Measles case in Toronto

Toronto Public Health (TPH) has received a report of a lab-confirmed case of measles in a previously healthy, unimmunized 60 year old female (IgM positive as well as PCR positive urine and NPswab). The case reported symptoms including cough, conjunctivitis, shortness of breath, headache, abdominal pain and vomiting which began on May 2, followed by the development of a rash on May 6. The patient has a history of travel to areas of the United States where measles cases have been recently reported. TPH is continuing to investigate the source of infection. The case was infectious to others from May 2 to May 7, during which time she visited a physician's office (May 6), Sunnybrook Health Sciences Centre Emergency Department (May 6 and May 7) and was also out in public. She has been appropriately isolated since the evening of May 7. Contact follow-up is ongoing by TPH. Secondary cases of measles could develop between May 9 and May 28.

The signs and symptoms suggestive of measles include: fever, cough, coryza (runny nose), conjunctivitis, Koplik spots (punctate blue-white spots on the bright red background of the buccal mucosa), followed by a maculopapular rash which lasts about six days. Measles is highly contagious and is spread by droplets and direct contact with the nasal or throat secretions of an infected person. Measles can also be spread through the airborne route. A person with measles is infectious from four days before to four days after the onset of the rash. The incubation period is typically 10 days (range seven to 21 days). Patients suspected of having measles should wear a mask and be placed in a separate room with the door closed when attending a physician's office.

Laboratory diagnosis of measles should include both serology and virus isolation/detection. The laboratory should be notified in advance that they are testing a suspect measles case so appropriate precautions can be taken.

Virus Isolation: A nasopharyngeal swab/aspirate or throat swab in viral culture media obtained optimally within four to seven days of rash onset and 50 mL of urine collected within seven days of rash onset.

Acute Serology: A blood specimen should be obtained within seven days after the rash onset to test for IgM and IgG antibodies.

Convalescent Serology: A second blood specimen drawn > 10 days after the first to check for seroconversion or a significant rise in measles specific IgG antibodies between acute and convalescent sera. A significant rise in IgG is indicative of recent infection.

Send specimens marked "STAT" to the Public Health Laboratory-Toronto at 81 Resources Rd. Toronto, ON M9P 3T1. Laboratory requisitions should be clearly marked “suspect case of measles” to facilitate rapid testing.

TPH is asking clinicians to be vigilant in the detection and appropriate testing of anyone presenting with febrile rash illness with or without other signs and symptoms of measles. Any suspect measles cases should be immediately reported to the Medical Officer of Health by calling our surveillance unit at 416-392-7411 during work hours or at 3-1-1 after hours.

TPH has recently launched a website for Health Professionals. Please visit this website at http://www.toronto.ca/health/professionals and register to receive public health information.