New Jersey Department of Health
Vaccine Preventable Disease Program
Measles Clinical FAQs

Date: June 14, 2013

2013 MEASLES ALERT

NOTE: All new and/or updated information is highlighted and noted with asterisks (**).

RECENT MEASLES CASES IN NJ

Q: Are there reports of measles infection in NJ?

A: To date for 2013, NJDOH has 3 confirmed cases and 3 cases under investigation.

NJDOH investigates all confirmed or suspected cases of measles within New Jersey. In addition, NJDOH receives notifications from other health authorities of cases of laboratory-confirmed measles with NJ contacts. New Jersey residents have been exposed to laboratory-confirmed cases while in other states, while traveling internationally and while interacting with travelers. NJDOH has worked with local health authorities to notify these contacts, assess immunization status and quarantine susceptible individuals as appropriate.

Q: Is there currently a measles outbreak in the U.S. or in other countries?

A: Normally, the U.S. sees about 60 cases of measles per year. But in 2011, the number of reported cases was higher than usual – 222 people had measles. Nearly 40% of these people got measles in other countries, including Europe and Asia. They brought it to the U.S. and spread it to others, causing 17 measles outbreaks across the U.S.

In 2011, NJ also experienced an increase in measles cases. NJ experienced 4 confirmed and 3 probable cases (confirmed cases only

are reported to CDC). In addition to the cases, NJDOH was notified by other health authorities of numerous laboratory-confirmed measles occurring in other jurisdictions with numerous NJ contacts. NJDOH worked closely with local health authorities to notify those contacts, assess immunization status, and quarantine susceptible individuals as appropriate to prevent further spread of the disease. In 2012, the number of NJ cases decreased, only 2 confirmed cases were reported.

More recently, the New York City Department of Health and Mental Hygiene (DOHMH) released a public health alert. There continues to be ongoing measles transmission among the Orthodox Jewish communities in Borough Park and Williamsburg, Brooklyn. To date, there have been 55 confirmed cases. Additional suspected cases are being investigated. All cases were in persons who were unvaccinated at the time of exposure, because they were too young to have been vaccinated or because their parents delayed or refused vaccine for their children. Over 2,000 identified people have been exposed to measles in households (through relatives or friends), apartment buildings, and medical provider offices. Additional cases are expected to be identified.

The increased number of measles importations into the United States in 2011 and 2013 and the ongoing measles outbreak in New York City underscores the importance of vaccination to prevent measles and its complications.

DESCRIPTION OF MEASLES

Q: What is measles?

A: Measles is a very contagious respiratory disease caused by a virus. The disease of measles and the virus that causes it share the same name. The disease is also called rubeola. Measles virus normally grows in the cells that line the back of the throat and lungs.

Before vaccine was available, it was a common childhood disease in the United States and is considered the most deadly of all childhood rash/fever illnesses. It is still common in areas of the world where there are unvaccinated populations.

Q: What are the symptoms of measles?

A: Measles is characterized by:

- A prodrome lasting 2-4 days, including fever (peaks at 103°F-105°F), followed by cough, coryza, or conjunctivitis.
- The presence of Koplik's spots (blue-white spots) on the buccal mucosa from 2 days before to 2 days after rash onset.
- Maculopapular rash lasting 5-6 days, which begins at the hairline and progresses downward and outward to the hands and feet. The rash fades in the same order it appears.
- Other symptoms include anorexia, diarrhea, and generalized lymphadenopathy.

Q: What is the public health case definition for measles?

A: An acute illness characterized by:

- Generalized, maculopapular rash lasting ≥3 days; **and**
- Temperature ≥101°F or 38.3°C; **and**
- Cough, coryza, or conjunctivitis.

Q: What are the laboratory criteria for diagnosis?

