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Dr. Katherine A. Kelley State Public Health Laboratory
395 West St., Rocky Hill, CT 06067

# Directory of Clinical Testing Services

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# Specimen Submission Instructions

**Setting up an account**
Specimen submission requires the establishment of an account with the Department of Public Health Laboratory. This is done by calling the Quality Assurance Manager at (860) 920-6507 and supplying account specific information. A profile number and customized Clinical Test Requisitions will be provided.

**Collection kits**
Collection tubes and mailing materials are available for many of the orderable tests. Refer to Collection Kit Ordering Information for specific information. Collection kits may be obtained by calling (860) 920-6674 or (860) 920-6675. Requests via e-mail may be made to DPH.outfitroom@ct.gov

**Clinical Test Requisition**
Each specimen must be accompanied by a Clinical Test Requisition completed with the following information:

- Name and address of the submitter (and/or profile number)
- Patient name or unique identifier, date of birth, town of residence (city, state, zip)
- Test requested
- Date collected
- Specimen type or source of collection

Additional information may be needed for certain tests, as noted in the instructions for that test.

Clinical Test Requisitions may be found on the Dr. Katherine A. Kelley State Public Health Laboratory webpage located at, www.ct.gov/dph/cwp/view.asp?a=3122&q=396860

**Quality Assurance**
Test results will be withheld if required information is missing from the test requisition. Results will be released only after missing or corrected information is received by the laboratory.

Specimens must be legibly labeled with the patient's name or unique identifier. Testing cannot be performed on unlabeled specimens. Mis-labeled or illegibly labeled specimens will not be tested unless the submitter can correct the identification problem.

# Collection Kit Ordering Information

The following collection kits are available, at no cost, from the Department of Public Health Laboratory. All collection kits contain a specimen container and packaging supplies. Collection kits can be obtained by calling the outfit room, (860)920-6674 or (860) 920-6675, Monday-Friday, 8:00 AM to 4:00 PM. Requests may also be submitted via e-mail to DPH.outfitroom@ct.gov

| Test (alphabetical order) | Collection Kit ID | Kit contents |
|---|---|---|
| Blood lead screen (capillary collection) | PB-MV<br>OL-201 | Capillary blood collection tubes (specify quantity), absorbent pad, inner/outer mailing containers. Available in 2 sizes. Please specify large (for multiple samples) or small (for a single specimen). |
| Blood lead, whole blood | LFB | Vacutainer® blood collection tube (beige top) with $K_2$ EDTA preservative, absorbent pad, inner/outer mailing container. |
| *Bordetella pertussis* | WC<br>OL-37 | 2 sterile polyester-tipped nasopharyngeal collection swabs,<br>1 vial 1% casamino acid diluent,<br>1 Regan Lowe agar slant,<br>2 glass slides with etched circles,<br>collection instructions,<br>absorbent pad, inner/outer transport container. |
| Chlamydia/GC DNA Probe | GC/CT<br>OL-200 | Urine and/or female or male swab collection kit (please specify), absorbent pad, inner/outer transport container. Available in 2 sizes. Please specify large (for multiple samples) or small (for a single specimen). |
| Enteric (stool) culture | FE<br>OL-39 | Cary Blair transport media,<br>absorbent pad, inner/outer transport container. |
| Hepatitis B<br>Hepatitis C<br>HIV | VR-H<br>OL-43 | Vacutainer® 5.0 mL SST blood collection tube,<br>absorbent pad, inner/outer transport container. |
| Infectious disease (viral) serology | VR-H<br>OL-43 | Vacutainer® 5.0 mL SST blood collection tube,<br>absorbent pad, inner/outer transport container. |
| Newborn screening | | Blue filter paper collection card,<br>blue envelope,<br>collection instructions |
| Norovirus PCR | FE<br>OL-39 | Cary Blair transport media,<br>absorbent pad, inner/outer transport container. |
| QuantiFeron-TB Test | TC<br>OL-40 | Test-specific collection tubes (Nil control, TB antigen, and Mitogen), absorbent pad, inner/outer transport container. |

