

Communicable Diseases

WATCH



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FEATURE IN FOCUS

Update on the upsurge of hepatitis A infection among MSM in Hong Kong and Updated recommendations on hepatitis A vaccination

Reported by Dr Bonnie WONG, Senior Medical and Health Officer, Dr Kenny CHAN, Consultant, Special Preventive Programme, Public Health Services Branch, and Dr Billy HO, Senior Medical and Health Officer, Communicable Disease Division, Surveillance and Epidemiology Branch, CHP.

Since the publication of the article in CD Watch reporting an unusual increase in number of reported hepatitis A (HAV) infection among men who have sex with men (MSM) in Hong Kong (Volume 14, Number 3; Jan 29 – Feb 11, 2017 at http://www.chp.gov.hk/files/pdf/cdw_v14_3.pdf), as at June 9, 2017, the Centre for Health Protection (CHP) of the Department of Health (DH) has identified 15 more MSM cases with confirmed hepatitis A infection via retrospective investigations and prospective reporting (Figure 1 and 2).

A confirmed case was defined as a laboratory-confirmed HAV infection with clinical symptoms in an individual identified as MSM. As of June 9, 2017, CHP identified a total of 43 cases aged 20 to 51 years (median: 33 years), with symptom onset from September 2015 to May 2017. Thirty-six (83.7%) required hospitalisation and no fatalities were recorded. Thirty-three cases (76.7%) were known to be HIV positive attending one of the three designated public HIV clinics.

Apart from two who had received hepatitis A vaccine two weeks and one year prior to symptom onset respectively, the rest did not report history of HAV vaccination. Fourteen of the 43 cases reported travel history within the incubation period, and the most common regions they had visited were Mainland China (5), Japan (3) and Taiwan (3).

At least eleven cases were also diagnosed to have sexually transmitted infections (STIs) (including syphilis, gonorrhoea, chlamydia infection, and one case of HIV seroconversion) during or within one month of their HAV diagnosis. Ten cases admitted to have oral-anal sex with their sexual partners during the incubation period. Apart from one cluster affecting two patients who were sex partners residing together, no other epidemiological linkage among these cases could be found.

CHP also performed microbiological investigations to characterise and assess the extent of outbreak. Thirty-six cases had specimen available for laboratory analysis, all of which belonged to genotype IA, while 23 (63.8%) had identical nucleotide sequences within the genotyping window, but no epidemiological linkage among the cases could be found. No common food or water source was identified among these cases. Epidemiological investigations suggested that transmission was by way of sexual contact between men, a high proportion of whom were HIV-infected.

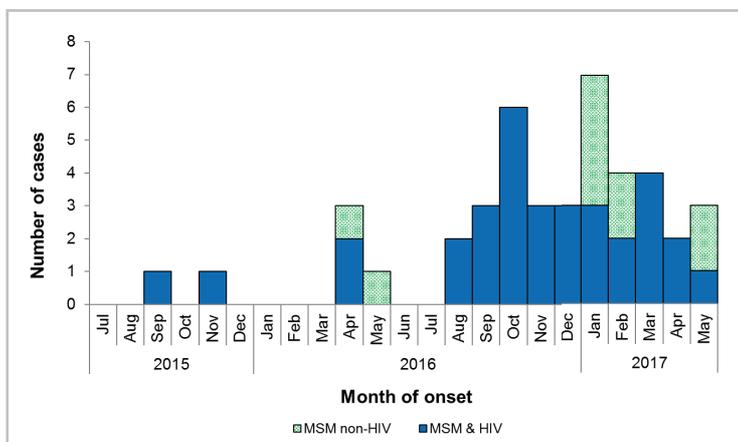


Figure 1 - Hepatitis A cases among known MSM, by HIV status, July 2015-June 9, 2017.

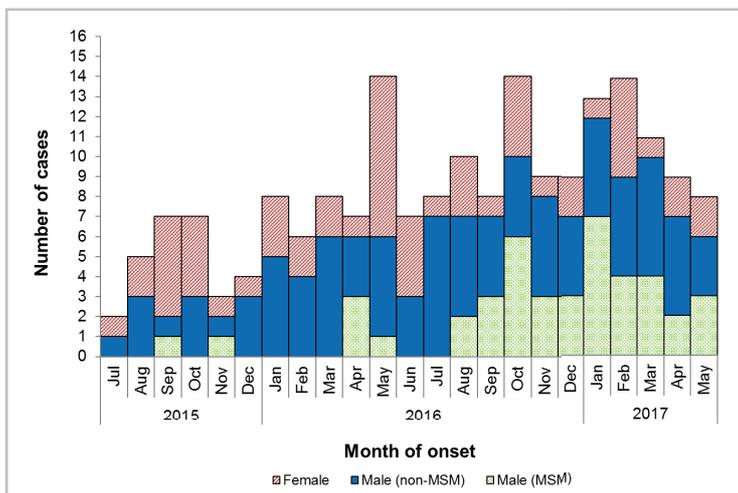


Figure 2 - Hepatitis A cases recorded by CHP, July 2015-June 9, 2017.