A: Laboratory diagnosis of measles is established by:

- Isolation of measles virus* from a clinical specimen; or
- Detection of measles-virus specific nucleic acid‡ from a clinical specimen using polymerase chain reaction; or
- IgG seroconversion‡ or a significant rise in measles immunoglobulin G antibody‡ using any evaluated and validated method; or
- A positive serologic test for measles immunoglobulin M antibody‡§

  * Identification of measles genotype by RT-PCR and sequencing by CDC from clinical samples confirms infection.
  ‡ Not explained by MMR vaccination during the previous 6-45 days.
  § Not otherwise ruled out by other confirmatory testing or more specific measles testing in a public health laboratory.

Q: What are the public health case classifications?

A: The 2013 public health case classifications are as follows, and are available at http://wwwn.cdc.gov/NNDSS/script/casedef.aspx?CondYrID=908&DatePub=1/1/2013%2012:00:00%20AM

Confirmed: An acute febrile rash illness† with:

- Isolation of measles virus‡ from a clinical specimen; or
- Detection of measles-virus specific nucleic acid‡ from a clinical specimen using polymerase chain reaction; or
- IgG seroconversion‡ or a significant rise in measles immunoglobulin G antibody‡ using any evaluated and validated method; or
- A positive serologic test for measles immunoglobulin M antibody‡§; or
- Direct epidemiologic linkage to a case confirmed by one of the methods above.

Probable: In the absence of a more likely diagnosis, an illness that meets the clinical description with:

- No epidemiologic linkage to a laboratory-confirmed measles case; **and**
- Noncontributory or no measles laboratory testing.

Possible/Suspect: There is no longer any case definition used to define possible/suspect measles.

† Temperature does not need to reach ≥101°F/38.3°C and rash does not need to last ≥3 days.
‡ Not explained by MMR vaccination during the previous 6-45 days.
§ Not otherwise ruled out by other confirmatory testing or more specific measles testing in a public health laboratory.

Q: How serious is the disease?

A: Measles itself is unpleasant, but the complications are dangerous. Six to 20 percent of the people who get the disease will get an ear infection, diarrhea, or even pneumonia. One out of 1000 people with measles will develop inflammation of the brain, and about one out of 1000 will die.

Q: How is the measles virus transmitted?

A: Measles is a highly contagious disease that is transmitted by respiratory droplets and airborne spread. When an infected person talks, coughs, or sneezes, the virus is released into the air and enters another person's body through the nose, mouth or throat. People can also become sick if they come in contact with the mucus or saliva from an infected person. The measles virus can live on infected surfaces or hang in the air for up to two hours.

In health care settings, airborne infection control precautions should be followed stringently (available at http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html).

Q: How contagious is measles?

A: Measles is one of the most contagious diseases. Ninety percent (90%) of susceptible people will be infected after coming in contact with someone with measles.

Q: What is the incubation period and period of infectiousness?

A: The incubation period is the time between being exposed to the measles virus and the appearance of the first symptoms. The incubation period for measles ranges from 5 to 21 days. Persons with measles are considered infectious for about 4 days before their rash starts through 4 days afterwards.

MEASLES VACCINATION

Q: How can measles be prevented?

A: Measles is a vaccine-preventable disease. Getting vaccinated against measles will protect people from getting the disease. The measles vaccine is given in combination with the vaccines for mumps and rubella. This vaccine (MMR) follows a two-dose schedule (one shot at 12 months and a second shot at four to six years of age). However, the second dose of MMR can be given anytime as long as it is at least four weeks after the first dose.

Another option is the MMRV vaccine (MMR plus varicella [chickenpox] vaccine). MMRV is only licensed for use in children between the ages of 12 months through 12 years. MMRV can only be given through age 12 years and should be separated from a previous dose of varicella-containing vaccine by 12 weeks.

Because there is ongoing measles transmission in other countries, the Centers for Disease Control and Prevention is recommending that children 6 through 11 months of age receive the MMR before traveling. If you are made aware that your patients will be traveling outside the US, please ensure that they are up to date with current vaccine recommendations.

