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**衛生防護中心**  
Centre for Health Protection

**Guidelines for Home-based Services  
for the Prevention of Coronavirus disease  
(COVID-19)  
(Interim)**

**I. Disease Information and Affected Areas**

Please visit from time to time the following website of for disease information, affected areas and updated information related to COVID-19:

<https://www.coronavirus.gov.hk/eng/index.html>

The Department of Health advises workers who provide home-based services in the community to take the following precautionary measures to minimize the risk of contracting and spreading COVID-19.

**II. General Preventive Measures**

- (a) Perform hand hygiene properly before entering and leaving the home, before touching your eyes, nose or mouth; before eating; after using the toilet; and touching public installations or equipment such as elevator control panels or door knobs. In addition, staff should perform hand hygiene at the beginning of the workday, before feeding clients, before and after touching clients and their surroundings.



- (b) Perform hand hygiene whenever hands are possibly contaminated.
- (c) When hands are visibly soiled, wash hands with soap and water. When hands are not visibly soiled, cleaning hands by rubbing them with 70-80% alcohol-based handrub is an effective alternative.
- (d) Cover nose and mouth with tissue paper when sneezing or coughing. Dispose soiled tissue paper properly into a lidded rubbish bin and wash hands with liquid soap and water afterwards.
- (e) Do not share personal items such as eating utensils and towels.

### **III. Preparation of Home-based Services**

- (a) The precaution serves two purposes: 1) protect the staff from transmitting the infection to client, 2) protect the staff from getting the infection from the client.
- (b) Staff should check their temperature before work every day. Those with fever, respiratory symptoms or sudden loss of taste or smell should refrain from work, consult doctor at once and inform the organisation.
- (c) Apart from the equipment required for delivering the home-based services, prepare the necessary and adequate amount of personal protective equipment (PPE), including spare ones when the PPE are soiled.
- (d) Bring 70-80% alcohol-based handrub for hand hygiene before and after delivering the service.
- (e) Bring thermometer to check the client's temperature.
- (f) Before the visit, call the client or the family member to see:
  - i. If the client has any fever, new onset respiratory symptoms or sudden loss of taste or smell. Those having these symptoms should seek medical advice promptly;
  - ii. If the client or his/her household member is under home quarantine. Suspend or postpone the home-based service if any of the above occurs.

### **IV. Delivering Home-based Services**

- (a) Perform hand hygiene as appropriate.
- (b) Wearing surgical mask throughout the home visit. Use mask properly. (Please refer to

[https://www.chp.gov.hk/files/pdf/use\\_mask\\_properly.pdf](https://www.chp.gov.hk/files/pdf/use_mask_properly.pdf))

- (c) Check the body temperature of the client. Should advise those with fever, respiratory symptoms or sudden loss of taste or smell to seek medical advice promptly.
- (d) Advise the client to wear surgical mask as far as feasible.
- (e) Maintain good indoor ventilation of the home environment. Windows should be opened to allow good intake of fresh air as far as feasible.
- (f) Keep the time staying with the client to essential minimum.
- (g) For meal delivery and home making services, minimize the physical contact with the client as far as feasible.
- (h) Appropriate PPE are needed for escorting service, feeding, providing personal care (e.g. cutting hair, assisting in bathing), rehabilitation exercises, and nursing care.

## V. Minimum Personal Protective Equipment (Annex I)

- (a) The mode of transmission of COVID-19 is via droplets and contact. Aerosol-generating procedures<sup>1</sup> may pose a risk of opportunistic airborne transmission.
- (b) Selection of PPE should be based on risk assessment of services / cares to be provided.
- (c) Hand hygiene is important to prevent spread of infections (Annex II).
- (d) **Surgical masks** should be sufficient for general nursing procedures. N95 respirators are not required unless for aerosol generating procedures like open suction after risk assessment. Special training is required for proper wearing and removal of N95 respirator. Otherwise the infective risk due to inadequate protection and contamination may be increased.
- (e) **When rendering person care services for residents who are not wearing masks, e.g. feeding or performing oral care**, or if there is risk of splashing of body fluids during the care process, eye protection (**goggles** or **face**

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<sup>1</sup> Aerosol-generating procedures include endotracheal intubation, cardiopulmonary resuscitation, bronchoscopy, open suctioning of respiratory tract (including tracheostomy care), autopsy and non-invasive positive pressure ventilation (BiPAP & CPAP).

