

Synopsis of Alaska State HD Measles Case Talking Points (Last Updated 2/27/25)

What is Measles?

Measles is a highly contagious respiratory infection that primarily affects children, although it can occur in adults as well.

It is caused by the measles virus and spreads through the air

- Early symptoms include a high fever, cough, runny nose, and red eyes
 - A few days later, a characteristic red, blotchy rash usually appears, starting on the face and spreading to the rest of the body
- Measles can lead to serious complications, especially in young children and those with weakened immune systems
 - Pneumonia, brain inflammation, and even death can occur in some cases
- Measles can be prevented with the MMR vaccine, which is safe and highly effective
 - Vaccination has significantly reduced the number of measles cases globally, but outbreaks still occur, often in areas with low vaccination rates

Route of Infection

- Spreads through **respiratory droplets** (coughs, sneezes) and through **airborne particles**; **Can remain viable while floating in the air for up to 2 hours**

Incubation Period: 7–21 days (average, 12–14 days for rash onset)

Communicability: 4 days before the rash appears until 4 days after the rash appeared

Complications

- Measles can lead to serious complications, including:
 - **Pneumonia**
 - **Encephalitis:** 1/1,000 cases; often leads to permanent neurological damage
 - **Death:** 1–3 of every 1,000 infected children
 - **Subacute sclerosing panencephalitis (SSPE)**, a rare, progressive, and fatal brain disease that can occur *after infection*.
 - Seizures develop 7–10 years after infection.
 - Behavioral and intellectual deterioration.
- Infants, pregnant women, and immunocompromised individuals are at higher risk for complications.

Immunity

- After infection, individuals typically have **lifelong immunity** to measles.
- The **MMR vaccine** provides strong protection, with **97% effectiveness** after two doses. A **single dose** of MMR is **93%** effective. Vaccinated individuals are less likely to experience severe disease.

Treatment

- There is no **specific antiviral treatment** for measles. Treatment focuses on **symptom management**, including:
 - Fever reduction (e.g., acetaminophen or ibuprofen)
 - Hydration and rest
 - Managing cough and congestion
- For those with severe complications (e.g., pneumonia), **hospitalization** may be required.
- For **children**, treatment with **Vitamin A** may reduce the severity of complications.
- **Measles immunoglobulin (Ig)** can be given as **post-exposure prophylaxis** to high-risk individuals (infants, pregnant women, immunocompromised) within 6 days of exposure.

Isolation and Quarantine

- **Isolation:** Suspected cases should be promptly isolated until 4 days after rash onset.
- **Quarantine:** Close contacts without prior immunity who have been exposed to a measles patient during the patient's infectious period (starting 4 days before through 4 days after rash onset) should quarantine starting on day 7 after first exposure and ending 21 days after their last exposure to an infected person.

Vaccination:

Children should receive 2 doses of MMR vaccine

- First dose at 12–15 months
- Second dose at 4–6 years
- *Infants aged 6–11 months who are traveling can get an early dose*
- Adults without evidence of immunity should get one dose of MMR vaccine
 - Adults with HIV infection and CD4 >200 c/uL for ≥6 mo should get 2 doses
- **Herd immunity:** vaccination coverage of at least **95%** prevents measles outbreaks
- Measles vaccines have been in use for >50 years