Q: If I give MMR to an infant traveler younger than age 1 year of age, will that dose be considered valid for the U.S. immunization schedule?

A: No. A measles-containing vaccine administered before the first birthday should not be counted as part of the series. MMR should be repeated when the child is age 12 to 15 months of age (12 months if the child remains in an area where disease risk is high). The second dose should be administered at least 28 days after the first dose. To clarify, this child would receive a total of 3 doses since the dose prior to 12 months would not be considered valid.

Q: If my patient receives a second dose of MMR before he turns 4 as part of outbreak control, will he need a third dose to comply with NJ Immunization Requirements?

A: Due to the large increase of measles cases in the US, physicians may consider administering the second dose of MMR vaccine to children aged 13 months to 4 years who have received one dose instead of waiting to administer at 4 – 6 years of age, ensuring that the second shot is given a minimum of four weeks after the first. Receipt of 2 valid MMR vaccines administered in accordance with ACIP recommendations will meet the minimum requirements for attendance in kindergarten as outlined in N.J.A.C. 8:57 - 4.

NJ requires that students receive 1 dose of rubella, 1 dose of mumps, and 2 doses of measles. The requirement for measles is stated in the Minimum Immunization Requirements Table For School Attendance In New Jersey available at http://www.nj.gov/health/forms/imm.pdf as:

"Any child over 15 months of age entering child care, pre-school, or pre-Kindergarten needs a minimum of 1 dose of measles vaccine. Any child entering Kindergarten needs 2 doses. Intervals between first and second measles-containing vaccine doses cannot be less than 1 month. Laboratory evidence of immunity is acceptable."

Therefore, they will be in compliance and will not need a third dose of MMR for school attendance if the first dose is given at or after the first birthday and a second dose of MMR is administered prior to age 4 observing appropriate minimal interval.

Q: How effective is the measles vaccine?

A: Measles vaccine (MMR vaccine or MMRV vaccine) is very effective and is the best way to prevent measles. Measles vaccine effectiveness has been estimated at ~95% for one dose and ~99% for two doses.

Q: Why are two doses of measles vaccine recommended?

A: About 5 percent of people do not develop immunity after getting the first shot. Therefore, it is recommended that everyone get a second shot. After two doses, more than 99% of people will be protected.

Q: Will getting an extra dose of measles vaccine be harmful?

A: No. Although, CDC does not routinely recommend more than 2 doses of MMR vaccine, there is no harm in administering an additional dose of vaccine if you are unsure of your patient's vaccine history.

Q: How is this vaccine given?

A: This vaccine is given by subcutaneous injection, meaning that the vaccine is deposited just under the skin and not deep into the muscle.

Q: Can MMR be given on the same day as other live virus vaccines (e.g., varicella)?

A: Yes. However, if two live vaccines (e.g., MMR, varicella, and LAIV) are not administered on the same day, they should be separated by an interval of at least 28 days.

Q: What are the side effects from the MMR and MMRV vaccines?

A: Mild side effects are fever, mild rash, and, rarely, lymphadenopathy. Moderate and severe side effects are rare.

The first dose of MMRV vaccine has been associated with rash and higher rates of fever than MMR and varicella vaccines given separately. Rash has been reported in about 1 person in 20 and fever in about 1 person in 5. Seizures caused by a fever are also reported more often after MMRV. These usually occur 5-12 days after the first dose.

Getting vaccinated is much safer than getting measles.

Q: Who should NOT receive measles vaccine?

A: Anyone who experiences a severe allergic reaction (e.g., hives, swelling of the mouth or throat, difficulty breathing) following the first dose of MMR should not receive a second dose.

Pregnant women should not receive the MMR vaccine, and pregnancy should be avoided for four weeks following vaccination with MMR. While there is no evidence that the measles vaccine causes fetal damage, women are advised not to receive the MMR vaccine during pregnancy as a safety precaution based on the theoretical possibility of a live vaccine causing disease.