**shield) should be used.**

- (f) **Gloves:**
  - i. Not necessary in general.
  - ii. Should be used if anticipating contact with body fluids including excreta, sputum and blood, mucous membrane, non-intact skin, or items that are contaminated by body fluids.
- (g) **Sterile gloves** are needed for aseptic procedures (e.g. wound care, peritoneal dialysis care, Foley's insertion, open suction).
- (h) **Gown** if anticipating contact with body fluids including excreta, sputum and blood.

## **VI. Maintain Environment Clean and Hygienic**

- (a) For household cleaning service, maintain good hygienic standard through thorough cleaning and disinfection (please refer to Annex III for procedures of preparing and using diluted bleach). Using 1 in 99 diluted household bleach (mixing 1 part of household bleach containing 5.25% sodium hypochlorite with 99 parts of water) for environmental cleaning and disinfection. For metallic surface, disinfect with 70% alcohol.
- (b) If places are contaminated by respiratory secretions, vomitus or excreta, use strong absorbent disposable paper towels to wipe them away. Then disinfect the surface and the neighbouring area with 1 in 49 diluted household bleach (mixing 1 part of household bleach containing 5.25% sodium hypochlorite with 49 parts of water). For metallic surface, disinfect with 70% alcohol.
- (c) Use 1 in 4 diluted household bleach (mixing 1 part of household bleach containing 5.25% sodium hypochlorite with 4 parts of water) for places contaminated with blood spillage.
- (d) Remind the client to maintain drainage pipes properly and pour about half a liter of water into each drain outlet (U-traps) regularly (about once a week). For details, please refer to:

[https://www.chp.gov.hk/files/pdf/make\\_sure\\_the\\_trap\\_is\\_not\\_dry.pdf](https://www.chp.gov.hk/files/pdf/make_sure_the_trap_is_not_dry.pdf)

## VII. Escort Staff

- (a) Staff who have been in contact with a confirmed case in the past 28 days, whose household members are under home quarantine or who are under medical surveillance should not act as an escort staff.
- (b) Escort staff should check their temperature before work every day. Those with fever, respiratory symptoms or sudden loss of taste or smell should refrain from work and consult doctor at once.
- (c) The clients to be accompanied by escort staff should be those with no fever/suspicious of having COVID-19. The clients should wear surgical mask as far as feasible.
- (d) During work, escort staff should:
  - i. Put on their working clothes/uniform
  - ii. Wear surgical mask
  - iii. Carry alcohol-based handrub and perform hand hygiene whenever indicated
  - iv. Have eye protection if the clients cannot wear mask
- (e) After return home, staff should take a bath or shower, wash their hair, and wash their clothes properly.

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## Annex I

### Minimum Personal Protective Equipment (PPE)

The PPE is recommended from infection control perspective for procedures under the COVID19 pandemic for individuals not under quarantine receiving Home-based Care and Support Services\*.

Action		Minimum PPE for Home-based Care and Support Services						
		Surgical Mask	N95 Respirator	Gown	Cap	Eye Protection (Goggles/Face Shield)	Gloves	Remarks
1	Deliver meals	Yes						
2	Assist transportation and escort	Yes						
3	Assist bathing, hair washing, hair cutting, shaving, nail cutting, changing of clothes, etc	Yes		Optional			Optional	Gloves and Gown are optional if body fluid contamination is anticipated
4	Provide home-making services (e.g. household cleaning, changing of bed sheets and pillowcases, laundry)	Yes		Optional			Optional	Gloves and Gown are optional if environment is anticipated to be contaminated with body fluid