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| Referred culture (enteric or EIP isolate, BT agent for ID) | RC OL-45 | Absorbent pad, inner/outer transport container. |
| Syphilis serology | SY OL-46 | Vacutainer® 5.0 mL SST blood collection tube, absorbent pad, inner/outer transport container. |
| Tuberculosis culture | TC OL-40 | 50 mL plastic centrifuge tube, absorbent pad, inner/outer transport container. |
| Viral culture | VR-C OL-60 | Viral transport media, sterile collection swab, absorbent pad, inner/outer transport container. |
| Virus serology | VR-H OL-43 | Vacutainer® 5.0 mL SST blood collection tube, Absorbent pad, inner/outer transport container. |
| Viral PCR (Mumps, Measles, Influenza, HSV) | Cat B shipping box (Saf T Pak STP 309) | Viral transport media and collection swabs (specify quantity), collection instructions, cold pack, absorbent pad, inner/outer transport container. |

# AFB Clinical Specimen (Mycobacteria Smear & Culture)

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| **Test description** | Acid fast microscopy and culture of pulmonary and non-pulmonary clinical specimens. |
| **Test use** | To determine the presence or absence of mycobacteria in clinical specimens and, if isolated, to identify to the species or complex. |
| **Test department** | Mycobacteriology Laboratory<br>Phone: (860) 920-6649, FAX: (860) 920-6721 |
| **Methodology** | Smear by Auramine-rhodamine fluorescent stain. Culture using agar (Lowenstein-Jensen) and broth (BACTEC™ MGIT™) media. Identification methods: DNA probe, High Performance Liquid Chromatography (HPLC), biochemical testing and growth characteristics. |
| **Availability** | Daily, Monday-Friday. Negative cultures are reported after 6 weeks incubation. |
| **Specimen Requirements** | Clinical specimens from pulmonary and extra pulmonary sites. Sputum: minimum volume 3 mL (5-10 mL preferred) collected in a sterile 50 mL conical tube.<br>Swab specimens are strongly discouraged. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Varies according to anatomic site. If needed, site specific collection instructions may be obtained by calling the Mycobacteriology Laboratory. |
| **Specimen Handling & Transport** | Store at 2-8° C. Transport as soon as possible to laboratory. Transport with an ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes.<br>Exceptions: Room temperature storage and transport is required for blood, bone marrow, CSF, tissue, and gastric wash/lavage samples. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Blood collected into EDTA (purple top) or ACD (yellow top tubes)<br>Coagulated blood |
| **Requisition Form** | Clinical Test Requisition (select **AFB Clinical Specimen**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth. Specimen source/type, date collected, test(s) requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • A negative result does not rule out infection with mycobacteria.<br>• Non-acid fast organisms present in culture may interfere with isolation and identification of mycobacteria. |
| **Additional information** | • A nucleic acid amplification test for the presence of *Mycobacterium tuberculosis* complex DNA is automatically done on the first patient specimen submitted for AFB smear and culture that is found to be acid fast smear positive (see MTBC NAAT).<br>• Anti-tuberculous drug susceptibility testing is performed on the initial *M. tuberculosis* complex isolate from each patient.<br>• Cultures are incubated for 6 weeks before being reported as negative. |

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# AFB Referred Culture (Mycobacteria for ID)