Severely immunocompromised persons should not be given MMR vaccine. This includes persons with a variety of conditions, including congenital immuno-deficiency, leukemia, lymphoma, generalized malignancy, or those undergoing immunosuppressive therapy

For more information about administering MMR to HIV-infected individuals please visit:
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm?s_cid=rr6204a1_e

Q: Can individuals with an egg allergy receive MMR vaccine?

A: In the past it was believed that persons who were allergic to eggs would be at risk of an allergic reaction from the vaccine because the vaccine is grown in tissue from chick embryos. However, recent studies have shown that this is not the case. Therefore, MMR may be given to egg-allergic individuals without prior testing or use of special precautions.

Q: Can I administer the MMR or MMRV to a patient who has a family member who is immunocompromised or is pregnant?

A: Yes. It is safe to receive the vaccine if you live with someone who is pregnant or immunocompromised.

Q: Does the MMR vaccine cause autism?

A: No. Studies have shown that MMR vaccine does **not** cause autism. The question about a possible link between MMR vaccine and autism has been extensively reviewed by independent groups of experts in the U.S. including the National Academy of Sciences' Institute of Medicine. These reviews have concluded that the available epidemiologic evidence does not support a causal link between MMR vaccine and autism.

The MMR-autism theory had its origins in research by Andrew Wakefield and colleagues in England. They suggested that inflammatory bowel disease (IBD) is linked to persistent viral infection. In 1993, Wakefield and colleagues reported isolating measles virus in the intestinal tissue of persons with IBD. The validity of this finding was later called into question when it could not be reproduced by other researchers. In addition, the findings were further discredited when an investigation found that Wakefield did not disclose he was being funded for his research by lawyers seeking evidence to use against vaccine manufacturers. In February 2010, the British medical journal, The Lancet, retracted Dr. Wakefield's 1998 research paper and his work is considered fraudulent. Dr. Wakefield has lost his license to practice medicine.

The retracted article by Wakefield and interviews with celebrities citing anecdotal reports of autism following vaccination have received a lot of attention by the media. However, many well-designed scientific

studies appearing in peer-reviewed journals have consistently failed to show a causal relationship between MMR vaccine and autism.

STORAGE AND HANDLING

Q: What are the storage and handling protocols for MMR and MMRV?

A: MMR vaccine can be stored either in the freezer or the refrigerator and should be protected from light at all times. If MMR is stored in the refrigerator, the temperature must be maintained between 35° to 46°F (2° to 8° C). MMRV vaccine should be stored frozen between -58°F and +5°F (-50°C to -15°C). When MMR vaccine is stored in the freezer, the temperature should be the same as that required for MMRV, between -58°F and +5°F (-50°C to -15°C). Storing MMR in the freezer with MMRV may help prevent inadvertent storage of MMRV in the refrigerator. Diluent may be stored at refrigerator temperature or at room temperature. After reconstitution, diluent may be stored at refrigeration temperature or at room temperature. If reconstituted vaccine is not used within 8 hours, it must be discarded. MMRV must be administered within 30 minutes of reconstitution.

Q: Why is it important to store the vaccine correctly?

A: MMR and MMRV are live-attenuated vaccines. The viruses must be kept cold in order to remain viable to induce an immune response. If the vaccines are stored incorrectly, they might be less effective and leave individuals unprotected.

Q: Is it dangerous to receive a vaccine that was stored at an inappropriate temperature?

A: No. The vaccine is not harmful but might not be effective.

Q: If I administer a vaccine and later find out that it was not stored appropriately, what should I do?

A: You should check with the manufacturer to see if they recommend revaccination.

EXPOSURE AND RESPONSE

Exposed Persons

Q: If someone is exposed to measles, would the vaccine prevent the disease? Is there anything else available for people who were exposed?