Action		Minimum PPE for Home-based Care and Support Services						Remarks
		Surgical Mask	N95 Respirator	Gown	Cap	Eye Protection (Goggles/Face Shield)	Gloves	
5	Feeding, oral care	Yes				Yes		
6	Assist toileting and change of napkin	Yes					Yes	
7	Conduct basic nursing care (e.g. testing urine)	Yes						Gloves if contact with body fluids anticipated. Eye protection if splashes anticipated
8	Conduct special nursing care (e.g. stoma care, peritoneal dialysis care, Foley's catheter care)	Yes					Yes	Sterile gloves for aseptic procedure (e.g. peritoneal dialysis care, insertion of Foley's catheter)
9	Rehabilitation exercise (e.g. exercises to be assisted by occupational therapist or physiotherapist)	Yes						
10	Chest physiotherapy	Yes		Optional		Yes	Optional	Gloves and Gown are optional if body fluid contamination is anticipated

Action			Minimum PPE for Home-based Care and Support Services						
			Surgical Mask	N95 Respirator	Gown	Cap	Eye Protection (Goggles/Face Shield)	Gloves	Remarks
11	Suction	Closed	Yes				Yes	Yes	
		Open	Yes	#	#		Yes	Yes (Sterile gloves)	
12	Conduct speech therapy and training		Yes				Optional	Yes	Gloves for contact with saliva Eye protection if splashes anticipated

**\* Home-based Care and Support Services include -**

- Integrated Home Care Services
- Enhanced Home and Community Care Services
- Home Care Service for Persons with Severe Disabilities
- Integrated Support Service for Persons with Severe Physical Disabilities

# N95 respirator and gown should be considered if any of the following is present:

- Client / family member under medical surveillance
- Client / family member has contacted with person with fever, acute respiratory symptoms or sudden loss of taste or smell in the past 14 days

The client should properly wear surgical mask as far as feasible.

## Perform Hand Hygiene Properly

1. Many infectious diseases can be transmitted through contact. If hands are contaminated with pathogens, especially when they are soiled with respiratory discharge or faecal matters, diseases include dysentery, cholera, hepatitis, influenza, and hand, foot and mouth disease can be spread easily. Observance of hand hygiene is the prerequisite of the prevention of the spread of communicable diseases. Using soap and water or alcohol-based handrub can achieve hand hygiene.

### When to perform hand hygiene?

- (a) Before & after touching eyes, nose and mouth;
- (b) Before eating & preparing food;
- (c) After using the toilet;
- (d) When hands are contaminated by respiratory secretions, e.g. after coughing or sneezing;
- (e) After changing diapers or handling soiled items from children or the sick
- (f) After touching animals, poultry or their droppings;
- (g) After handling garbage;
- (h) After touching public installations or equipment, such as escalator handrails, elevator control panels or door knobs;
- (i) Before and after visiting hospitals, residential care homes or caring for the sick; and
- (j) Any time you find your hands are dirty.

## How to select appropriate agents for hand hygiene?

2. It is advised to clean hands with liquid soap and water when hands are visibly dirty or visibly soiled with blood and body fluid, after using the toilet or changing the diapers. When hands are not visibly soiled, hand hygiene with 70-80% alcohol-based handrub is also an effective alternative. According to World Health Organization's recommendation, most alcohol-based handrubs contain either ethanol, isopropanol or n-propanol, or a combination of two of these products. Always check the expiry date before purchasing and using alcohol-based handrub.

### Steps for hand hygiene

(a) Hand hygiene with liquid soap and water:

- (i) Wet hands under running water.
- (ii) Apply liquid soap and rub hands together to make a soapy lather.
- (iii) Away from the running water, rub hands according to the 7 steps of hand hygiene technique for at least 20 seconds (refer to point c for detail). Do not rinse off the soap while rubbing.
- (iv) Rinse hands thoroughly under running water.
- (v) Dry hands thoroughly with either a clean cotton towel, a paper towel, or a hand dryer.
- (vi) The cleaned hands should not touch the water tap directly again. For example: using a paper towel to wrap the faucet before turn it off.

(b) Hand hygiene with alcohol-based handrub:

- (i) Apply a palmful of alcohol-based handrub to cover all surfaces of the hands. Rub hands according to the 7 steps of hand hygiene technique for at least 20 seconds until the hands are dry (refer to point 3 for detail).