Since February 3, 2017, CHP has launched a HAV vaccination programme targeting the MSM community in an attempt to prevent a large-scale outbreak. HIV-positive MSM followed up at the three public HIV clinics and current MSM attendees of two DH's male Social Hygiene Clinics with negative or unknown HAV immune status were offered two doses of hepatitis A vaccines for free. As of June 9, 2017, a total of 1 432 doses were given at the three HIV clinics while 121 clients received the vaccination from the private sector, giving a vaccination coverage of 81% among eligible HIV-infected MSM. One hundred and ten doses were given to MSM attendees of the two DH's Social Hygiene Clinics.

Updated recommendations on hepatitis A vaccination

In June 2017, the Scientific Committee on AIDS and STI (SCAS) and the Scientific Committee on Vaccine Preventable Diseases (SCVPD) issued a statement extending the recommendation for hepatitis A vaccine to MSM in order to reduce the risk of infection in this vulnerable community, in addition to persons with chronic liver disease, persons with clotting factor disorders receiving plasma-derived replacement clotting factors, and travellers to endemic areas as laid out in the previous recommendations. Details of the statement can be found at: http://www.chp.gov.hk/files/pdf/statement_on_hav_and_msm_201706.pdf.

CHP has also issued letters to doctors and hospitals to alert the health profession to the situation and remind them to offer comprehensive assessment to patients presented with suspected or confirmed hepatitis A. Health education and promotion in collaboration with non-governmental organisations has been ongoing to raise the awareness towards HAV infection among the MSM community who are advised to practice good personal hygiene and food safety, to practice safer sex measures including avoidance of oral-anal contact and to receive HAV vaccination as indicated. CHP will continue to monitor the situation closely and keep in view the effectiveness of the current measures in controlling this outbreak.



Global situation update on hepatitis A outbreaks mostly affecting MSM¹

Between June 2016 and mid-May 2017, an unusual increase in cases of hepatitis A affecting mainly MSM has been reported by low endemicity countries in the European Region (involving 15 countries), and in the Americas (involving Chile and the USA).

In Europe, 1 173 cases related to the three distinct multi-country HAV outbreaks were reported as of May 16, 2017. In Chile, 706 HAV cases were reported at national level as of May 5, 2017. In the United States, the New York City Health Department has noted an increase in HAV cases among MSM who did not report international travel.

WHO recommends hepatitis A vaccination for risk groups, including MSM, in low endemicity settings. The current global situation is of particular concern from a public health perspective because of the limited availability of hepatitis A vaccine in many countries. In addition, several national and international lesbian, gay, bisexual, and transgender (LGBT) pride festivals will take place between June and September 2017, including the World Pride Festival in Madrid, Spain between June 23 and July 2, 2017, where up to two million international guests are expected to attend.

Specific recommendations for people attending the LGBT World Pride festival are as follow:

- ◆ Before the event: Those attending the event should seek advice from healthcare providers on hepatitis A vaccination, HIV, and other STI prevention measures prior to departure.
- ◆ During the event: Preventive measures should be reinforced to reduce the risk of sexual and/or food and water borne infections.
- ◆ After the event: Attendants should contact a healthcare provider if experiencing symptoms suggestive of hepatitis A or STI infection.

Reference:

¹World Health Organization. Disease outbreak news. Hepatitis A outbreaks mostly affecting men who have sex with men - European Region and the Americas. Accessed on June 18, 2017, at <http://www.who.int/csr/don/07-june-2017-hepatitis-a/en/>.

Update of Ebola Virus Disease

Reported by Dr Eric LAM, Medical and Health Officer, Communicable Disease Surveillance and Intelligence Office, Surveillance and Epidemiology Branch, CHP.

A new Ebola Virus Disease (EVD) outbreak was notified to the World Health Organization (WHO) by the Ministry of Health (MOH) of the Democratic Republic of Congo (DRC) on May 11, 2017. Since its onset, so far this outbreak has been confined to a geographically remote and isolated area located in a northern province of the country that borders with the Central African

Republic (Figure 1). The majority of cases presented with fever, vomiting, bloody diarrhoea and other bleeding symptoms and signs. No healthcare workers were confirmed to be infected. As of June 15, 2017, there were a total of eight cases, five were serologically confirmed. Among all these cases, four fatalities were recorded¹.

