



GUAM PUBLIC HEALTH LABORATORY GUIDELINES ENTEROVIRUS D68 (EV-D68)

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| Background And Symptoms | <p>Enterovirus D68 has been previously referred to as Human Enterovirus 68 or human rhinovirus 87. The D stands for enterovirus species D. Enterovirus D68 is one of more than 100 non-polio enteroviruses, first identified in California in 1962.</p> <p>EV-D68 can cause infections with mild to severe respiratory illness, or no symptoms at all.</p> <ul style="list-style-type: none">• Mild symptoms may include fever, runny nose, sneezing, cough, and body and muscle aches.• Severe symptoms may include wheezing and difficulty breathing. <p>Enteroviruses can also cause acute neurologic disease in children. They can cause aseptic meningitis, encephalitis and acute myelitis and paralysis.</p> |
| People at Risk | <p>Infants, children and teenagers are generally at risk of getting infected and become sick.</p> <p>Children with asthma may have higher risk for severe respiratory illness caused by EV-D68.</p> |
| Mode of Transmission | <p>The virus can be found in the infected person's respiratory secretions: saliva, nasal mucus or sputum.</p> <p>Enteroviruses can spread from person to person when an infected person coughs, sneezes or touches contaminated surfaces.</p> |
| Prevention | <p>There are no vaccines for preventing EV-D68 infections.</p> <p>Protect yourself from any respiratory illnesses by:</p> <ul style="list-style-type: none">• Washing hands often with soap and water for 20 seconds, especially after changing diapers• Avoid touching eyes, nose and mouth with unwashed hands.• Avoid kissing, hugging, and sharing cups or eating utensils with people who are sick.• Disinfect frequently touched surfaces, such as door knobs and toys. <p>People with asthma should take medicines and follow guidance to maintain control of their illness at this time, and have annual influenza vaccination. Ensure that the patient has an asthma plan. Reinforce use of this plan, including adherence to prescribed long-term control medication. Encourage people with asthma who are experiencing an exacerbation to seek care early.</p> |

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| Diagnosis | <p>Clinicians should test for other causes of respiratory illness such as Influenza, Respiratory Syncytial Virus (RSV) and Enterovirus (through Viral culture) first before considering EV-D68 testing.</p> <p>EV-D68 can be diagnosed through molecular typing of enteroviruses when the specimen tests positive for Enterovirus.</p> <p>NOTE: Clinicians should only consider EV-D68 testing for patients with acute, severe respiratory illness and when the cause is unclear, even if the patient has no fever.</p> |
| Specimen Requirements For EV-D68 Molecular Typing | <p>Respiratory Specimens:</p> <ol style="list-style-type: none"> Nasopharyngeal or oropharyngeal swab <ul style="list-style-type: none"> Transport in a Viral Transport medium. Freeze at -20°C. Nasopharyngeal or oropharyngeal wash or aspirate <ul style="list-style-type: none"> Minimum amount = 1 mL Collect in sterile container. Freeze at -20°C. |
| Specimen Collection Guidelines | <p>Consider laboratory testing of respiratory specimens for Enteroviruses and EV-D68 when the cause of respiratory illness in severely ill patients is unclear and if other tests for respiratory illnesses are negative.</p> <p>Specimens will be sent to Centers for Disease Control and Prevention (CDC) for molecular typing.</p> |
| Specimen Submission Guidelines | <ul style="list-style-type: none"> Label all samples with patient's name or Identification (ID) number, specimen ID number and date of collection. Call the Guam Public Health Laboratory (GPHL) at 735-7153 or 735-7355 before collecting and sending specimens for suspected EV-D68. <u>NO SPECIMEN WILL BE ACCEPTED AT GPHL AND CDC WITHOUT PRIOR CONSULTATION.</u> Fill out COMPLETELY the CDC Specimen Submission form 50.34 (attached). Call the GPHL 735-7153, 735-7141 or 735-7355 to inform staff of the specimen delivery. Specimens will be sent to a CDC reference laboratory for testing. Physicians/providers will be notified of the result by the GPHL Technologist once the final result is received from CDC. |
| Safety Precautions And Infection Control for Collecting and Handling Specimens | <ul style="list-style-type: none"> Infection control precautions should include Standard, Contact and Droplet Precautions. Use appropriate personal protective equipment (PPE) face shield/mask, gloves, and laboratory coat when collecting, processing and handling specimens. Upon removal and prior to donning of gloves, perform hand hygiene using alcohol-based hand rub (ABHR) or soap and water. |

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| | <ul style="list-style-type: none"> • Specimens for transport to the GPHL must be placed in a sealed bag and placed in a sealed, decontaminated primary container. • All disposable wastes and PPE used for collection and processing should be autoclaved. |
| Specimen Transport Guidelines | <p>Transport frozen specimens with cold packs (2-8°C) to maintain frozen state or with dry ice to GPHL.</p> <p>Deliver specimens to the GPHL no later than 4 PM, Mondays-Fridays.</p> <p>Frozen specimens will be sent to CDC on dry ice.</p> |
| Rejection Criteria | <ul style="list-style-type: none"> • Specimens sent to the GPHL without prior consultation and notice. • Specimen quantity is insufficient to perform the test; • Specimen not packed as described in Specimen Submission guidelines • Specimen is not received frozen. • Unlabeled specimens, incomplete label on specimen (Refer to Specimen Submission Guidelines). • Illegible/ incomplete Submission form. • Specimen label does not match the Submission form. |
| Result Notification | <p>Laboratory reports will be forwarded to the submitting facility, Territory Epidemiologist, and the Bureau of Communicable Disease Control (BCDC) Administrator via Facsimile.</p> <p>Any other request for copies of laboratory reports, apart from that stipulated above will not be accepted.</p> |
| Contact Information | <p>Alan Mallari, Microbiologist II, GPHL (671) 735-7141 or 735-7355 alan.mallari@dphss.guam.gov</p> <p>Lea Nisay, Microbiologist I, GPHL (Alternate) (671) 735-7153 FAX (671) 735-0348 or (671) 734-2104 lea.nisay@dphss.guam.gov</p> <p>Anne Marie Santos, GPHL, Central Laboratory Administrator (671) 735-7153 or (671) 735-7158 annemarie.santos@dphss.guam.gov</p> |

Attachment: CDC Specimen Submission Form 50.34

References:

1. CDC: Non-Polio Enterovirus Infection: Enterovirus D68. Sept. 25, 2014
2. CDC: Enterovirus D68 for Health Care Professionals, Sept. 25, 2014
3. CDC: Specimen Collection, Storage and Shipment Guide, May 10, 2013