

Prevention and Control of Communicable Diseases in Kindergartens / Child Care Centres / Schools

Infection Control Branch Sep 2017





Contents

- Introduction
- Infection control in schools / centres
 - A brief introduction on the "Guidelines on Prevention of Communicable Diseases in Schools / KG / KG-Cum-CCC / CCC"
 - Sentinel surveillance
 - Leaflets and posters
 - Videos
 - Health advices
 - Letter to schools/ kindergartens





Introduction

- Communicable diseases can easily spread through close person-to person contact in children
- Prevention, early detection and management
 - Prevent the spread of communicable diseases
- Roles of school / centre staff are important
- Designated staff should coordinate and monitor the implementation of preventive and control measures for communicable diseases





Infection Control in Schools/ Centres

- 1. Guideline
- 2. Sentinel surveillance
- 3. Leaflets and posters
- 4. Videos
- 5. Health talks
- 6. Letter to schools/ kindergartens



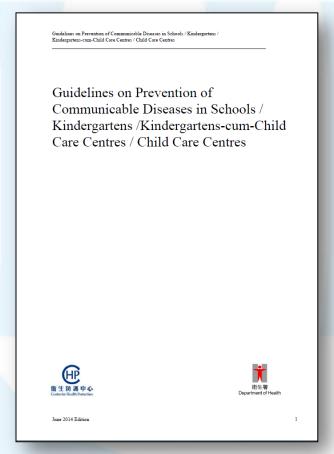


Guidelines on Prevention of Communicable Diseases in

Schools / KG / KG-Cum-CCC / CCC



Guidelines on Prevention of Communicable Diseases in Schools/KG/KG-Cum-CCC / CCC



C	Contents	
1. Conc	epts of communicable diseases	4
1.1	What are communicable diseases?	4
1.2	Chain of infection: infective agent—source of infection—mode of transmission—	
1.3	Why are schools/centres* more vulnerable to outbreaks of communicable diseases	s?. 6
1.4	Principles of control of communicable diseases	6
1.5	What are statutory notifiable communicable diseases?	7
2. Com	municable diseases in schools/centres	8
2.1	Signs and symptoms of some common communicable diseases	8
2.2	Subtle signs and symptoms of infection among children	8
2.3	Measuring body temperature	9
3. Gene	eral guidelines on prevention of communicable diseases	14
3.1	Personal hygiene	14
3.2	Food hygiene	15
3.3	Environmental hygiene	17
3.4	Vaccination	21
4. Prev	entive measures to be adopted by schools/centres against communicable disease	es22
4.1	Standard precautions	22
4.2	Hand hygiene	22
4.3	Use of personal protective equipment (PPE)	22
4.4	Handling of contaminated articles	24
4.5	Additional preventive measures according to different modes of transmissions	25
5. Outl	oreak of communicable diseases	27
5.1	What does an outbreak of communicable disease mean?	27
5.2	What should be done if an outbreak is suspected?	27
5.3	What are statutory notifiable communicable diseases?	28



Contents in Guideline



7 major sections

- 1. Concepts of communicable diseases
- 2. Communicable diseases in schools/ centres
- 3. General guidelines on prevention of communicable diseases
- 4. Preventive measures to be adopted by schools/centres against communicable diseases
- 5. Outbreak of communicable diseases
- 6. Roles of school/ centre staff and related support
- 7. Appendix (15 attachments)

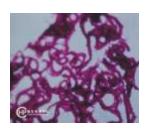




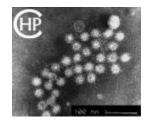
What are Communicable Diseases?

