

Advice on School Disinfection at the Height of Influenza Season

Influenza

Influenza is a highly infectious viral disease. In Hong Kong, the peak season is from January to March and from July to August. Influenza is transmitted from person to person by droplet or contact of respiratory secretion (direct or indirect). Since infective agents can survive in the environment for a period of time, it is essential to maintain good environmental hygiene to minimize the transmission of influenza in school.

Everybody has a role to play in the control of influenza by practising good personal hygiene, which includes proper hand hygiene (*Please note Annex I for Guidelines for Hand Hygiene*) and complying with infection control measures at the relevant settings. The following actions are strongly advised for schools to prevent influenza and contain its spread in schools during Influenza season:-

a) Maintain good indoor ventilation

- Windows of classroom should be opened for better ventilation
- Switch on fans or exhaust fans to enhance air flow
- Keep air-conditioners well-maintained
- Clean the dust-filters of air-conditioners regularly

b) Environmental cleansing and disinfection

- Keep classrooms, kitchen, canteen, toilets and bathrooms clean and hygienic. School management is advised to maintain good hygienic standard of the school premises through thorough cleansing and disinfection daily. In case of occurrence of influenza outbreaks, the cleansing and disinfection measures have to be enhanced, for examples, in terms of frequency and strength of disinfectants used. The following presents the key points to note in the environmental hygiene and disinfection:-

General rule:

- ◆ Clean and disinfect frequently touched surfaces, furniture, toys, commonly shared items and floor at least daily by using appropriate disinfectant (e.g. 1 part of 5.25% household bleach in 99 parts of water for non-metallic surface or 70% alcohol for metallic surface), wait until dry and then rinse with water. (*Please note Annex II for procedures of preparing / using diluted bleach*).

- ◆ If places are contaminated by respiratory secretions, vomitus or excreta, use strong absorbent disposable towels to wipe them away. Then disinfect the surface and the neighbouring area with appropriate disinfectant (e.g. 1 part of 5.25% household bleach in 49 parts of water for non-metallic surface or 70% alcohol for metallic surface), leave for 15-30 minutes, and then rinse with water. *(Please note Annex II for procedures of preparing / using diluted bleach).*

When there is an outbreak:

- ◆ In case of school outbreaks, concentration of bleach can be increased (e.g. 1 part of 5.25% household bleach in 49 parts of water for non-metallic surface) for cleansing and disinfection of the premises. The steps listed in the general rule above are to be followed. The method of disinfection of places contaminated by respiratory secretions, vomitus or excreta will be the same as highlighted in the general rule.

c) Environmental Support for Hand Hygiene Practice

- Provide liquid soap and disposable paper towels or hand dryers at places where there are hand washing facilities e.g. toilets, kitchen/ pantry, laundry, art room as indicated.
- Provide alcohol hand rub in places where hand washing facility is not available. 70-80% alcohol-based hand rub is effective for disinfection only when hands are not visibly soiled.
- Schools should refer to instructions on the container for proper usage and storage of alcohol hand rub. To reduce fire risk, alcohol hand rub in excess of 20 Litres should be stored in a Dangerous Goods Store. According to Fire Services Department's advice, each school should not keep more than a total of 20 litres of the alcohol hand rub (40 bottles of 500ml capacity, or 200 bottles of 100ml capacity, or combinations of the two sizes). More than this, the alcohol hand rub will need to be stored in an approved Cat. 5 Dangerous Goods Store. *(Please note Annex III for a list of potential suppliers for alcohol hand rub)*

For more information

Please visit the website of the Centre for Health Protection of the Department of Health at www.chp.gov.hk or call the Department of Health's 24-Hour Health Education Hotline at 2833 0111.

*Centre for Health Protection
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Annex 1

Guidelines for Hand Hygiene

Many infectious diseases can be transmitted through direct 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. There are two ways to achieve hand hygiene including good handwashing and proper use of alcohol-based handrub.

When do we perform Hand Hygiene?