A: If the person has not been vaccinated, measles vaccine may prevent disease if given within 72 hours of exposure. Immune globulin (a blood product containing antibodies to the measles virus) may prevent or lessen the severity of measles if given within six days of exposure. Certain people, especially who are immunocompromised or children less than 1 year of age might benefit from immune globulin. Your healthcare provider can best provide advice to you after an exposure.

Q: Is it true that the ACIP recently changed its definition of evidence of immunity to measles, rubella, and mumps? Please explain.

A: At its October 2012 meeting, ACIP voted to include "laboratory confirmation of disease" as evidence of immunity for measles, mumps, and rubella. ACIP voted to remove "physician diagnosis of disease" as evidence of immunity for measles and mumps. "Physician diagnosis of disease" had not previously been accepted as evidence of immunity for rubella. With the decrease in measles and mumps cases over the last 30 years, the validity of physician-diagnosed disease has become questionable. In addition, documenting history from physician records is not a practical option for most adults.

Please note that provisional ACIP recommendations become CDC recommendations once they are accepted by the director of CDC and the Secretary of Health and Human Services and are published in *MMWR*.

For more information, please visit
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm?s_cid=rr6204a1_e

Q: What are the recommendations for proof of immunity for health care personnel?

A: Health care facilities may want to review their current policies regarding acceptable proof of immunization of health care personnel.

All persons who work in health-care facilities should have presumptive evidence of immunity to measles. This information should be documented and readily available at the work location. Recently vaccinated health care personnel do not require any restriction in their work activities.

Presumptive evidence of immunity to measles for persons who work in health-care facilities includes any of the following:

- written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart
- laboratory evidence of immunity
- laboratory confirmation of disease

Adults born before 1957 are likely to have had measles and/or mumps disease as a child and are generally (but not always) considered not to need vaccination. **However, facilities should vaccinate health care workers born before 1957 who lack laboratory evidence (e.g., blood test) of measles, mumps, and rubella immunity or laboratory confirmation of previous disease with MMR vaccine. These facilities should vaccinate health care workers with MMR during an outbreak of any of the diseases, regardless of birth date.**

Please view the MMWR for the ACIP/CDC current recommendations:

http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf

Q: What if my patient's immune status is unknown?

A: You may order a measles IgG test to determine if your patient has immunity to measles.

People without proof of immunity who have been exposed to measles will need to stay at home (quarantine) from day 5 through day 21

following exposure (or until a positive measles IgG test result is available). Exact dates depend on the date(s) of exposure. For example, if a person was exposed on 6/3/13, he/she will need to stay at home from 6/8 through 6/24/13. Your local health department can assist you with determining correct dates for quarantine.

Symptomatic Persons

Q: What do I do if a patient calls/arrives complaining of measles symptoms?

A: If time permits, special arrangements should be made for symptomatic patients to be evaluated without putting other patients or medical office staff at risk. Staff with known immunity to measles should be identified to assist. Because measles can hang in the air for up to two hours, it is advisable that the patient be seen as the last patient of the day, use a separate entrance, and be placed in isolation immediately upon arrival.

If a patient arrives unannounced to your office complaining of fever and rash, it is advisable that they be removed from waiting areas as soon as they are identified, placed in a private room with the door closed, and asked to wear a surgical mask, if tolerated. Staff should wear a particulate respirator if one is available and they have been appropriately fit-tested. Since measles is airborne, the virus can travel through the ventilation system and might infect others not in direct contact with the ill individual.

In hospital settings, patients with suspected measles should be placed immediately in an airborne infection (negative-pressure) isolation room if one is available and, if possible, should not be sent to other parts of the hospital for examination or testing purposes.

Use of any room or area where a suspected measles case has been should be avoided for at least two hours after the patient has left.

Take a detailed history to determine the individuals travel history, contact with travelers, vaccination status, and detailed history of present illness including symptoms, symptom onset dates and rash progression.

Q: Should actions be taken after a measles case visits a doctor's office?