Infective agents (pathogens)

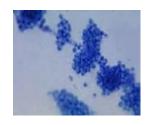
Bacteria



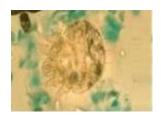
Viruses



Fungi



Parasite

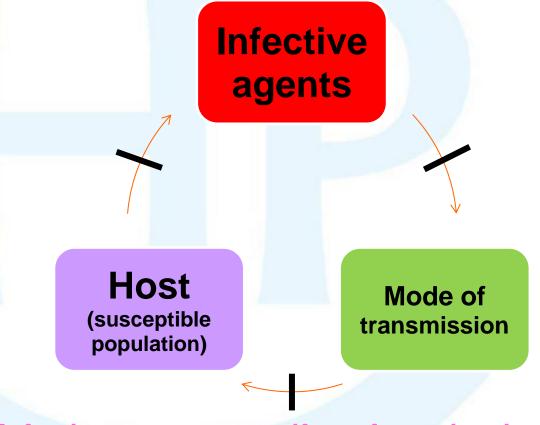


- Transmission
 - Invade the body or release toxins
 - Damage normal body cells and their functions
 - In severe cases, they may lead to death





Crucial factors for the spread of communicable diseases





Infection cannot occur if any factor is missing

General Guidelines on Prevention of Communicable Diseases

Controlling crucial factors →Break the chain of infection →Control the spread of communicable diseases

Preventive measures

- ✓ Disinfection to kill the **infective agents**
- ✓ Early detection, isolation and treatment
- ✓ Removal of breeding sites
- ✓ Maintenance of good environmental, personal and food hygiene
- ✓ Adoption of infection control measures appropriate to the different modes of transmission
- ✓ Building up personal immunity by immunisation and healthy lifestyles



Mode of transmission

1.2.3 mode of transmission

Mode of		Examples of communicable		
Mode of	Process	Examples of communicable		
transmission	210000	diseases		
Contact	Through direct body contact with the	 Hand, foot and mouth 		
transmission	infected persons, e.g. playing together with	disease		
	direct skin contacts; or indirect through	Acute conjunctivitis		
	contact with objects contaminated by	Head lice		
	infective agents, e.g. sharing towels, combs	 Scabies 		
	and clothes	Chickenpox #		
Droplet	Inhale or contact of droplets expelled from	Influenza		
transmission	the sick during sneezing, coughing, spitting	 Common cold 		
	and speaking, or through subsequent	Acute bronchiolitis		
	touching of mucous membranes of the	Pneumonia		
	mouth, nose and the eyes, etc with hands	 Severe acute respiratory 		
	contaminated with infective agents	syndrome (SARS)		
		Scarlet fever		



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- 5. Outbreak of communicable diseases
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- 7. Appendix (15 attachments)



Exampl		unicable Diseases (田本 Bealth Protection s/ Centres
Diseases	Signs/symptoms	Typical signs and symptoms Fover

Diseases	Signs/symptoms
Acute conjunctivitis	Redness of eyes, itching eyes, excessive tears, abnormal secretion
Avian influenza	Similar symptoms as influenza viruses but more likely to result in high fever, pneumonia, respiratory failure, multi-organ failure and eventual death
Chickenpox	Fever, fatigue, vesicles on head and body
Dengue fever	Fever, headache, muscle pain, impaired mental state
Gastroenteritis	Abdominal pain, vomiting, diarrhoea, poor appetite, fatigue, fever
Hand, foot and mouth disease	Fever, poor appetite, malaise, sore throat, painful sores in the mouth, rash (red spots) on palms of the hands and soles of the feet
Hepatitis B	Fever, jaundice, fatigue, poor appetite
Human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS)	Weight loss, fever, profuse night sweating, swollen lymph nodes, pink to purplish blotches on or under the skin, inside the mouth, nose, or eyelids. Patients with HIV infection can be without symptoms for years
Influenza	Fever, cough, sneeze, runny nose, sore throat, muscle ache, fatigue
Pneumonia	Fever, fatigue, cough, thick sputum, sputum with blood, shortness of breath
Severe Acute Respiratory Syndrome (SARS)	Fever, fatigue, headache, chills, cough, shortness of breath, difficulty in breathing, diarrhoea
Scabies	Itchiness, localised rash, desquamation, swelling, scales, etc.
Tuberculosis	Persistent <u>fever</u> , cough, sputum with blood, fatigue, weight loss, night sweating

- > Fever
- > Vesicles







Subtle signs and symptoms

- Crying and nagging for no reason, restlessness
- Loss of appetite
- ➤ Lack of energy
- > Shortness of breath
- > Frequent eye rubbing
- > Frequent scratching



Measuring Body Temperature

Measuring method	Celsius scale (℃)	Fahrenheit scale (°F)
Ear	38.5 °C	100.4 °F
Rectal	38.5 ℃	100.4 °F
Oral	37.5 °C	99.5 °F
Armpit	37.3 °C	99.1 °F



Importance:

Body temperature varies with age, time of day and level of physical activity. For screening purpose, temperature above the reference range will be considered as significant and one should consult a doctor for suspected fever.