1. Before touching the eyes, nose and mouth
2. Before eating or handling food
3. After using the toilet
4. When hands are contaminated by respiratory secretions, e.g. after coughing or sneezing
5. After touching public installations or equipment, such as escalator handrails, elevator control panels or door knobs
6. After changing diapers or handling soiled articles when looking after young children or the sick
7. Before and after visiting hospitals or residential care homes.
8. After making contact with animals or poultry

As a matter of good practice, students are reminded to clean their hands frequently. In general, we should wash hands with soap and water when hands are visibly soiled or likely contaminated with body fluid, for example, after using the toilet or changing the diapers, after coughing or sneezing. When hands are not visibly soiled, 70-80% alcohol-based handrub is also effective for disinfection.

Steps for Hand Hygiene

a) Handwashing with soap and water:

1. Wet hands under running water.
2. Apply liquid soap and rub hands together to make a soapy lather.
3. Away from the running water, rub the palms, back of hands, between fingers, back of fingers, thumbs, finger tips and wrists. Do this for at least 20 seconds.
4. Rinse hands thoroughly under running water.
5. Dry hands thoroughly with either a clean cotton towel, a paper towel, or a hand dryer.
6. The cleaned hands should not touch the water tap directly again.
 - The tap may be turned off by using the towel wrapping the faucet; or
 - after splashing water to clean the faucet.

Please note:

- Towels should never be shared.
- Used paper towel should be properly disposed of.
- Personal towels to be reused must be stored properly and washed at least once daily. It is even better to have more than one towel for frequent replacement.

b) Use of alcohol-based handrub

- Apply a palmful of alcohol-based handrub and cover all surfaces of the hands. Rub the palms, back of hands, between fingers, back of fingers, thumbs, finger tips and wrists for at least 20 seconds until the hands are dry. The picture below demonstrates the 7 steps in the use of alcohol-based handrub.



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Annex II

Procedures of Preparing / Using Diluted Bleach

- Keep windows open when diluting or using bleach to ensure good ventilation
- Use protect gear (e.g. mask and gloves) when diluting or using bleach as it irritates mucous membranes, the skin or the airway
- Cold water should be used for dilution as hot water decomposes the active ingredient of bleach and renders it ineffective.
- Use measuring jug to measure proper volume of bleach for dilution.
- Cleaning tools should be soaked in diluted bleach for 30 minutes and then rinsed thoroughly before reuse.

Precaution:

- Avoid using bleach on metals, wool, nylon, silk, dyed fabric and painted surfaces.
- Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes and consult a doctor.
- Bleach should not be used together or mixed with other household detergents as this reduces its effectiveness in disinfection and causes chemical reaction.
- As undiluted bleach liberates a toxic gas when exposed to sunlight, it should be stored in a cool and shaded place out of reach of children.
- Sodium hypochlorite decomposes with time. To ensure its effectiveness, it is advised to purchase recently produced bleach and avoid over-stocking.
- For effective disinfection, diluted bleach should be used within 24 hours after preparation as decomposition increase with time if left unused.

