

Specimen Collection and Submission Instructions

MERS-CoV, rRT-PCR (Version 3)

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Specimen Type	Collection Time	Collection Frequency	Collection Procedures	Transport Media	Shipping & Handling (S&H)**
Please collect and submit specimen from all 3 specimen types (lower respiratory, upper respiratory, and serum)					
Bronchoalveolar lavage, tracheal aspirate, pleural fluid (lower respiratory)	At illness	NA	<ul style="list-style-type: none"> Collect 2-3 mL in a sterile, leak-proof, screw-cap sputum cup or sterile dry container. Minimum volume: 2-3 ml. 	NA	<ul style="list-style-type: none"> Transport device: Sterile, leak-proof, screw-cap sputum cup or sterile dry container Transport: Ship cold (2-8°C) on ice packs. If previously frozen, ship on dry ice. Storage: Refrigerate at 2-8°C up to 72 hrs. If arriving at WAPHL ≥ 72 hrs after collection, freeze at ≤ -70°C.
Sputum (lower respiratory)			<ul style="list-style-type: none"> Have the patient rinse the mouth with water. Then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. 	NA	<ul style="list-style-type: none"> Transport device: Sterile, leak-proof, screw-cap sputum cup or sterile dry container Transport: Ship cold (2-8°C) on ice packs. If previously frozen, ship on dry ice. Storage: Refrigerate at 2-8°C up to 72 hrs. If arriving at WAPHL ≥ 72 hrs after collection, freeze at ≤ -70°C.
Nasopharyngeal (NP) and/or Oropharyngeal (OP) swabs (upper respiratory)			<ul style="list-style-type: none"> Collect only using synthetic tip swabs (ex. Dacron, Nylon, Polyester) with non-wooden shaft. Place swabs immediately into sterile tube containing 2-3ml viral transport media (VTM). NP/OP specimens should be combined, placing both swabs in the same vial. Nasopharyngeal swabs -- Insert a swab in the nostril parallel to the palate. Leave in place for a few seconds to absorb secretions. Swab both nasal areas. Oropharyngeal swab -- Swab the posterior pharynx, avoiding the tongue. 	VTM	<ul style="list-style-type: none"> Transport device: Sterile leak-proof container. Transport: Ship cold (2 - 8°C) on ice packs. If previously frozen, ship on dry ice. Storage: Refrigerate at 2-8°C up to 72 hrs. If arriving at WAPHL ≥ 72 hrs after collection, freeze at ≤ -70°C.

(Additional Specimen Types on page 2)

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Specimen Type	Collection Time	Collection Frequency	Collection Procedures	Transport Media	Shipping & Handling (S&H)**
Nasal aspirate (upper respiratory)	At illness	NA	<ul style="list-style-type: none"> Collect 2-3 mL in a sterile, leak-proof, screw-cap sputum cup or sterile dry container. Minimum volume: 2-3 ml. 	NA	<ul style="list-style-type: none"> Transport device: Sterile, leak-proof, screw-cap sputum cup or sterile dry container Transport: Ship cold (2-8°C) on ice packs. If previously frozen, ship on dry ice. Storage: Refrigerate at 2-8°C up to 72 hrs. If arriving at WAPHL ≥ 72 hrs after collection, freeze at ≤ -70°C.
Serum (adult & children); Whole blood (infants)	Within 10-12 days of symptom onset	NA	<ul style="list-style-type: none"> Adults and children: Collect 1 tube (5-10 mL) whole blood in a serum separator tube. Serum separator tubes should be stored upright for at least 30 minutes, and then centrifuged at 1000–1300 relative centrifugal force (RCF) for 10 minutes before removing the serum and placing it in a separate sterile tube for shipping (such as a cryovial). Minimum volume: 200µl of serum. Infants: A minimum of 1 mL of whole blood is needed for testing pediatric patients. If possible, collect 1 mL in in a serum separator tube. 		<ul style="list-style-type: none"> Transport device: Sterile tube container. Transport: Ship cold (2-8°C) on ice packs. If previously frozen, ship on dry ice. Storage: Refrigerate at 2-8°C up to 72 hrs. If arriving at WAPHL ≥ 72 hrs after collection, freeze at ≤ -70°C.

General Rejection Criteria (for additional details, see S&H)

- Unaccepted specimen type.
- Not refrigerated or frozen properly.
- Insufficient specimen volume.
- Leaky specimen.
- Did not obtain LHJ or DOH CDE approval.
- Failure to follow specific S&H requirements.

NOTE:

Specimens will not be processed until ALL of the following information are provided on requisition form:

- Patient name, patient's county of residence, and second identifier.
- Two matching identifiers on both the tube and the laboratory requisition form.
- Specimen type, date of collection, and test requested.
- Submitter name, address, and telephone/FAX numbers.

Collection kit availability

Not available.

Comments

- Use appropriate infection control precautions when collecting respiratory tract, serum, and stool specimens.
- Serologic testing is currently available only at CDC upon request and approval. Please consult with DOH Office of Communicable Disease Epidemiology for ideal timing of specimen collection for serologic testing. In general, for serologic testing, collect serum during acute symptoms, preferably the first week after onset of illness, and again ≥ 3 weeks later.