Watch out for Measles!

Measles is a statutory notifiable disease in Hong Kong. The Center for Health Protection (CHP) has been closely monitoring measles activity in view of a recent increase of measles cases both in Hong Kong and in neighbouring areas.

The CHP’s surveillance data showed that there had been an increase in measles infections since September 2013, and the rise was continuing this year. In 2013, a total of 38 cases of measles infection were reported, the highest annual number since 2009.

As of 11 March 2014, the CHP recorded 16 cases of measles infection affecting five males and 11 females aged from 5 months to 40 years. Nine of these (56%) were imported cases: Four from Mainland China, 3 from the Philippines, 1 from India and 1 from United States.

Measles is a common childhood infection prior to the introduction of the measles vaccine. Affected persons usually present with generalized maculopapular rash lasting ≥ 3 days, fever and cough with or without coryza and conjunctivitis. Measles is one of the most contagious infectious diseases, and is transmitted by airborne spread and direct contact with infected respiratory secretions modalities. Incubation period usually ranges from 7-18 days and can be up to 21 days. Infected persons are infectious from 4 days before to 4 days after the onset of rash.

Serology is the most commonly used method to diagnose measles in our locality. A positive measles IgM, or a four fold rise in measles antibody titre between acute and convalescent serum in clinically compatible cases are both diagnostic of measles. Upon prior arrangement with hospital microbiologists, respiratory specimens such as nasopharyngeal swabs or throat swabs as well as urine can also be used to detect measles by RT-PCR or by measles culture.

Epidemiologically linked cases in hospitals have been reported recently [see CD Watch Volume 11 Issue 4 and Issue 5]. In this regard, HCWs should be alert to the possibility of measles in pre-vaccination ages and even in adults with or without a history of measles. Concerning the infection control measures in hospitals, airborne precautions should be implemented for a minimum of 4 days after rash onset. Furthermore, airborne precautions are also required for the exposed non-immune patients during the quarantine period.

ICT TO NOTE

Influenza A (H7N9) Infection Situation Update

On 4 March 2014, Hong Kong reported the 6th confirmed human infection of avian influenza A (H7N9) affecting an 18-month-old girl. The patient had travel history to Shunde (順德), Foshan (佛山), Guangdong (廣東). Further investigations, after the diagnosis, revealed that the patient was brought to a nearby wet market by her mother but they did not buy any poultry. She had stayed in a local residence with no known poultry nearby.

Since previously identified paediatric patients infected with H7N9 influenza generally presented with milder symptoms and a clear poultry exposure history, please be aware that in some cases, such as this latest one, clear exposure to poultry may not be readily available. HCWs should also pay special attention to patients who may have had contact with poultry, birds or their droppings in affected areas and provinces. Further, to provide an earlier confirmatory diagnosis on H7N9 influenza, hospital laboratories will perform PCR for influenza tests on samples collected from paediatric patients with a travel history to affected areas, with effect from 13 March 2014 onwards.

Last Issue’s Crossword Puzzle Answers

Thank you to those who have participated in last issue’s crossword puzzle. Congratulations to the winners.

The 1st Three Winners of Crossword Puzzle

Dr. Raymond WOO, CMC RES(MG)
Ms. Gloria CHIU, PWHCND APN(ICN)
Dr. King Son LAI, AHNMED Resident (MED)

ACROSS:
1 – Cleaning
3 – Reservoir
5 – Nosocomial
6 – Surveillance
8 – Colonization
9 – Cohort

DOWN:
1 – Epidemiology
2 – Contamination
4 – Standard
7 – Contact
HOSPITAL INFECTION UPDATE

Respiratory viruses infection
Data source: Five HA laboratories (PMH, PWH, QEH, QMH, TMH)

Time frame covered (dd/mm/yyyy):
- Week 10 (02/03/2014-08/03/2014), Week 11 (up to 13/03/2014)
- Positive rate of influenza B has been increasing from 0.3% in 2013 week 47 to 6.7% in 2014 week 11 (figure 2);
- Positive rate of RSV has been increasing from 0.7% in week 7 to 3.0% in week 11 (figure 3);
- Positive rate of parainfluenza has stayed around 3-4% for eleven weeks;
- Positive rate of influenza A has been decreasing below 10% for two weeks. The rate in week 11 was 3.5% (figure 2);
- Positive rate of adenovirus was at low level.

Circulating influenza A strain
Data source: Influenza virus subtyping (by cell culture), PHLC

Time frame covered (dd/mm/yyyy):
- Week 8 (16/02/2014-22/02/2014), Week 9 (23/02/2014-01/03/2014)
- In week 8 and 9, 66.4% of the typed isolates (579/872) were subtype H1 and 33.6% (293/872) were subtype H3.

Norovirus virus infection
Data source: Cluster Reporting System

Time frame covered (dd/mm/yyyy):
- Up to week 10 (02/03/2014-08/03/2014)
- The positive rate has rebounded above 10% in the last three weeks (around 10-12%).

ICT TO NOTE (CONT’D)

Enhanced Influenza Molecular Testing in HA Laboratory for Avian Influenza A(H7N9)

In view of the mild clinical presentation of confirmed paediatric cases reported so far and the absence of poultry contact history in at least 20% of the confirmed cases reported in mainland China and at least 5 cases reported locally, Central Command Committee (CCC) approved enhanced surveillance for paediatric in-patients as an additional inclusion criteria under on-going surveillance, with effect from 13 March 2014.

Reporting criteria: any paediatric in-patient (≤ 18 years old) who presents with Influenza-like illness (ILI) and has travel history to the affected areas in the past 10 days before symptoms onset

Action required: Arrange specimens to hospital laboratory for Influenza A molecular testing (M gene, H1, H3). The turn-around-time is less than 24 hours. Continue to send sample to PHLSB as a routine practice.

If M gene is positive and H subtype 1 and 3 are negative:
1. Isolate the patient in Airborne Infection Isolation Room (AIRR) AND
2. Notify the case through eH7 AND
3. Cluster Infection Control Officer (ICO) should call MCO of CHP at 7116 3300 call 9179 & HAHO Duty Officer at 7116 3328 A/C 999 AND
4. Alert PHLSB for PCR H7 and subtyping
# Call MCO of CHP & HAHO Duty Officer if patient is under ICU care / died / close contact of a confirmed H7 case.

INFLUENZA ACTIVITY IN NORTHERN HEMISPHERE

<table>
<thead>
<tr>
<th>Continent</th>
<th>Area/Country</th>
<th>Trend</th>
<th>Intensity</th>
<th>Predominant flu strain</th>
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<td>A (H1N1) and B</td>
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<tr>
<td></td>
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<td>Canada</td>
<td>Moderate</td>
<td>A (H1N1), B increasing</td>
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Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

As of 12 March 2014, the World Health Organization (WHO) has been informed of a total of 189 laboratory-confirmed cases of infection with MERS-CoV since September 2012. Of whom 82 died and the case fatality was 43.39%.

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<td><strong>Total</strong></td>
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