Annex III**List of Manufacturers**

<i>Company Name</i>	<i>Address</i>
Quality Pharmaceutical Laboratory Ltd*	Flat E, 4/F, Flat A-E, 21/F and Flat A-E, 23/F, Mai On Ind. Bldg., 19-21 Kung Yip Street, Kwai Chung, N.T.
	(Tel. 2429 8412) (Fax No. 2487 2571)
Medipharma Ltd.	Rm. 2404, 2409-16, 24/F Tsuen Wan Ind. Ctr., 220-248 Texaco Road., Tsuen Wan, N.T.
	(Tel. 2408 9171) (Fax No. 2407 6092)
Jean-Marie Pharmacal Co. Ltd.	1/F., 12 Dai Fu Street, Tai Po Ind. Estate, Tai Po, N
	(Tel. 2407 3271, 2408 8356) (Fax No. 2407 5707)
The United Laboratories Ltd.	Yuen Long Industrial Estate, 6 Fuk Wang Street, Yuen Long, N.T.
	(Tel. 2687 1033) (Fax No. 2687 1031)
Advance Pharmaceutical Co. Ltd.	Rm A, 2-3/F., Tai Po Ind. Est., 12 Dai Fu St., Tai Po. NT.
	(Tel. 2497 0311) (Fax No. 2432 0106)
Vida Laboratories Ltd.	Rm. 505, 905, 910, 914, 915 & 919 Vanta Ind. Ctr., 21-23 Tai Lin Pai Road., Kwai Chung, N.T.
	(Tel. 2423 6333) (Fax No. 2423 6232)
Christo Pharmaceuticals Ltd.	Rm A, B01, B12, C & D, Blk. 2, 14/F Superluck Ind. Ctr., 57 Sha Tsui Rd., Tsuen Wan, N.T.
	(Tel. 2414 0146) (Fax No. 2493 5666)
Vickmans Laboratories Ltd.*	2-3/F., Flat A, B, C, 4/F., China Trade Centre, No. 122-124 Wai Yip St., Kwun Tong, Kln.
	(Tel. 2726 0302) (Fax No. 2352 2074)
Neochem Pharmaceutical Laboratories Ltd.	1/F Decca Ind. Centre, 12 Kut Shing Street, Chaiwan, H.K.
	(Tel. 2562 6255) (Fax No. 2563 4018)
Synco (HK) Ltd.	Rm G 1/F, Rm C, 2/F. & Rm B, C, D & G, 3/F., Sunview Ind. Bldg., 3 On Yip St., Chai Wan, H.K.
	(Tel. 2556 0157) (Fax No. 2897 2582)
Universal Pharmaceutical Laboratories Ltd.*	Unit 1-5, 1/F., Unit 3, 7/F., Unit 2B, 2/F., Unit 1-3, 8/F., Eastern Ctr., 1065 King's Rd., Quarry Bay, H.K.
	(Tel. 2562 8131) (Fax No. 2565 7913)
Fortune Pharmacal Co. Ltd.	5/F., Safety Godown Industrial Bldg., 56 Ka Yip St., Chai Wan HK.
	(Tel. 2880 0990) (Fax No. 2565 8752)

Unicorn Laboratories O/B American Unicorn Laboratories Ltd.	Flat 3-4, 6-13, 5/F & Flat 20, 13/F., Wah Yiu Ind. Ctr., 30-32 Au Pui Wan Street, Fotan, N.T.
	(Tel. 2697 3898) (Fax No. 2693 2315)
Loyal Advance Ltd.	Rm L, 2-3/F., Tai Po Ind. Est., 12 Dai Fu St., Tai Po, NT.
	(Tel. 2433 6608) (Fax No. 2433 6777)
Marching Pharmaceutical Ltd.	Rm 16, Blk A, 9/F., Rm 2-6, 8-12 Blk B, 9/F., Vigor Ind. Bldg., 14-20 Cheung Tat Rd., Tsing Yi, N.T.
	(Tel. 2432 6993) (Fax No. 2431 8355)
Europharm Laboratoires Co. Ltd.	Tai Po Ind. Estate, 12 - 14 Dai Wang Street, Tai Po, N.T.
	(Tel. 2662 2433, 2606 2788) (Fax No. 2607 0980)
APT Pharma Ltd.	3/F., 4/F. & 6B, Tai Fung Industrial Bldg., 61 Hung To Road, Kwun Tong, Kln.
	(Tel. 2389 6279) (Fax No. 2372 9990)
Pharmtech (HK) Ltd.	6/F & Units 1B,1C,2B-1, 2A, 5/F., 1, 11/F, 7, 17/F., 10 with 2 Store Rms. 18/F., 23-39 Pak Tin Par Street, Tsuen Wan, N.T.
	(Tel. 2499 8886) (Fax No. 2499 0077)
Karen Laboratories O/B Karen Pharmaceutical Co. Ltd.	Rm A-B 1/F., & Flat B 19/F., Success Industrial Bldg., 7 Kin Fat St., Tuen Mun, N.T.
	(Tel. 2722 1208) (Fax No.2956 1108)
Meyer Pharmaceutical Ltd.	Rms. J, K, M & E 3/F., Valiant Ind. Ctr., 2-12 Au Pui Wan Street, Fotan, Shatin, N.T.
	(Tel. 2601 2670) (Fax No. 2602 6744)
Bright Future Pharmaceuticals Pty O/B Bright Future Pharmaceutical Ltd	BF Pharmaceutical Ctr., 8 Wang Fu Street, Yuen Long Ind. Est., Yuen Long, N.T.
	(Tel. 35562701) (Fax No. 24761123)

* Pharmaceutical manufacturers known to have WHO alcohol hand rubs for sale