

本署檔號 Our Ref. : (68) in DH SEB CD/8/35/1 Pt.3

March 25, 2019

Dear Doctor,

Update on the Situation of Measles and the Recommended Schedule of Measles-containing Vaccine in Childhood Immunisation Programme

Further to our letter dated March 23 2019, we write to inform you of the latest local and global situation of measles, and the revised schedule of the second dose of measles-containing vaccine under the Hong Kong Childhood Immunisation Programme (HKCIP) recommended by the Scientific Committee on Vaccine Preventable Diseases (SCVPD) under the Centre for Health Protection (CHP) of the Department of Health.

Local situation of measles

As of March 25 11 a.m., a total of 20 cases were reported to the CHP as compared to nine, four and 15 cases in the whole year of 2016, 2017 and 2018 respectively. Two cases (10%) affected infants aged 11 months who had not yet received the first dose of measles, mumps and rubella (MMR) vaccine. Eighteen cases (90%) were adults with ages ranging from 22 to 46 years. All of them were either uncertain about their vaccination status against measles or with no known vaccination history. Twelve adult cases (67%) were born outside Hong Kong. Five cases were involved in the cluster at the Hong Kong International Airport (three workers and two crew members of a local airline). For the remaining 15 cases, all except one had travel history outside Hong Kong during their incubation period.

Global situation of measles and travel advice

Globally, an increased number of measles cases were reported in many parts of the world in 2018 and this surge continues through 2019. Measles outbreaks have been reported in many countries in recent months including the Philippines, Japan, New Zealand, etc. The incidences in some countries in Europe and Southeast Asia far exceeded that in Hong Kong. The details are shown in **Annex**. There is a significant risk of acquiring measles when non-immune persons travel to areas with high incidence or outbreak of measles. It is important for non-immune persons to get



vaccinated against measles at least two weeks before their departure. Information on areas with outbreak of measles is available from our Travel Health website (https://www.travelhealth.gov.hk/english/travel_related_diseases/news.html#Measles)

For the general public, the following groups can be considered to be non-immune to measles in general: (i) not having received two doses of measles-containing vaccine; or (ii) not confirmed to have measles infection in the past. Of note, **people born and lived in Hong Kong before 1967** are expected to have contracted measles in the past before the universal use of measles-containing vaccine in Hong Kong, and thus have antibodies against measles. Over 95% of **people born in 1985 or after in Hong Kong and studied primary school in Hong Kong** should have received two doses of measles-containing vaccine. You can refer to the following webpage:

(https://www.chp.gov.hk/files/pdf/learn_more_about_measles_vaccine_eng.pdf) for information on the history of measles vaccination provided by the Government for local children.

All members of the public who are planning to travel to places with high incidence or outbreak of measles are advised to review their vaccination history and past medical history, especially non-local born people who might not have received measles vaccination during childhood. ***MMR vaccine should be offered to persons who are non-immune to measles without the need of testing for measles antibody. There is no monovalent measles vaccine registered in Hong Kong.*** Please refer to the above paragraph for guidance on assessment of measles immunity for the general public. MMR vaccine also confers protection against mumps and rubella. Measles, mumps, rubella and varicella (MMRV) vaccine can be used for person susceptible to varicella. People who had not received any measles-containing vaccine in the past are advised to have two doses given at least four weeks apart. Those who had received one dose in the past only require one additional dose.

All MMR vaccines registered in Hong Kong are indicated for use in adults. Currently, there are three MMR vaccines registered in Hong Kong and the supplies are adequate at the moment. These include “Priorix Powder for Injection Vaccine (Live)” (registration number: HK-43861) registered by GlaxoSmithKline Limited (GSK), “MMR Virus Vaccine Live” (registration number: HK-01891) and “M-M-R II Virus Vaccine Live with pre-filled syringe of diluent” (registration number: HK-64166) registered by Merck Sharp Dohme (Asia) Limited (MSD). Besides, a MMRV vaccine “Proquad Vaccine” (registration number: HK-54831) registered by MSD is available in Hong Kong for use in adults. The contact points of these two companies for order of vaccines are as follows:

- GSK: Jully CHAN (Telephone: 3622 5422)

- MSD: Irene LEUNG (Telephone: 3971 2800)

Updated schedule of the second dose of measles vaccination under the HKCIP

Separately, we would like to draw your attention to the updated recommendation on the schedule of the second dose of measles-containing vaccine in Hong Kong. Currently under the HKCIP, children receive two doses of MMR vaccine at 12 months and Primary one (P.1). After reviewing global and local epidemiology of measles, scientific evidence on effectiveness of measles-containing vaccines, recommendations of the World Health Organization and overseas practices, the SCVPD has recommended to **move forward the second dose of measles-containing vaccine from P.1 to 18 months**. As children born on 1 January 2013 or after will receive the second dose of varicella vaccine at P.1 in the form of MMRV vaccine, hence the second dose of measles-containing vaccine to be given at 18 months will be MMRV vaccine. The first dose of MMR vaccine at 12 months remains unchanged.