Child Health Records

- Maintain proper personal health records for each child
- Check and record children temperatures regularly
- Most children develop fever / Some children have fluctuating temperature when infected
 - > Vigilant to identify children with fever
 - > Influenza season
 - Outbreak of communicable diseases
- Pay more attention to young children who have special health conditions since they are more vulnerable to infection



General guidelines on prevention of communicable diseases

- Personal hygiene
- Food hygiene
- Environmental hygiene
- Vaccination





Personal Hygiene





Researches show

Performing **Hand Hygiene** properly is the most effective way to prevent the spread of communicable diseases







- Supervise children to develop good hand hygiene habits
- Indicate the moments for hand hygiene









- Either hand washing <u>or</u> proper use of alcohol-based handrub can achieve hand hygiene
- Provide adequate hand hygiene facilities in the schools / centres
- Liquid soap, paper towel or hand dryer
- Proper means for hand drying: disposable paper towel or hand dryer

Put up hand hygiene posters to remind others the

importance of hand hygiene



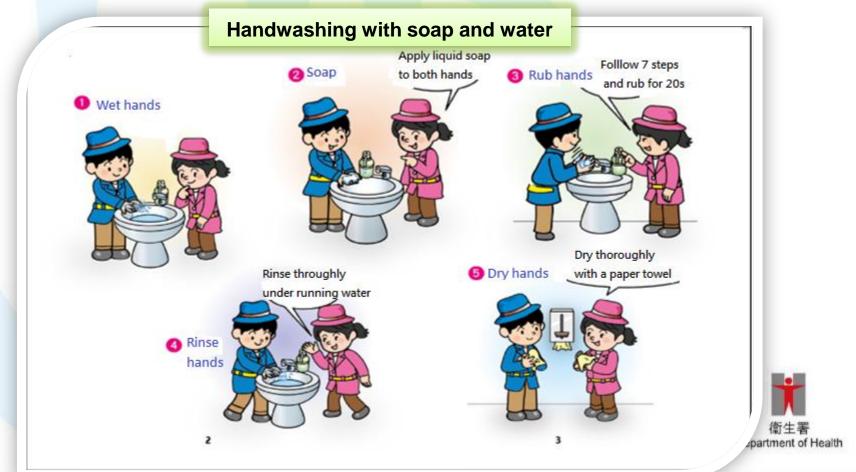








Wash hand with soap and water when hands are visibly soiled or likely contaminated with body fluid, e.g. after using the toilet, after coughing or sneezing





When hand are not visibly soiled, 70-80% alcohol-based handrub is effective for

disinfection Use of alcohol-based handrub 7 steps hand hygiene technique 拇指 Thumbs



Respiratory hygiene



Instruct the children to maintain respiratory hygiene practices

Visual alert

Output Post up posters

- Cover both the nose and mouth with a handkerchief or tissue paper when coughing or sneezing
- Wrap up sputum with tissue paper and discard it into garbage bins with lids
- Wash hands immediately after contacting respiratory secretions or touching objects contaminated with respiratory secretions
- Put on a surgical mask for those with respiratory infection symptoms









Points to note about wearing a surgical mask

- Choose the appropriate mask size. <u>Child size</u> is available for children
- Perform hand hygiene before putting on a mask
- The coloured side of the mask faces outwards, with the metallic strip uppermost
- For those masks without a coloured side, the side with folds facing downwards on the outside
- The metallic strip moulds to the bridge of the nose and the mask should fit snugly over the face
- Extend the mask to fully cover mouth, nose and chin
- Try not to touch the mask once it is secured on the face. If you must do so, wash hands before and after touching the mask
- After taking off the mask, put it into a rubbish bin with a lid and perform hand hygiene immediately





