State of Alaska Epidemiology **Bulletin**

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Rubeola Reminder -- Vaccinate! Vaccinate! Vaccinate!

On July 19, a Juneau pediatrician notified the Section of Epidemiology of a possible case of measles (rubeola) in a 16-year-old female California resident who was visiting relatives in Juneau.

> The girl had presented to the pediatrician with a fever of 103°F., a generalized maculopapular rash, a sore throat, cough, and conjunctivitis. Physical examination revealed the presence of Koplik spots. Measles was diagnosed and was serologically confirmed on August 2. Serum obtained from the patient on 7/19/89 had an anti-rubeola IgG antibody titer of less than 1:8 by immune adherence hemagglutination (IAHA); the anti-rubeola IgG antibody titer of serum collected on 7/28/89 was 1:128, a greater than four-fold titer rise.
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> The patient's history of vaccination against measles could not be confirmed. She had traveled by plane from California to Juneau 12 days prior to the onset of her rash. The patient's 15-year-old sister, who had remained in California, developed a rash on the same day as her sister and was also diagnosed on July 19 as having measles. Her history of measles vaccination also could not be verified.

Within 24 hours after notification of this suspected measles case, public health officials in Anchorage and Juneau identified 32 persons who had been exposed to the patient during the week before her rash appeared. Exposed individuals included the patient's household members in Juneau, other persons (including office staff) who had occupied the physician's waiting room during the patient's visits, several social contacts outside her household, and several of the staff at Bartlett Memorial Hospital. Investigators quickly ascertained the measles vaccination status of all exposed persons. Persons born before 1957 and persons with a documented history of measles vaccination at or after 15 months of age or of physician-diagnosed measles were considered immune. All others were offered immune globulin (pregnant women and children under 12 months of age) or MMR vaccine. Thirteen exposed persons without documented measles vaccination or disease were vaccinated within 3 days of exposure. Four exposed individuals who were offered MMR vaccine or immune globulin declined.

Only one possible secondary case of measles was identified. This was an unimmunized 18-month old child exposed to the index case in the physician's waiting room on July 19 who received MMR vaccine on July 21. She developed fever and a facial rash during the second week after exposure. On August 4 the child had a cough, lethargy, and anorexia; examination revealed a fever of 103°F., a generalized maculopapular rash, and Koplik spots. The diagnosis of measles in this child cannot be serologically confirmed, since vaccination with measles vaccine elicits the same antibody response as measles disease.

These two measles cases are the first to be reported in Alaska during 1989. Only four Alaskan cases have been reported in the last five years (1984-88), despite a steady increase in national measles morbidity. During the first seven months of 1989, the National Centers for Disease Control received reports of 2889 measles cases from Texas, 1309 from California, 661 from Ohio, and 684 from Illinois. We believe the index case described in this report was infected in San Bernardino County, California, where a large measles outbreak was in progress in July. Health care providers should be aware of the potential for importation of measles into Alaska from the Lower 48 and from foreign countries.

Any case of febrile rash illness suspected of being measles or rubella should be reported to the Section of Epidemiology (561-4406) immediately so that we can assist with confirmation of the diagnosis and take measures to prevent transmission.

The Section of Epidemiology will arrange for serologic testing free of charge to patients with suspected measles. Testing requires a minimum of 2 cc of serum. Two serum specimens--one obtained early in the illness, the other drawn 10-14 days later--are necessary for serologic confirmation.

In outbreak situations, live measles vaccine (administered, preferably, as MMR vaccine) can prevent disease if given within 72 hours of exposure. Immune globulin (IG)--administered intramuscularly in a dose of 0.25 ml/kg (maximum, 15 ml)--may prevent or modify disease and provide temporary protection if given within 6 days of exposure. IG is recommended especially for the following exposed individuals: children under 1 year of age, unimmunized pregnant women, and immunosuppressed or immunodeficient persons. Unimmunized persons who receive IG as prophylaxis against measles should be given live measles vaccine (as MMR) 3 months later if there is no contraindication to the vaccine and the individual is at least 15 months old.