This proposed change is expected to enhance protection against measles, mumps, rubella and chickenpox for young children before their entry into pre-school institutions, and to offer protection to those with primary vaccine failure. In the context of travel-related risk of measles infection, completing the two-dose regimen at 18 months may also prevent infection among young children during their travel to places with measles outbreaks or high incidence of measles. Details of this updated recommendation on measles vaccination recommended by the SCVPD are available on the following webpage of the CHP:

https://www.chp.gov.hk/files/pdf/recommendation_on_the_schedule_of_the_second_dose_of_measles_containing_vaccine_in_hong_kong.pdf.

Infection control in healthcare facilitates and special recommendation on measles immunity for healthcare workers

Measles is one of the most highly communicable infectious diseases. Patients can pass the disease to other persons from four days before to four days after the appearance of rash. That means, **a person infected with measles virus can transmit the infection while he/she is in the asymptomatic or prodromal stage before onset of symptoms.**

The CHP has advised people suspected to have been exposed to measles infection (e.g. contacts of measles patients and travellers returning from places with high incidence or outbreak of measles) to report their symptoms and travel history/contact history in advance to their healthcare workers. It is essential for healthcare facilities to implement appropriate infection control measures to prevent

any potential spread from suspected measles cases, including asking relevant travel and contact history from all patients presenting with symptoms suggestive of measles (e.g. fever and rash) upon triage at emergency departments/out-patient clinics (especially in settings with non-immune persons, children under 12 months and pregnant women). All suspected measles cases must be isolated to prevent potential spread. If your patients inform your staff that they had contact with measles patient or travelled to area with outbreak of measles, please make special arrangement so that they will not come into contact with non-immune persons in your facilities.

Moreover, there are special requirements for ascertainment of measles immunity of healthcare workers (HCWs) as recommended by the SCVDP. All HCWs should be immune to measles, by either vaccination or medical evaluation. Immunity against measles may be ascertained by written documentation of vaccination with two doses of measles-containing vaccines administered at least 28 days apart. Other methods to ascertain immunity against measles may include laboratory evidence of immunity or laboratory confirmation of disease. HCWs without evidence of immunity should be offered MMR vaccination. Please refer to the following webpage for details

(https://www.chp.gov.hk/files/pdf/summary_statement_on_vaccination_practice_for_health_care_workers_in_hong_kong_september_2017.pdf).

Further information on measles is available from the CHP's thematic webpage (<https://www.chp.gov.hk/en/features/100419.html>). Please draw the attention of the healthcare professionals and supporting staff in your institution/working with you to the above. May I take this opportunity to thank you for your continuous support in combating infectious diseases in Hong Kong.

Yours faithfully,



(Dr. CHUANG Shuk-kwan)
for Controller, Centre for Health Protection
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Annex

Globally, an increased number of measles cases were reported in many countries in 2018 and this surge continues through 2019.

In the Philippines, a total of 22,967 cases including 333 deaths recorded nationwide in 2019 (as of March 19), according to the information from the health authority of the Philippines. The most affected age groups included children aged one to four years (29%), followed by infants aged less than nine months (25%) who were not due for the first dose of measles-containing vaccine under the National Immunisation Programme of the Philippines. The 12-month measles incidence reached 155.9 cases per million population (as of January 9).

Japan also experienced a marked upsurge of measles cases since January 2019. According to the information from the Japanese health authority, 304 measles cases have been recorded (as of March 13) as compared with 282, 189, 165 and 35 in the whole year of 2018, 2017, 2016 and 2015 respectively. So far, the cumulative incidence in 2019 was the highest in Mie Prefecture (28.1 cases per million population), followed by Osaka Prefecture (12.0 cases per million population) and Wakayama Prefecture (9.3 cases per million population). Unlike the outbreak in the Philippines which mainly affected young children, the most affected age groups in Japan were young adults aged 20-29 years (28%), followed by adults aged 30-39 years (23%).

There was also an upsurge of measles cases in Macao SAR in 2019. According to the health authority of Macao SAR, a total of 19 measles cases were reported as of March 24, 2019, including a nosocomial cluster of 9 cases (7 healthcare workers and 2 patients).

Meanwhile, measles remains as an endemic infection with cases and outbreaks occurring from time to time in some parts of Southeast Asia and Europe. According to data from the World Health Organization, as of March 7, 2019, the 12-month measles incidence (number of cases per million population) has reached 86.4, 81.0, 47.9 and 16.9 in Malaysia, Thailand, India and Indonesia respectively. In Europe, very high 12-month measles incidence rates were observed in countries such as Greece (154.4), Romania (63.1), Italy (44.3) and France (43.3). These incidence rates were many times higher than that recorded in Hong Kong (12-month incidence 4.4 cases per million population for April 2018 to March 2019).