the labels!
- For equipment and the environment: clean surfaces first, then disinfect.
- Wipe surfaces in one direction so that you do not wipe microbes back onto cleaned surfaces.
- For disinfectants to work properly, make sure that all the surfaces are thoroughly wet with the disinfectant.

CHEMICALS TO CLEAN AND DISINFECT HANDS AND SKIN			
	<b>Alcohol hand rub</b> In bottles or automated dispensers <ul style="list-style-type: none"> <li>• To disinfect hands according to the 5 Moments for Hand Hygiene</li> </ul> 		<b>Regular liquid soap</b> For hand washing in non-critical areas as well as all staff and patient toilets
	<b>Chlorhexidine gluconate (chlorhexidine + alcohol)</b> Patient skin prep prior to aseptic procedure: <ul style="list-style-type: none"> <li>• Insertion of central line</li> <li>• Lumbar puncture</li> <li>• Surgical procedures</li> </ul>		<b>Chlorhexidine soap (antimicrobial soap)</b> <ul style="list-style-type: none"> <li>• Hand washing in high-risk clinical areas</li> <li>• Hand scrubbing prior to aseptic/surgical procedures</li> <li>• Decolonization of patients – larger children/adults</li> </ul>
CHEMICALS TO CLEAN AND DISINFECT EQUIPMENT AND THE ENVIRONMENT			
	<b>Green household soap</b> <ul style="list-style-type: none"> <li>• Environmental cleaning</li> <li>• Washing down of all equipment prior to disinfecting</li> </ul> Washing dishes and food containers including feeding cups and milk containers for babies		<b>Sodium hypochlorite / bleach ("Biocide" ®)</b> <ul style="list-style-type: none"> <li>• Mix correctly (instructions on package) and discard after 24 hours</li> <li>• Disinfect environmental surfaces (floors, walls, blinds, work surfaces and non-sensitive equipment) after cleaning</li> </ul> 
			<b>70% Alcohol or disinfectant wipes</b> <ul style="list-style-type: none"> <li>• Clean procedure trolleys / work surfaces</li> <li>• Clean stethoscopes</li> <li>• Clean equipment around the patient bedside</li> </ul> <div style="text-align: right;">(where applicable)</div> 

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