Food Hygiene



Choice of food

- Buy fresh meat and vegetables
- > Do not patronise illegal food hawkers



- Do not buy packaged food without proper labelling, beyond its expiry date or with damaged packages
- Preparation of food
 - Wash hands properly before preparing food
 - Wash food thoroughly, and scrub with a brush when appropriate
 - Handle and store raw food and cooked food separately. Use separate knives and chopping boards for each to avoid cross-contamination
 - Cook food thoroughly before consumption



Food Hygiene

Storage of food

- > Store food in well-covered containers
- > Never leave perishable food in room temperature
- ➤ Keep the refrigerator clean and function properly, and clean it at regular intervals. Keep the temperature inside the refrigerator at or below 4°C and the freezer at or below -18°C
- Temperature of each refrigerator should be recorded regularly in a temperature log book
- ➤ Cold foods should be kept at 4°C or below
- Store perishable food in the refrigerator immediately after purchase







Maintain good indoor ventilation to remove or dilute the infective agents in the air

- ✓ Open windows wide
- √Turn on fans or exhaust fans
- ✓ Clean air-filters regularly











Since infective agents can survive in the environment for a period of time, it is essential to observe proper environmental hygiene

Choice of disinfectants

- Different types of disinfectants can be used to clean the environment
- ➤ Household bleach, which normally contains 5.25% hypochlorite solution, is the most convenient and effective disinfectant
 - ✓ General cleaning:1 in 99 diluted household bleach (5.25%)
 - ✓ Places contaminated with respiratory secretions, vomitus or excreta:
 - 1 in 49 diluted household bleach
- Use 70% alcohol for disinfection of metal surfaces







Clean and disinfect the area of schools / centres daily

including classrooms, playrooms, kitchens, canteens, toilets, bathrooms













 Toys and equipment should be cleaned thoroughly

Increase the cleansing frequency of frequently touched surfaces such as computer keyboards, handrails





Reminder:

To prevent items from contamination







Clean and disinfect school buses daily



Vaccination

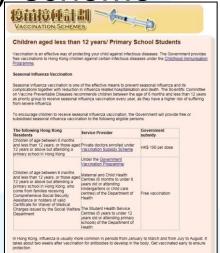


Remind parents to vaccinate their children according to the childhood immunisation programme recommended by CHP

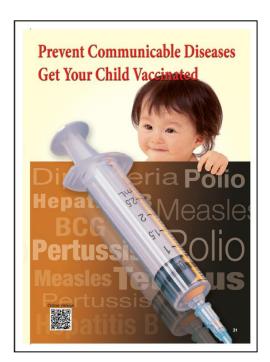
> Childhood immunisation programe

> Childhood influenza vaccination

subsidy scheme



Hong Kon	g Childhood Immunisation Programme
Newborn	BCG Vaccine Hepatitis B Vaccine First Dose
1 month	Hepatitis B Vaccine Second Dose
2 months	DTaP-IPV Vaccine First Dose Pneumococcal Vaccine - First Dose
4 months	DTaP-IPV Vaccine Second Dose Pneumococcal Vaccine Second Dose
6 months	DTaP-IPV Vaccine Third Dose Pneumococcal Vaccine Third Dose Hepatitis B Vaccine Third Dose
1 year	MMR Vaccine (Measles, Mumps & Rubella) First Dose Pheumococcal Vaccine Booster Dose Varicella Vaccine - First Dose*
1 1/2 years	DTaP-IPV Vaccine Booster Dose
Primary 1	MMRV Vaccine [Measles, Mumps, Rubella & Varicella] - Second Dose* DTaP-IPV Vaccine Booster Dose
Primary 6	dTap-IPV Vaccine Booster Dose







