Evidence-based, Public Health Response to Recent Measles Activity in Ontario

This document is current to February 2009, and is not updated. It was prepared at a time when PIDAC reported directly to the Minister of Health and Long-Term Care and Chief Medical Officer of Health. Note that effective April 1, 2011, the responsibility for and functions of the Provincial Infectious Diseases Advisory Committee ("PIDAC") were transferred to the Ontario Agency for Health Protection and Promotion ("Agency"), and that PIDAC now reports to that Agency. You may wish to consult www.pidac.ca or the Agency's website at www.oahpp.ca for more information.

Provincial Infectious Diseases Advisory Committee (PIDAC)

Recommendations and Advice
This document posted February 2009

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This fact sheet provides information for health care workers about recent measles activity in Ontario.

PIDAC Recommendations

The following recommendations refer to the passive and active immunization of contacts for disease prevention and outbreak containment and control, as well as the exclusion from defined exposure settings of individuals exposed and susceptible to measles.

- Immunoglobin (IG) may be administered to prevent illness in an individual under specific circumstances when vaccine is contraindicated, such as in the case of susceptible pregnant women and babies (under one year of age). Patients with altered immunity or who are receiving immunosuppressive therapy may also warrant IG if exposed to measles.

- When using immunoglobulin, protection from measles infection may vary from individual to individual - some may be as short as three to four weeks. Immunity testing may be useful if you want continued protection.

- Immunization or re-immunization should be postponed until at least five months after receiving IG, or six months if the individual received the high dose IG.

Recommendations about exclusion in an outbreak must be specific to the setting:

- **Workplace Setting (other than health care)**
  Contacts (defined narrowly as individuals who are in close contact within a confined airspace) should be offered vaccine, but should not be excluded from work. If contacts do become ill with measles-like illness, they should be excluded.

- **Health Care Setting**
  Susceptible health care workers who are exposed to measles must be excluded from any work in the hospital from 5 days after their first exposure until 21 days after their last exposure, regardless of whether they received vaccine or immune globulin after the exposure (OHA/OMA measles surveillance protocol).

- **Childcare Setting & Schools**
  Susceptible children should be excluded and can return to school immediately after being immunized (ISPA protocol).

Chief Medical Officer of Health Decision

The Chief Medical Officer of Health (CMOH) has reviewed the recommendations made by PIDAC and supports their recommendations.

Background

- A review by Ministry of Health and Long-Term Care staff identified some inconsistencies among public health recommendations by different health protection organizations. There were varying recommendations on when to administer IG, how long the IG protection lasts, when to follow up with active immunization, and how to contain and control the spread of measles through community exposure situations. The CMOH sought PIDAC advice.

- Measles is a highly contagious viral infection, and usually lasts about two weeks. It can be complicated by ear infections or pneumonia in one out of every 10 children with measles. Measles can also be complicated by encephalitis, an infection of the brain, in about one out of every 1,000 children with measles.

- Measles causes death in about one in 3,000 cases. Measles may cause miscarriages or premature delivery in pregnant women.

- Symptoms of measles include:
  - Fever
  - Cough and coryza
  - Conjunctivitis and photphobia
  - Koplik spots (white macular lesions on buccal mucosa and palate)
  - A red blotchy rash that starts on the head and face then spreads to the rest of the body

Selected Further Reading

Siber G.R., Werner B.G., Halsey N.A., Reid R., Almeido-Hill J., Garrett S.C., Thompson C. and M. Santosham. (1993). Interference of immune globulin with measles and rubella immunization. Journal of Pediatrics 122(2): 204-211.

American Academy of Pediatrics. Red Book: Report of the committee on infectious diseases. 27th ed. 2006: 445-452.

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