EVD is caused by Ebola virus that belongs to the virus family *Filoviridae*. While there are five species within the genus *Ebolavirus*, among them, three have been associated with large outbreaks in Africa, namely: *Bundibugyo ebolavirus*, *Sudan ebolavirus* and *Zaire ebolavirus*². The 2014-2016 outbreak in West Africa was the largest Ebola outbreak since the discovery of the disease in 1976. It was caused by the *Zaire ebolavirus* with more than 28 000 cases and more than 11 000 deaths.

The current EVD outbreak in DRC was also caused by the *Zaire ebolavirus*. It was the eighth EVD outbreak in this central African country, since the deadly disease was first reported in humans in the African continent. Among the previous seven outbreaks of Ebola in DRC over the past 40 years, six were caused by the Zaire subtype and one was caused by the Bundibugyo subtype³. The number of cases reported in each of these previous outbreaks in DRC ranged from one to 318⁴.

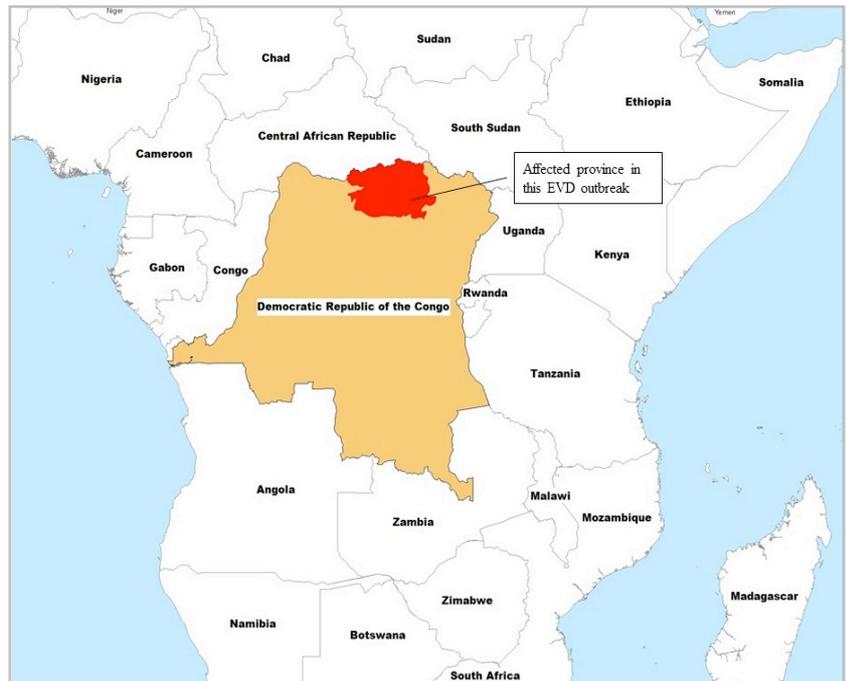


Figure 1 - Recent EVD outbreak in the Democratic Republic of Congo. (Source: CDIS.)

Taking lessons from the largest EVD outbreak in human history that originated from West Africa in 2014-2016⁵, WHO, together with other international non-government organisations including the United Nations Children's Fund (UNICEF) and Médecins Sans Frontières (MSF) etc., has offered rapid and direct technical and operational support to DRC in its response to the most recent EVD outbreak. The country's MOH has taken a strategic approach in the prevention, detection and control of the disease. These strategies, including enhanced surveillance of suspected cases and contacts, laboratory confirmation, proper case management by trained healthcare workers, infection control measures, safe burials, social mobilisation and timely risk communication, have proven effective in the containment of this disease outbreak.

According to the latest assessment by WHO, the overall risk at the global level, in light of this EVD outbreak in DRC, is considered low. Currently, WHO has also advised against application of any travel or trade restrictions on the country⁵.

In Hong Kong, EVD is a notifiable disease under the disease group of "viral haemorrhagic fever" since 2008. All registered medical practitioners are required to notify the Centre for Health Protection (CHP) of the Department of Health of all suspected or confirmed cases of EVD. As of June 11, 2017, there have been no confirmed cases of EVD recorded locally.

Despite the current local situation and the risk assessment by WHO, the Hong Kong Government continues to maintain vigilance and keep abreast of the latest developments concerning EVD. Risk assessment is carried out on an ongoing basis, with regular review on the effectiveness of the relevant response plans and reinforcement of public health measures as and when necessary.

