

Current topic: Ongoing measles outbreaks in Philippines and Japan

Many countries in the world are experiencing a resurgence of measles. Outbreaks were being reported not only in endemic regions, but also in countries with successful interruption of transmission, including recent large outbreak in Ukraine.

In Asia, there is an ongoing measles outbreak in the Philippines since 2018. Children aged one to four years and infants aged less than nine months are mostly affected. Japan has also experienced a marked upsurge of cases since January 2019, with high cumulative incidence in Mie, Osaka and Wakayama Prefecture. Adolescents and young adults were mostly affected. Measles outbreaks due to imported cases have been reported in Japan, Taiwan and the US with epidemiological link to travelers who acquired and brought measles back from other countries.

In Hong Kong, measles is a statutory notifiable disease. The annual totals had remained low in the past few years: 9 cases in 2016, 4 cases in 2017 and 15 cases in 2018. The coverage of Measles, Mumps and Rubella vaccination is over 95% at primary one and the measles virus antibodies in 2017 serology surveillance was 95-100% at different age groups.

However, increasing trend is noted as 14 confirmed cases have been reported in the first 2 and a half months in 2019. Most of them reported a history of travelling to neighboring countries, including Philippines, Mainland China, Japan and Europe.

Healthcare associated measles infection had been reported. Non-immune health care workers (HCW) caring for measles patients are at risk of infection. Once infected, they have the potential to transmit measles to other staff and susceptible patients who may develop severe illness and complications. Vaccination is the most effective way to prevent measles; HCWs receiving vaccination protect them from acquiring and spreading measles in healthcare settings.

Route of transmission	Airborne spread / Direct contact with infectious throat or nasal secretions
Incubation period	7 to 21 days
Clinical symptoms	Fever, skin rash, cough, coryza, running nose, conjunctivitis, a pathognomonic enanthema (Koplik spots) followed by a maculopapular rash

Watch out for Measles ! 提防感染麻疹!

Be alert to patients <1 year old (pre-MMR* vaccination) and returned travellers
特別留意<1歲的幼兒(尚未接種MMR*疫苗)及返港旅客

A recent increase of measles cases is observed in neighbouring areas
近期鄰近地區的麻疹個案上升

Clinical Presentation 臨床病徵
Fever 發燒, Rash 紅疹, Coryza / Conjunctivitis 鼻炎/結膜炎, Cough 咳嗽

Infection Control Measures 感染控制措施
Airborne Precautions
除標準防護措施以外, 亦要執行空氣傳播防護措施

*MMR: Measles, Mumps & Rubella 麻疹、流行性腮腺炎及德國麻疹
For enquiries, please contact hospital infection control team.
如有查詢, 請聯絡醫院感染控制小組。
Chief Infection Control Officer (CICO) Office
總監感染控制主任辦事處
Mar 2019 二零一九年三月

Measles is highly contagious. The communicable period is from four days before to four days after the appearance of skin rash.

Early identification, isolation and notification prevent transmission of measles in the hospital, particularly at the first point of care, e.g. triage at AED and OPD:

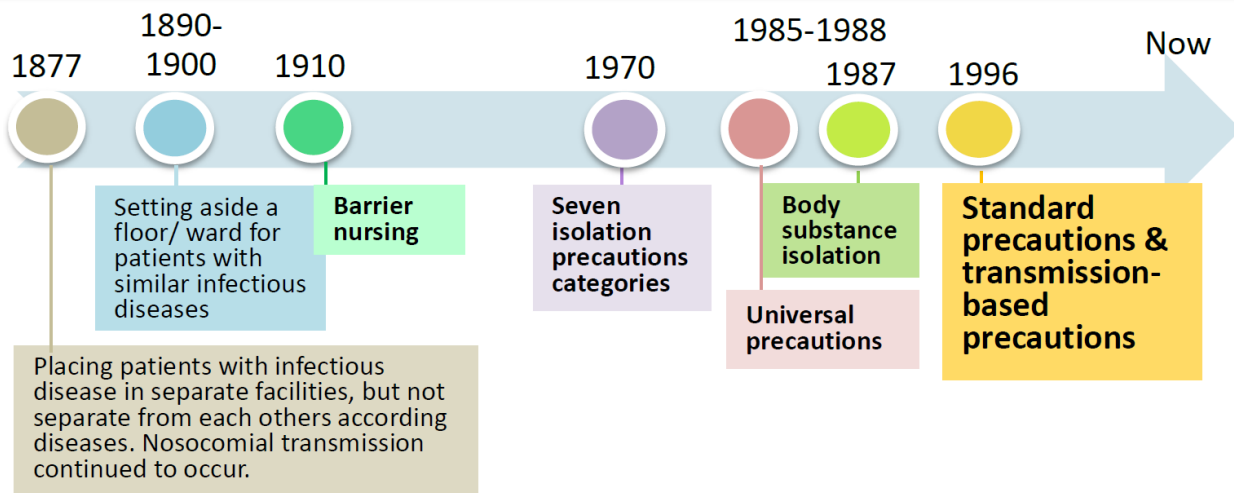
- Patient suspected or confirmed with measles should be put under airborne precautions and wear surgical mask whenever feasible.
- Be alert to the possibility of measles in patients < 1 year old (pre-MMR vaccination) and in adults without a history of measles.
- Be alert for measles in patients presenting with a rash and fever, particularly following recent travel history to the affected areas.