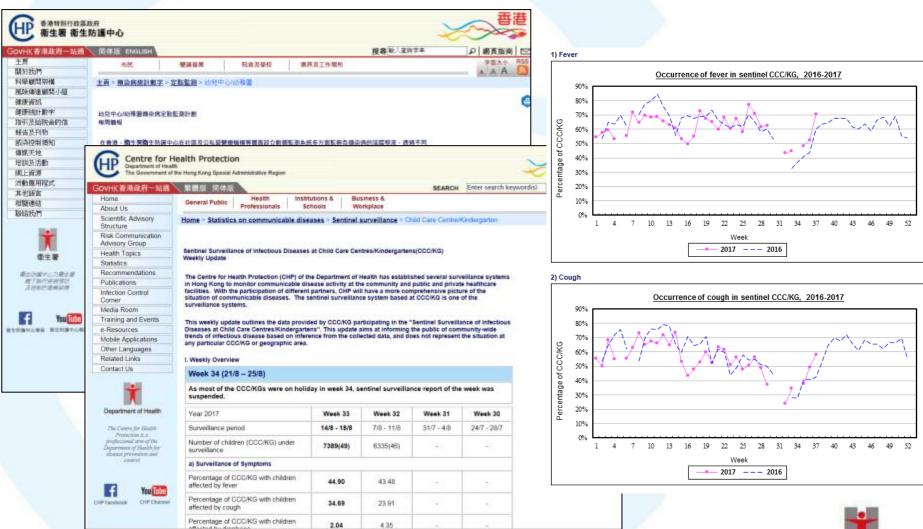
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Sentinel Surveillance

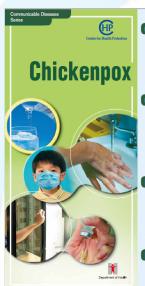






Leaflets and Posters





Causative agent

Chickennox (varicella) is an acute infectious disease caused by the varicella-zoster virus. It predominantly affects children under 12 years of age. Although almost all persons develop lifelong immunity after chickenpox infection, the virus may remain latent in the body and recur many years later

Clinical features

Patient usually presents with fever and itchy skin

Hand, Foot and

Mouth Disease

Causative agent

Infectious period

Usually 1 - 2 days before rash appears and until all

vesicles have dried up. It is extremely contagious,

Chickenpox is generally a mild disease and is

usually self-limiting. However, secondary bacterial

infection of the wound may occur. Those with

weakened immunity or are pregnant are most likely to suffer from severe complications such as

especially in the early stage of rash eruption.

Hand, Foot and Mouth Disease (HFMD) is a common disease in children caused by enteroviruses such as coxsackieviruses and enterovirus 71 (EV71). The EV71 infection is of particular concern as it more likely associates with severe outcomes (like viral meningitis, encephalitis, poliomyelitis-like paralysis) and even death. The usual peak season for HFMD in Hong Kong is from early summer to autumn and a

Clinical features

resolves in 7 - 10 days. It usually

 Sick children should stay at home and be excluded from school until all vesicles have dried up, usually about 1 week after appearance of rash to prevent spreading the disease to others

- Parents should closely monitor the child's condition. If the child persistently runs a fever, refuses to eat or drink, vomits or looks drowsy, immediate medical attention should be sought
- Parents should also closely monitor other children in the household for signs and symptoms of chickenpox

Incubation period

Management

- There is no specific drug treatment for HFMD. Patients should drink plenty of water and take adequate rest, and may receive symptomatic treatment to reduce fever and pain from oral
- Sick children should stay away from school or gatherings till all vesicles have dried up to avoid spreading the disease. If infection is caused by enterovirus 71, the patient should stay at home for two more weeks after recovery from the disease (i.e. fever and rash subsided, and

STREET, STREET,

- Cover both nose and mouth with tissue paper when coughing or sneezing and discard the soiled tissue paper in a lidded rubbish bin.
- Do not share towels and other personal items.
- . Regularly clean and disinfect frequently touched surface such as furniture, toys and commonly shared items with 1:99 diluted household bleach (mixing 1 part of 5.25% bleach with 99 parts of water), leave for 15 - 30 minutes, and then rinse with water and keep dry. For metallic surface, disinfect with 70% alcohol.
- · Use absorbent disposable towels to wipe away obvious contaminants such as respiratory cretions, vomitus or excreta, and then disinfect the surface and neighbouring areas with 1:49 diluted household bleach (mixing 1 part of 5.25%





