Measles in New Hampshire: UPDATE

Key Points and Recommendations:

1. We previously notified healthcare providers of a child from the Keene, NH area who was diagnosed with measles on Friday 5/17 after presenting with measles compatible symptoms with a nasopharyngeal swab that was PCR+ for the measles virus: [https://www.dhhs.nh.gov/dphs/cdcs/alerts/documents/measles-confirmed-052019.pdf](https://www.dhhs.nh.gov/dphs/cdcs/alerts/documents/measles-confirmed-052019.pdf).

2. We discovered that the child had received the MMR vaccine 5 days before onset of their symptoms so we sent the nasopharyngeal swab to a public health reference lab for expedited specialized genotype testing for virus strain identification. Awaiting this result, we elected to identify and protect exposed susceptible individuals due to the short window of time for post-exposure prophylaxis (PEP).

3. Testing has returned showing the child was positive for vaccine-strain measles virus (genotype A).

4. Vaccine-strain measles can occasionally be identified post-vaccination but it is not transmissible person-to-person. Therefore, the public is not at risk for measles from this child: [https://www.sciencedirect.com/science/article/pii/S0264410X16300895](https://www.sciencedirect.com/science/article/pii/S0264410X16300895).

5. There is no measles known to be circulating in NH communities; however, given the unprecedented increase in measles nationally, healthcare providers need to continue to ensure their patients are vaccinated according to evidence-based recommendations: [https://www.cdc.gov/measles/hcp/index.html](https://www.cdc.gov/measles/hcp/index.html).

Background:
Measles was declared eliminated in the United States in 2000, but due to low vaccination rates in some communities, measles has been making a resurgence. For 2019, at least 880 cases of measles in the United States have already been reported from 24 different states ([https://www.cdc.gov/measles/cases-outbreaks.html](https://www.cdc.gov/measles/cases-outbreaks.html)).

The best protection against measles is the MMR vaccine. The MMR vaccine is a live-attenuated vaccine and like all vaccines, there can be side effects. Most side effects are mild and include self-limited local injection site reactions. About 5% of individuals vaccinated with the MMR vaccine develop a fever and rash reaction. More serious or extensive reactions that resemble a wild-type measles virus infection, as was seen in this child, are very rare. The scientific literature has found no confirmed cases of human-to-human transmission of the vaccine strain of the measles virus. Over the last five years, close to 50,000 doses of the MMR vaccine have been administered to NH children without a reaction reported to the New Hampshire Division of Public Health Service (NH DPHS) like was seen in this child.

The CDC recently hosted a Clinician Outreach and Communication Activity (COCA) webinar about measles. The slides and transcript can be found here: [https://emergency.cdc.gov/coca/calls/2019/callinfo_052119.asp](https://emergency.cdc.gov/coca/calls/2019/callinfo_052119.asp).
Presumptive Evidence of Measles Immunity:
Persons can be presumed to have immunity to measles if any of the following criteria apply:
- Written documentation of adequate vaccination:
  - one or more doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk
  - two doses of measles-containing vaccine for school-age children and adults at high risk, including college students, healthcare personnel, and international travelers
- Laboratory evidence of immunity
- Laboratory confirmation of measles
- Birth before 1957 (note: this criteria does not apply to healthcare workers)

MMR Vaccine Routine Recommendations:
- Children 12 months of age or older should have 2 doses, the first dose at age 12-15 months of age and the second dose between 4-6 years of age.
- Adults who do not have presumptive evidence of immunity (see above) should get at least one dose of MMR vaccine (high-risk adults need two-doses, unless they have other presumptive evidence of immunity)
- Certain high-risk persons should receive two doses of MMR. This includes healthcare personnel, students at post-secondary institutions, and international travelers.

For additional information on measles and the MMR vaccine please refer to the ACIP MMR vaccine recommendations: http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf
For any questions regarding this notification, please call the NH DHHS, DPHS, Bureau of Infectious Disease Control at (603) 271-4496 during business hours (8:00 a.m. – 4:30 p.m.).

If you are calling after hours or on the weekend, please call the New Hampshire Hospital switchboard at (603) 271-5300 and request the Public Health Professional on-call.

To change your contact information in the NH Health Alert Network, contact Adnela Alic at (603) 271-7499 or email Adnela.Alic@dhhs.nh.gov.