A: If measles exposures occur in a health-care facility, all contacts should be evaluated immediately for presumptive evidence of measles immunity. Due to the greater opportunity for exposure, health care personnel (HCP) are at higher risk than the general population for becoming infected with measles. HCP without evidence of immunity should be offered the first dose of MMR vaccine and excluded from work from day 5–21 following exposure. HCP without evidence of immunity who are not vaccinated after exposure should be removed from all patient contact and excluded from the facility from day 5 after their first exposure through day 21 after the last exposure, even if they have received postexposure intramuscular immune globulin of 0.25 mL/kg (40 mg IgG/kg). Those with documentation of 1 vaccine dose may remain at work and should receive the second dose.

Make a list of all individuals in the office at the time the patient with suspected/confirmed measles was present in the office and for 2 hours after the patient leaves. This list should include patients, individuals accompanying patients, staff, delivery persons, and vendors. Public health officials will work with you to ensure that everyone is notified, immune status assessed and public health protective measures initiated.

CLINICAL MANAGEMENT AND SPECIMEN COLLECTION

Q: Who should be tested for suspected measles infection?

A: Specimens should be obtained from every person with a clinically suspected case of measles. As with any disease, lab work should be used in conjunction with clinical presentation (signs and symptoms).

Q: What specimens should be collected from patients meeting the clinical case definition?

A: Blood and viral specimens should be collected as soon as possible after rash onset. Blood should be sent for IgG and IgM. However, 30% of serum samples obtained in the first 72 hours after rash onset in a susceptible individual may give false-negative results. Negative

results from serum collected in the first 72 hours after rash onset should be confirmed with a second serum obtained 72 hours or longer after rash onset, if clinically indicated. IgM is detectable for at least 30 days after rash onset and frequently longer.

Serology may be difficult to interpret in an individual who has been previously vaccinated or who received post-exposure vaccination or immunoglobulin which is why viral isolation is critical in these individuals. Blood for serologic testing is collected by venipuncture. Centrifuge the tube to separate serum from clot.

Clinical specimens for viral isolation should be collected at the same time as samples taken for serologic testing. Because the virus is more likely to be isolated when the specimens are collected within 3 days of rash onset, collection of specimens for virus isolation should not be delayed until serologic confirmation is obtained. Clinical specimens should be obtained within 7 days, and not more than 10 days, after rash onset. A detailed protocol for collection of specimens for viral isolation is available on the CDC website at: http://www.cdc.gov/measles/lab-tools/rt-pcr.html

Q: What are the preferred specimens for viral isolation of measles?

A: Throat or nasopharyngeal (NP) swabs are generally the preferred sample for virus isolation or RT-PCR detection. Urine samples may also contain virus and when feasible to do so, collection of both respiratory and urine samples can increase the likelihood of detecting virus. Collect samples as soon after rash as possible. The samples should be collected at the first contact with a suspected case of measles when the serum sample for diagnosis is drawn. Measles virus isolation is most successful when samples are collected on the first day of rash through 3 days following onset of rash; however, it is possible to detect virus up to day 7 following rash onset.

Synthetic swabs (dacron) are preferred over cotton swabs, which may contain substances that are inhibitory to enzymes used in RT-PCR. Flocked synthetic swabs appear to be more absorbent and elute samples more efficiently. Wooden swabs and calcium alginate swabs should be avoided. Swabs should be placed in 2 ml of standard, commercially available viral transport medium (VTM). Cell culture medium (minimal essential medium or Hanks' balanced salt solution)

can be used. If VTM is not available, use sterile isotonic solution (e.g. phosphate buffered saline).
[http://www.cdc.gov/mumps/lab/specimen-collect.html [1]]
Place the swab in 1 - 3 ml of sterile saline in a sterile container for transport. You can use a blood collection tube that contains no gels or other agents for transport or a sterile urine collection container. Place the specimens in the refrigerator until ready for transport. Keep samples cold (4C). If there is more than 1 day delay in shipping the samples to the state lab or CDC for testing, the throat swab or NP swab is best preserved at -70C. Ship the viral specimens using ice packs or dry ice*. Avoid freeze-thaw cycles.