A BREEFARE L 1.000 4. 電子管學表現中自然的學術 - 取行機構與多數學 Although it is not possible to keep your bare hands germ-bea, there are times when it is critical

to show your hands to first the runities and the spread of person. Always remember to clean your hands in the following situations:

Personal Hygiene:

2 Selves earing or handling hood 2 After using the splicts 5 When hands are contaminated by respiratory



何時声潔手

Department of Health

Videos



學校/幼稚園/幼稚園暨幼兒中心/幼兒中心預防傳染病指引

短片

第1節: 簡介 (1.4MB)

第2節:一般傳染病的常見病徵 (7.6N

第3節:預防傳染病的一般指引(29.6

第4節:處理疑似的傳染病爆發(16.8

第5節: 示範 (28.8MB)

你可前往以下網頁 http://www.chp.gov

Guidelines on Prevention of Communicable Diseases in Schools/Kindergartens/Kindergartens-cum-Child Care Centres/Child Care Centres

Video

Chapter 1: Introduction (1.4MB)

Chapter 2: Symptoms & signs of common communicable diseases (7.6MB)

Chapter 3: General guidelines on prevention of communicable diseases (29.6MB)

Chapter 4: Handling of suspected outbreak of communicable diseases (16.8MB)

Chapter 5: Demonstration (28.8MB)

You may wish to download video by visiting

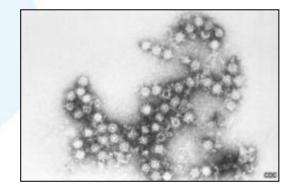
Health Talk



- Hand, foot and mouth disease
- Influenza
- Outbreak of communicable diseases









Letter to schools/ kindergartens

Vigilance against Hand,
Vigilance against Hand,
Foot and Mouth Disease
Foot and Enterovirus 71
(HFMD) and Enterovirus
(EV71) Infection

監測及流行病學



Surveillance And Epidemiology Branch

* ₩ 16 M Our Ref. : (269) in DH SEB CD/8/22/1 Ⅲ

28 June 2017

Dear Principal / Person-in-charge.

Vigilance against Hand, Foot and Mouth Disease (HFMD) and Enterovirus 71 (EV71) Infection

I would like to draw your attention to the recent increase in activity of hand, foot and mouth disease (HFMD) and enterovirus 71 (EV71) infection and urge schools and institutions to be vigilant against the diseases.

The Centre for Health Protection (CHP) of the Department of Health recorded an increasing number of institutional outbrask of FBMD in record wreek, from six in week 22 (ending 3 June) to 18 in week 25 (ending 24 June). There were ten institutional IPBMD outbreak recorded in the first three days of week 26 (ending 1 July). Besides, we rewrite the order of FBMD based at restinger private meloid paratitioners and sentined child care centres/kinderpartens also recorded a corresponding increase of HFMD settiny the revent two weeks. In addition, the number of cases of EVF1 infection recorded also also increased from zero to one case per week during weeks 22 to 24 to 6fer cases in week 25. As add 27 June, a stud of 24 EV71 cases have been recorded in 2017.

HFMD is a viral infection commonly seen in children. The infection can occur throughout the year in Hong Kong but the discuse activity usually peaks from May to July. Common symptoms include fever, sore throat, and skin rash over the hands and feet. Although the filtens is self-limining in most cases, some cases especially caused by EVT1 may be associated with complications like myocardinis, encephalitis or politomythis-like partysis.