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| **Test description** | Identification of mycobacteria to the complex, group, or species. |
| **Test use** | To identify mycobacteria isolated in culture. |
| **Test Department** | Mycobacteriology Laboratory<br>Phone: (860) 920-6649, FAX (860) 920-6721 |
| **Methodology** | Identification methods: DNA probe, High Performance Liquid Chromatography (HPLC), biochemical testing and growth characteristics. |
| **Availability** | Isolate identification available 1-7 days from confirmation of acid fast bacilli in culture. |
| **Specimen Requirements** | Acid fast organism on any solid or in liquid media commonly used for the isolation of mycobacteria species, such as Lowenstein-Jensen (LJ), Middlebrook, and media from automated test systems. |
| **Collection Kit/Container** | Follow all applicable federal regulations for packaging of infectious substances. |
| **Collection Instructions** | Submit culture in standard agar or broth media |
| **Specimen Handling & Transport** | Transport to the laboratory at ambient temperature. Avoid temperature extremes.<br>Cultures suspected of containing *Mycobacterium tuberculosis* should be packaged and shipped in accordance with "Category A Infectious Substances" guidelines. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Cultures overgrown with or contaminated by non-acid fast bacteria |
| **Requisition Form** | Clinical Test Requisition (select **AFB Referred Culture**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or site of collection, date collected, and test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • Non-acid fast organisms present in the culture may interfere with identification of mycobacteria.<br>• DNA probe identification test does not differentiate between members of the tuberculosis complex (*M. tuberculosis*, *M. bovis*, *M. bovis* BCG, *M. africanum*, *M*. *microti* and *M. canetti*).<br>• A small number of biochemically determined *M. avium* complex isolates may not be detected by the DNA probe identification test. |
| **Additional comments** | In some cases, isolates will only be identified to the species level or to the "species-complex group" (such as *M. avium* complex, *Simian-Avium* (SAV) group, or *M. tuberculosis* complex). Isolates can be submitted to collaborating laboratories for additional testing, if required. Consult with the Mycobacteriology laboratory. |

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# Arbovirus Panel (Encephalitis Viruses)

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| **Test Description** | Detection of virus specific IgM and neutralizing antibodies to arbovirus infection. The arbovirus(es) suspected must be specified. |
| **Test use** | To aid in the diagnosis of current or past infection with arboviruses |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | IgM capture ELISA, IgG ELISA, additional procedures as required |
| **Availability** | Specimen is referred to the Centers for Disease Control and Prevention in Fort Collins, CO for testing. |
| **Specimen Requirements** | 0.5 mL serum and/or 1 mL cerebral spinal fluid<br>NOTE: If specimen collection occurs within 8 days after symptom onset, a convalescent serum specimen will be requested. Acute and convalescent serum specimens, if available, should be sent together. Acute specimens should be collected 3-10 days after symptom onset. Collect convalescent specimen 2-3 weeks after acute sample. |
| **Collection kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information |
| **Collection Instructions** | Standard venipuncture technique<br>Aseptically obtained spinal fluid |
| **Specimen Handling & Transport** | Keep serum cold or frozen<br>Transport with an ice pack coolant |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Whole blood |
| **Requisition Form** | Clinical Test Requisition (select **Arbovirus Panel (Encephalitis Viruses**)). The arbovirus(es) suspected must be specified. |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen source/type, date collected, test requested<br>Date of onset of patient symptoms<br>Pertinent travel history (3 months prior to symptom onset)<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • Testing requires approval of Epidemiology and Emerging Infections, (860) 509-7994.<br>• If initial serological testing is positive, further confirmatory tests are done which may delay reporting of the final results. |
| **Additional Comments** | Testing is limited to those patients exhibiting symptoms and/or travel history consistent with arbovirus infection. |

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# BioResponse Testing (specify agent)

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| **Test Description** | Confirmatory identification of clinical isolates presumptively identified as *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, *Burkholderia* sp., *Coxiella* sp., *Brucella* sp. or orthopox virus |
| **Test Use** | To rule out infection caused by the listed organisms |
| **Test Department** | Bio-Response<br>Phone: (860) 920-6550 FAX: (860) 920-6721 |
| **Methodology** | Various to include culture, DFA, PCR |
| **Availability** | Daily, Monday-Friday, or by arrangement with the BioResponse Supervisor |
| **Specimen Requirements** | Pure culture of a clinical isolate submitted on agar slant (preferred) or plate. |
| **Collection Kit/Container** | To obtain collection kit, refer Collection Kit Ordering Information. |
| **Collection Instructions** | Varies by agent and specimen type. Prior to specimen submission consult with Bio-Response Supervisor at (860) 920-6550. After hours emergency contact number is (860) 716-2705. |
| **Specimen Handling and transport** | Store and transport isolates at ambient temperature. Avoid temperature extremes. Follow all applicable federal packaging & shipping regulations. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens in viral transport media |
| **Requisition Form** | Clinical Test Requisition (select **Bioterrorism Agent Identification.** Specify the suspected organism) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test(s) requested<br>Please ensure patient name on the requisition matches that on the specimen |