There is no specific treatment and development of licensed vaccine for EVD is still underway. In a major trial led by WHO in Guinea in 2015, an Ebola vaccine called rVSV-ZEBOV was shown to be highly protective against the deadly virus in the contacts of confirmed EVD cases⁶. While this offers additional evidence to the possibility of preventing the deadly disease through vaccination, further study on the vaccine's effects on humans, in particular on the vaccine's safety and the durability of protection offered, is warranted. To prevent the infection of ebolavirus, it is important for members of the public to observe the following:

- ◆ Observe good personal and environmental hygiene;
- ◆ Wash the hands with liquid soap or clean with alcohol-based handrub;
- ◆ Avoid close contact with feverish or ill persons, and avoid contact with blood or bodily fluids of patients, including items which may have come in contact with an infected person's blood or bodily fluids;
- ◆ Cook food thoroughly before consumption; and
- ◆ Avoid contact with animals.

References

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²Ebola virus disease, Fact sheets, World Health Organization. Available at <http://www.who.int/mediacentre/factsheets/fs103/en/>.

³2017 Democratic Republic of the Congo, Bas Uélé District, US CDC. Available at <https://www.cdc.gov/vhf/ebola/outbreaks/drc/2017-may.html>.

⁴History of Ebola in Democratic Republic of the Congo, World Health Organization.

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⁵Ebola Situation Report - June 10, 2016, World Health Organization.

Available at http://apps.who.int/iris/bitstream/10665/208883/1/ebolasitrep_10Jun2016_eng.pdf?ua=1.

⁶Final trial results confirm Ebola vaccine provides high protection against disease, Press Release, World Health Organization.

Available at <http://www.who.int/mediacentre/news/releases/2016/ebola-vaccine-results/en/>.

NEWS IN BRIEF

A sporadic case of necrotising fasciitis due to *Vibrio vulnificus* infection

On June 8, 2017, CHP recorded a sporadic case of necrotising fasciitis due to *Vibrio vulnificus* infection affecting a 49-year-old male with underlying illnesses. He presented with bilateral feet and ankles pain and malaise since June 5. He attended the Accident and Emergency Department of a public hospital on June 6 and was admitted on the same day. The clinical diagnosis was necrotising fasciitis. Excisional debridement of left foot was performed. Specimens of blood and left foot fluid collected on June 6 grew *Vibrio vulnificus*. His current condition was stable. Epidemiological investigation revealed that the patient did not have recent travel history. There was no history of wound or injury. He lived with his wife and mother-in-law who remained asymptomatic. Investigation is ongoing.

CA-MRSA cases in May 2017

In May 2017, CHP recorded a total of 112 cases of community-associated methicillin resistant *Staphylococcus aureus* (CA-MRSA) infection, affecting 65 males and 47 females with ages ranging from nine months to 82 years (median: 36 years). Among them, there were 82 Chinese, 10 Filipinos, 6 Indian, 4 Caucasian, 3 Nepalese, 2 Indonesian, 1 Pakistani, and 4 of unknown ethnicity.

One hundred and eleven cases presented with uncomplicated skin and soft tissue infections while the remaining case had severe CA-MRSA infection. The severe case affected a 43-year-old man with underlying illness. He presented with left clavicular painful mass on April 18, 2017. He attended the Accident and Emergency Department of a public hospital on April 21 and was admitted for management. He was found to have multiple abscesses in lung, right kidney and head of left clavicle. He developed pericardial effusion with cardiac tamponade and renal failure requiring admission to intensive care unit. Drainage of the renal abscess and pericardial effusion were performed. His blood specimen collected on April 21 was cultured positive for CA-MRSA. His right renal abscess aspirate collected on April 22 and pericardial fluid collected on April 25 were cultured positive for MRSA. He was treated with antibiotics. His condition improved and he was transferred to general ward on April 28.

Separately, the isolate of one case affecting an eight-year-old girl was found to be resistant to mupirocin. The patient presented with axilla abscess and recovered after antibiotic treatment.

Among the 112 cases, two sporadic cases involved healthcare workers. One case was a physiotherapist working in a private healthcare centre while the other one was a nurse working in a public hospital. Investigation did not reveal any epidemiologically linked cases. Besides, three household clusters, with each affecting two persons, were identified.

Scarlet fever update (May 1, 2017 – May 31, 2017)

Scarlet fever activity in May increased as compared with that in April. CHP recorded 210 cases of scarlet fever in May as compared with 187 cases in April. The cases recorded in May included 122 males and 88 females aged between four months and 43 years (median: six years). There were two institutional clusters occurring in a kindergarten and a primary school, affecting a total of five children. No fatal cases were reported in May.