

## GVP Express - 愛自己由呢針做起

Annual flu vaccination is the most effective way to reduce the risk from flu illness and its potentially serious complications. This year, a candid and humorous video talking about flu vaccination is broadcasting in Kowloon West Cluster. The video engaged Dr Desmond Nguyen (HCE of Kwai Chung Hospital), Dr Jacky Chan (AC, Department of Medicine & Geriatrics (Infectious Disease), Princess Margaret Hospital) and nursing colleagues from KCH to present the importance of getting flu vaccination and clarify the myths against the flu vaccine in hip-hop style.

Enjoy the video at <http://haveido.home/HAVOD/Video.aspx?vid=1628>



*Protecting yourself and  
your loved ones from the flu,  
let's start from this shot.*



## Good Practices for Handling of Contaminated Sharps

Sharps injuries can occur in healthcare settings. The use of sharp devices exposes healthcare workers (HCWs) to the risk of injury and potential exposure to blood-borne pathogens, including hepatitis B virus, hepatitis C virus and human immunodeficiency virus (HIV).

Percutaneous injuries most often occur:

- during use of a sharp device on a patient;
- after use and before disposal of a sharp device;
- during or after disposal of sharp devices.

Hollow-bore needles are of particular concern, especially those used for blood collection or intravascular catheter insertion, as they are likely to contain residual blood and are associated with an increased risk for blood-borne virus transmission. Non-hollow-bore sharps such as glass vials and suture needles have also been involved in sharps incidents.

All HCWs should take precautions to prevent injuries caused by needles, scalpels and other sharp instruments or devices: during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures.

The use of safety-engineered devices with built-in

protective features (e.g. needles with guards, sliding sheaths, shields, blunted tips or retracting needles, blunt suture needles and surgical blades with protective covers) has been widely used. Their use has shown a reduction in the rate of incidence of percutaneous injuries.

There are good practices for safe sharp handling, including:

- Dispose of single-use sharps immediately into a sharps box at the point-of-use.
- Sharps box must not be filled above the line that indicates the maximum fill level.
- Do not recap needles after use.
- Use instruments, rather than fingers, to grasp needles, retract tissue, and load / unload needles and scalpels
- Give verbal announcements when passing sharps
- Avoid hand-to-hand passage of sharp instruments by using a basin or neutral zone.

References:

1. HA OSH Newsletter 2018 (vol. 19)  
<http://osh.home/osh/files/files.news/KC7QDWU/19th%20HA%20OSH%20Newsletter.pdf>
2. Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).

Current Topic: The Plague

Latest update

On 28 November 2019, a rural herder was confirmed with bubonic plague in China's Inner Mongolia, bringing the total number of cases to four since the beginning of the month. The patient is in stable condition and 4 people who had close contact with the patient have been quarantined. The third case, reported on 17 November, involved a man aged 55 who had consumed a hare (wild rabbit). The first two cases with pneumonic plague were a couple who traveled from Mongolia to Beijing for treatment in mid of November.

Infectious agent and vector

Plague is an acute infectious disease caused by the bacteria *Yersinia pestis* (*Y. pestis*) and is still endemic in indigenous rodent populations of South and North America, Africa and Central Asia. For instance, Madagascar experienced a large outbreak of plague in 2017, affecting a total of 2,417 cases of plague, including 209 deaths (case fatality rate 9%).

*Y. pestis* was discovered by Alexandre Yersinin in 1894. It is an immobile Gram-negative bacillus, which is aerobic and encapsulated. The transmission of the bacteria from rodents to humans by flea bites was discovered by Jean-Paul Simond in 1898. The primary hosts of the fleas are the black urban rat and the brown sewer rat. Rabbits, hares, wild carnivores, prairie dogs and domestic cats may also serve as a host of infected fleas as well as reservoir of disease.

Bubonic plague is the most common form of plague, and can advance and spread to the lungs which is a more severe type called pneumonic plague. Septicemic plague can occur when the bacteria enter the bloodstream and are dispersed throughout the body.



Source: SCIENCE - *Yersinia pestis*

Three great plague pandemics

Back in 540-590 AD, the Justinian Plague started in central Africa and spread to Egypt and the Mediterranean, causing 5,000-10,000 deaths per day. In 1346-1361, the Black Death originated in Asia and spread to the Crimea then Europe and Russia. One third of European population deceased in this notorious outbreak. The third outbreak of the bubonic plague, dated back in 1894, originated in Yunnan Province of China and spread to Hong Kong and India, then to the rest of the world. The plague first erupted at the Tai Ping Shan area due to the poor sanitary conditions. The disease continued to be endemic in Hong Kong until 1929 and caused more than 20,000 deaths.

The three forms of plague and modes of transmission will be shared in next issue.

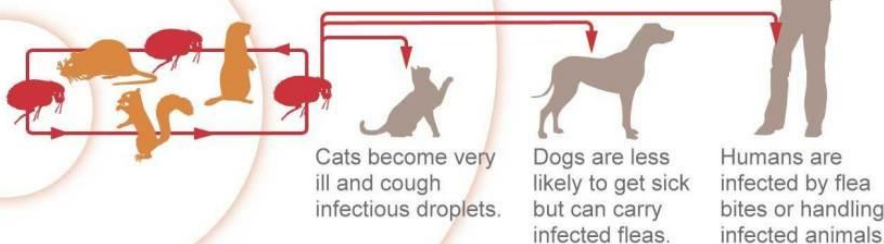
**Path of a plague**

**In nature**

The plague bacterium is transmitted by infected fleas and cycles naturally among wild rodents.

**At home**

Occasionally infections in rodents increase, causing an outbreak. Humans and domestic animals bitten by infected fleas are at risk.



Cats become very ill and cough infectious droplets.

Dogs are less likely to get sick but can carry infected fleas.

Humans are infected by flea bites or handling infected animals.

Source: Centers for Disease Control and Prevention

Lorena Elebee / @latimesgraphics

Source: US CDC - Path of a plague

References:

1. CHP Press release: <https://www.info.gov.hk/gia/general/201911/18/P2019111800782.htm>
2. WHO Fact sheet of Plague: <https://www.who.int/en/news-room/fact-sheets/detail/plague>
3. WHO Plague – Madagascar <https://www.who.int/csr/don/27-november-2017-plague-madagascar/en/>
4. The Plague: Medical and Historical Characterization. [https://www.academia.edu/9422994/THE\\_PLAGUE\\_MEDICAL\\_AND\\_HISTORICAL\\_CHARACTERIZATION\\_REPRESENTATION\\_IN\\_LITERATURE\\_CASE\\_STUDY\\_A\\_JOURNAL\\_OF\\_THE\\_PLAGUE\\_YEAR\\_BY\\_DANIEL\\_DEFOE](https://www.academia.edu/9422994/THE_PLAGUE_MEDICAL_AND_HISTORICAL_CHARACTERIZATION_REPRESENTATION_IN_LITERATURE_CASE_STUDY_A_JOURNAL_OF_THE_PLAGUE_YEAR_BY_DANIEL_DEFOE)
5. The History of Plague – Part 1. The Three Great Pandemics <https://jmvh.org/article/the-history-of-plague-part-1-the-three-great-pandemics/>