Maintaining good hygiene practice is the most important measure to prevent HPMD and EV71 infection. Schools and institutions are recommended to take the following measures to prevent outbreak:

Maintain good communication with parents and advise them to keep their children at

香港九級召拾老街 1470 號 3 欄 3 変 1470 Acryle Street, Kowlean, Hone Kinne

Increase in Scarlet Fever Activity





Surveillance And Epidemiology Branch

* W 48 96 Our Rat ; (22) in DH SEB CD/8/50/1 Pt.2

July 4 2017

Dear Principals / Persons-in-charge / Teachers,

Increase in Scarlet Fever Activity

The Centre for Health Protection (CHP) of the Department of Health today (July 4) appealed to parents and schools/institutions for heightened vigilance against scarlet fever (SF) as its activity has been increasing in the past few works

According to the CHPs surveillance data, the weekly number of SF cases increased from 38 in the week of June 4, 2017, to 49, 52 and 69 in the three subsequent weeks. Regarding SF outbreaks in schools/institutions, nine affecting 21 punils/children were recorded in June.

Of note, as of June 30, a total of 1215 SF cases had been reported to the CHP for the first six months in 2017, which has increased markedly than that in the same period in 2016 (727 cases) and 2015 (674 cases).

The local SF activity is usually higher from November to March and from May to June. In view of the recent increase in SF activity, parents have to take extra care of their children in maintaining strict personal, hand and environmental liveinee.

In addition, among the 1215 SF cases reported to the CHP this year, it crows the control of the CHP this year, it controls to 43 years (median: 5 years), nearly all of which (1170, 96.2 per cent) were under 10 years. Most presented with mild illnesses and clinical presentations were largely similar to cases in previous years. Among firm, 431 cases (35.5 per cent) reported hospitalisation. While one servere case reported in March required admission to an intensive care usin, no deaths have been recorded so the



SF is a bacterial infection caused by Group A Streptococcus. It mostly affects children. They are transmitted through either respiratory droplets or direct contact with infected respiratory secretions.

> 香港九職団鈴老街 147C 號 3 樓 BF, 147C Argyle Street, Kowloon, Hong Kon,

Alert on Sharp Increase in Activity of Seasonal Influenza

監測及流行病學處



Surveillance And Epidemiolog

本事保険 Our Ref. : (204) in DH SEB CD/8/27/1 Pt.21

July 17, 2017

Dear Principal / Person-in-charge

Alert on Sharp Increase in Activity of Seasonal Influenza

I would like to update you on the latest influenza situation and remind you of heightened vigilance amid the marked increase in activity of seasonal influenza in Hong Kong recently.

Hong Kong has entered the summer influenza season in mid-May. Our latest surveillance data show that the local seasonal influenza activity has been increasing markedly in the past two weeks and has reached a very high level. We foresee that the influenza activity will remain at a high level in the coming weeks. We strongly urge the public, particularly children, the elderly and chronic disease patients, to observe strict personal, hand and environmental hygiene for better erevonal corotic-mainstaint seasonal influenza.

The positive percentage of seasonal influenza virsues among respiratory specimens received by the Centre for Health Protection (CHP)'s Public Health Laboratory Services Branch increased from 31.48% to 35.66% from the week of June 25 to that of July 2 (20.76% in the week of June 18). Most detections between June 18 and July 8 were influenza A(H3N2) (91.3%), followed by influenza A(H3N)pdm90 5 65%.



The number of institutional outbreaks of influenza-like illness (ILI) increased from 30 (affecting 210 persons) in the week of June 18 to a range of 41 and 44 (affecting 221 - 236 persons) per week in the past three weeks, most outbreaks (\$2.0%) were reported by residential care homes for the elderly, followed by child care centres/kindergattens (22.8%), primary schools (11.8%), secondary schools (2.4%), residential care homes for the disabled (2.4%).

香港九廠亞資老街 147C 號 3 標 3/F, 147C Argyle Street, Enwloon, Hong Kong



Letter to schools/ kindergartens

Prevent influenza and respiratory tract infection

- If students/ children develop fever and symptoms of respiratory tract infection, advise them to stay at home for rest until fever has subsided for at least 2 days
- Staff with respiratory illnesses who are suspected to be epidemiologically linked to an outbreak should refrain from work
- Report promptly to CHP if notice an increase in cases of respiratory illnesses or absenteeism

(Tel: 2477 2772, Fax: 2477 2770)



Infection Control in Schools/ Centres

To develop variety of infection control information



- To enhance communication mechanism
- To ensure a delightful learning environment to support the healthy development of children





Thank You

