

Specimen Collection & Storage

Specimen Type	Specimen Collection & Storage Instructions
Lower Respiratory (sputum, bronchoalveolar lavage, tracheal aspirate, and pleural fluid)	For bronchoalveolar lavage, tracheal aspirates, and pleural fluid collect 2-3 ml into a leak-proof, sterile, screw cap sputum collection cup or sterile dry container. Refrigerate up to 72 hours at 2-8°C. If specimens will not be shipped to the Maryland Department of Health Labs within 72 hours, freeze specimens at -70°C as soon as possible after collection and ship specimens to the lab on dry ice. For sputum collections, have the patient rinse their mouth with water and then expectorate deep cough sputum directly into a leak-proof, sterile, screw cap sputum collection cup.
Upper respiratory specimens (nasopharyngeal swab (NPS), oropharyngeal swab (OPS), nasopharyngeal wash/aspirate, and nasal aspirate)	<p>Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts as they may inhibit PCR testing or inactivate some viruses. Place swabs, after collecting patient specimen, directly into 2-3 ml of viral transport media. These specimens can be refrigerated up to 72 hours at 2-8°C. If specimens will not be shipped to the Maryland Department of Health Labs within 72 hours, freeze specimens at -70°C as soon as possible after collection and ship specimens to the lab on dry ice.</p> <p>For upper respiratory washes and aspirates, collect 2-3 ml into a leak-proof, sterile, screw-cap sputum collection cup or sterile dry container. DO NOT add the washings to viral transport media, as this may dilute out any virus and provide false negative results. These specimens can be refrigerated up to 72 hours at 2-8°C. If specimens will not be shipped to the Maryland Department of Health Labs within 72 hours, freeze specimens at -70°C as soon as possible after collection and ship specimens to the lab on dry ice.</p>
Stool	<p>Stool specimens can be collected. However, as of June 2015, CDC has stopped recommending the collection of stool specimens. If stool specimens are going to be collected, collect the stool specimen in a leak-proof, sterile screw cap container. These specimens can be refrigerated up to 72 hours at 2-8°C. If specimens will not be shipped to the Maryland Department of Health Labs within 72 hours, freeze specimens at -70°C as soon as possible after collection and ship specimens to the lab on dry ice.</p>

Serum for rRT-PCR testing	Serum specimens for PCR testing should be collected within the first 10-12 days post symptom onset. The MDH Laboratories requires a minimum of 1 ml of serum for testing to be completed. Collect serum using a serum separator tube. Store the serum separator tube upright for at least 30 minutes and then centrifuge at 1000-1300 relative centrifugal force (RCF) for 10 minutes. Serum can then be removed to a separate sterile tube for shipping. These specimens can be refrigerated up to 72 hours at 2-8°C. If specimens will not be shipped to the Maryland Department of Health Labs within 72 hours, freeze specimens at -70°C as soon as possible after collection and ship specimens to the lab on dry ice.
Serum for antibody testing (CDC sendout)	Serologic testing on a single serum sample collected 14 or more days after symptom onset may be beneficial. Serologic testing is currently available at the CDC under certain circumstances upon prior request and approval. Please be aware that the MERS-CoV serologic test is for research/surveillance purposes and not for diagnostic purposes.