(c) Hand hygiene technique:

- (i) Proper hand hygiene technique should follow the 7 steps and rub hands for at least 20 seconds.



3. Video demonstration

(a) Please visit the Centre for Health Protection website:

(i) Hand hygiene with liquid soap and water

[https://www.youtube.com/watch?v=pN2C6AJ2\\_EA](https://www.youtube.com/watch?v=pN2C6AJ2_EA)

(ii) Hand hygiene with alcohol-based handrub

<https://www.youtube.com/watch?v=oNpAbLN2vPI&feature=youtu>

## **The Use of Bleach**

Bleach is a strong and effective disinfectant. Its active ingredient, sodium hypochlorite, denatures protein in micro-organisms and is therefore effective in killing bacteria, fungi and viruses. Household bleach works quickly and is widely available at a low cost. Diluted household bleach is thus recommended for the disinfection of environment .

2. As bleach irritates mucous membranes, the skin and the airway, decomposes under heat and light and reacts readily with other chemicals, bleach should be used with caution. Improper use of bleach may reduce its effectiveness in disinfection and can injure users. Overuse of bleach will pollute the environment and disturb ecological balance.

### **Tools and Equipment**

3. Get all necessary tools and equipment ready, such as household bleach, measuring tools, containers and Personal Protective Equipment.

### **Preparing / Using Diluted Bleach**

- (a) Dilute and use bleach in a well-ventilated area.
- (b) Put on appropriate Personal Protective Equipment (e.g. mask, gloves, safety goggles and plastic apron) when diluting or using bleach as it irritates mucous membranes, the skin and the airway.
- (c) Mix bleach with cold water as hot water decomposes the active ingredient of bleach and renders it ineffective.
- (d) Bleach containing 5.25% sodium hypochlorite. Properly dilute the bleach to achieve appropriate concentration as follows:
  - (i) 1 in 99 diluted household bleach (mixing 1 part of 5.25% bleach with

- 99 parts of water) is used for general household cleaning and disinfection.
- (ii) 1 in 49 diluted household bleach (mixing 1 part of 5.25% bleach with 49 parts of water) is used for surfaces or articles contaminated with vomitus, excreta and secretions.
  - (iii) 1 in 4 diluted household bleach (mixing 1 part of 5.25% bleach with 4 parts of water) is used for surfaces or articles contaminated with blood spillage.
- (e) Make adjustments to the amount of bleach added if its concentration of sodium hypochlorite is above or below 5.25%.
- (i) Calculation: Multiplier of the amount of bleach added =  $\frac{5.25}{\text{concentration of sodium hypochlorite in bleach}}$
  - (ii) For example, when diluting a bleach containing only 5% sodium hypochlorite, the multiplier is  $\frac{5.25}{5}=1.05$ . That means  $10\text{ml} \times 1.05 = 10.5\text{ml}$  of bleach should be used when preparing a bleach solution.
- (f) Use a tablespoon or measuring cup for accurate measurement of the amount of bleach added.
- (g) Wash hands thoroughly after the procedure.

### **Precautions for the use of bleach**

- (a) Avoid using bleach on metals, wool, nylon, silk, dyed fabric and painted surfaces.
- (b) Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes and consult a doctor.
- (c) Do not use bleach together with other household detergents as this reduces its effectiveness in disinfection and causes dangerous chemical reactions. For example, a toxic gas is produced when bleach is mixed with acidic detergents such as those used for toilet cleaning. This can result in accidents and injuries. If necessary, use detergents first and rinse thoroughly with

water before using bleach for disinfection.

- (d) Undiluted bleach liberates a toxic gas when exposed to sunlight, thus store in a cool, shaded place and out of reach of children.
- (e) Sodium hypochlorite decomposes with time. To ensure its effectiveness, purchase recently produced bleach and avoid over-stocking.
- (f) For effective disinfection, use diluted bleach within 24 hours after preparation as decomposition increases with time if left unused.
- (g) Organic materials inactivate bleach; clean surfaces so that they are clear of organic materials before disinfection with bleach.