Guideline on measles:
http://ha.home/ho/ps/Guideline_Measles.pdf
Communication kit of measles:
http://ha.home/ho/ps/measles_Communicationkit.pdf

Reference:

1. CDC. Measles cases in 2019
2. ECDC. Communicable disease threats report. Week 10, 3-9 March 2019
3. CDW. Updates on global and local situation of measles. CHP. Issued on Feb 23 2019, May 5 2018,
4. Letter to Doctors. Alert on Measles Cases in Okinawa, Japan and Taiwan. 23 April 2018

Evolution of Isolation Precautions – CDC practice



- In 1910, barrier nursing was implemented to prevent transmission of infectious diseases between patients and healthcare workers by using separate gowns and antiseptic hand wash after patient contact. Sixty years later, 7 isolation precaution categories were developed based on route of transmission. They were strict isolation, respiratory isolation, protective isolation, enteric precautions, wound and skin precautions, discharge precautions, and blood precautions.
- Universal precautions (UP) & Body substance isolation (BSI):**
In 1985 to 1988, in response to HIV epidemic, precautions on exposure to blood and body fluids containing visible blood regardless of patient’s presumed infection status was emphasized. This new strategy for isolation precautions were known as UP, which was to protect healthcare workers from bloodborne pathogens in patients. In 1987, in order to avoid the assumption that individuals without known or suspected diagnoses of transmissible infectious diseases were free of risk to healthcare workers, body substance isolation was proposed by infection control personnel to focus on the isolation of all moist and potentially infectious body substances (e.g. stool, urine, mucous membranes or non-intact skin) even if visible blood was not present.

- Standard precautions (SP) & transmission-based precautions (TBP):**
In 1996, due to inconsistent interpretation in UP and BSI, SP was established by CDC to expand the course of UP. It has become the primary strategy to prevent transmission of infectious agents not only to the health care workers but also to patients and hospital visitors. SP was a single set of precautions which combined the major features of UP and BSI. It was used for the care of all patients in hospitals regardless of their presumed infection status, to reduce the risk of transmission of bloodborne and other pathogens in hospitals.

CDC also designed transmission-based precautions in 1996. BSI did not emphasize the infections transmitted by large droplets or by contact with dry surface and the need for special ventilation to contain airborne infections. Some hospitals also had not implemented appropriate guidelines for preventing transmission of tuberculosis and failed to recognize the problems of emerging multi-resistant microorganisms. Therefore, transmission-based precautions, in addition to standard precautions, were established to reduce the risk of airborne, droplet and contact transmission in hospitals.

SP and TBP have been adopted in HA. Posters and signage have been posted up in clinical areas. (Photo1 and Photo 2)



Photo 1: HA SP poster was updated due to introduction of alcohol handrub



Photo 2: Standardisation of HA Transmission Precautions signage

Reference:

- CDC (1996). Guidelines for Isolation Precautions in Hospitals Hospital Infection Control Advisory Committee.
- CDC (2007). Guideline for Isolation Precautions: Preventing transmission of infectious agents in healthcare settings.
- International Federation of Infection Control (2016). IFIC Basic Concepts of Infection Control (3rd edition). Isolation