*If shipment contains both serum and viral samples, ship together by overnight service on cold packs (do not freeze serum).

PLEASE NOTE: Instructions for transport of viral specimens will be provided by public health authorities when you call to immediately report the suspect case of measles. Do not send specimens directly to CDC.

LABORATORY RESULTS

Serology

- IgM: Measles is confirmed using measles IgM antibody testing of serum samples collected as soon as possible after symptom onset for IgM testing. A positive IgM test result indicates current/very recent infection or vaccination. As with any lab test, there can be false positive test results. If the suspected case has received one or more doses of MMR, the IgM response may be missing, delayed, or transient. If the acute IgM is negative, a second serum specimen should be collected. This second specimen should be tested for IgM as a delayed IgM response has been reported to have occurred.

- IgG: IgG alone is not diagnostic unless you obtain both an acute (can be done as soon after onset as the patient is seen, but ideally >3 days after onset of symptoms) and convalescent (from 10 to 30 days after onset) blood specimen for serologic tests to determine if a four-fold rise in IgG antibody titer has occurred (e.g., from 1:40 to 1:320).

  In vaccinated persons, the existing IgG will begin to rise soon after exposure and infection. At the time of onset of symptoms

and collection of the acute serum, the IgG may already be quite elevated, which would obviate the 4-fold rise in titer expected when comparing acute and convalescent samples.

Q: If the suspected case has a positive IgG and negative IgM result, can measles infection be ruled out?

A: In an outbreak setting, no. Previously vaccinated persons who are exposed to measles might have existing, detectable serum IgG.

Q: A sample tests negative for measles RNA by RT-PCR or negative for negative virus by isolation. Do these results rule out measles infection?

A: No. These samples could be negative because the amount of virus shed at the time of sample collection was very low. Inadequate specimen collection, processing, shipping or storage can also significantly reduce the likelihood of detecting measles virus or measles RNA. Among symptomatic persons who have received 1 or more doses of MMR or who received post-exposure vaccination or immunoglobulin, the virus may be cleared rapidly.

REPORTING

Q: Is measles a reportable condition?

A: YES. All suspect or confirmed cases of measles are reportable IMMEDIATELY to the local health department where the case resides, as per N.J.A.C. 8:57, which can be accessed at http://www.nj.gov/health/cd/reporting.shtml

A directory of local health departments can be found at: http://nj.gov/health/lh/directory/lhdselectcounty.shtml
If unable to reach your local health department, notify the NJDOH Vaccine Preventable Disease Program (VPDP) at regular business hours at 609-826-4860. If after-hours or on the weekend, call NJDOH at 609-392-2020. If measles is suspected, the VPDP can offer guidance on the appropriate clinical specimens to obtain and facilitate transport of specimens to the Public Health and Environmental Laboratories (PHEL), as appropriate.

Q: Why should I report suspected cases? Why can't I just wait for confirmation?

A: People can be infectious with measles before they develop symptoms and it can take several days before tests results are available. Measles is highly infectious. By the time infection is confirmed, contacts may already be spreading the infection to others. Therefore, it is very important to report and work with public health authorities as soon as you suspect measles to ensure that contacts are identified, immune status assessed and public health protective measures (e.g., vaccination within 72 hours, immune globulin administered in 6 days and quarantine of susceptibles) are implemented in a timely manner.

Q: Where can I get more information on measles?

A: For further information, contact:

- Your health care provider
- Your local health department
- NJ Department of Health
  www.nj.gov/health
- Centers for Disease Control & Prevention:
  http://www.cdc.gov/measles/index.html

This information is intended for educational purposes only and is not intended to replace consultation with a health care professional.