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# Blood Parasite – Smear

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| **Test Description** | Examination of stained blood smears for confirmatory identification of blood parasites such as *Malaria* sp. , *Babesia* sp., *Trypanosoma* sp., and microfilaria |
| **Test use** | Confirmation of blood parasite infection in patients with appropriate travel history or other suspected exposure. |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596 FAX: (860) 920-6721 |
| **Methodology** | Microscopic analysis |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Giemsa or Wright's stained blood smears. Both thick and thin stained slides should be submitted. |
| **Collection Kit/Container** | Sturdy cardboard or plastic slide holder. |
| **Collection Instructions** | Collect specimen, prepare and stain slides in accordance with established microbiology procedures |
| **Specimen Handling & Transport** | Store and transport specimen at ambient temperature. Slides must be packaged to prevent crushing or breakage during transport. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Slides that have broken during transit<br>Unstained slides<br>Whole blood samples |
| **Requisition Form** | Clinical Test Requisition (select **Blood Parasite-Smear**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth, **Travel history**<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |

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# *Bordetella pertussis* (DFA, Culture, or Isolate)

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| **Test description** | Fluorescent microscopy and culture to isolate and identify *Bordetella pertussis* from upper respiratory tract specimens. |
| **Test Use** | To aid in diagnosis of upper respiratory tract infections due to *Bordetella pertussis*. |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596, FAX (860) 920-6721 |
| **Methodology** | Direct fluorescent antibody (DFA) and bacterial culture |
| **Availability** | Daily, Monday-Friday |
| **Specimen requirements** | Nasopharyngeal swab or aspirate inoculated onto Regan Lowe agar slant and 2 etched glass slides |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Collection instructions are included in the collection kit. For best results, specimen should be collected early in the course of the disease and before the characteristic cough occurs. |
| **Specimen Handling & Transport** | Transport to the laboratory as soon as possible.<br>Store and transport at ambient temperature. Avoid temperature extremes. |
| **Unacceptable conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens submitted on expired media |
| **Requisition Form** | Clinical Test Requisition (select ***Bordetella pertussis***) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or site of collection, date collected, and test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | A positive direct FA result may be seen even after the patient has been on antibiotic therapy. |

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# Chemical Preparedness and Response

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| **Test description** | Referral of blood and urine specimens to CDC for rapid toxic screen to assess the potential of a chemical exposure event; to provide surge capacity analysis, as needed, of human specimens for metabolites indicative of exposure to chemical agents. |
| **Test Use** | To aid in identifying a chemical terrorism event. |
| **Test Department** | Chemical Preparedness<br>Phone: (860) 920-6716 or (860) 620-6717 |
| **Methodology** | ICP-MS, GC-MS |
| **Availability** | Daily, Monday-Friday |
| **Specimen requirements** | From each patient submit,<br>• Whole blood collected by venipuncture into 3 purple top tubes and 1 green or gray top tube<br>• Clean catch urine (40-60 mL) in a screw capped collection cup<br>• Blank tubes -2 empty and unopened purple top tubes, 2 empty and unopened green or gray top tubes, 2 empty and unopened urine cups |
| **Collection Kit/Container** | Collection kit containing tubes, submission form and collection instructions are located within the emergency departments in the state's sentinel hospitals |
| **Collection Instructions** | Standard venipuncture<br>Clean catch urine collection |
| **Specimen Handling & Transport** | Transport to the laboratory immediately. |
| **Unacceptable conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Improperly collected specimens |
| **Requisition Form** | Chemical Response Specimen Submission / Chain of Custody Form |
| **Required Information** | Name and address of sender (hospital)<br>Patient name, date of birth, sex , hospital ID #<br>Specimen type or site of collection, date collected<br>Please ensure patient name on requisition matches that on the specimens. |
| **Additional Comments** | The Chemical Preparedness and Response Laboratory is a partner in CDC's Chemical Laboratory Response Network (LRN-C) to develop surge capacity in response to a chemical exposure public health emergency. |

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# Chlamydia & Gonorrhea DNA Probe

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| **Test description** | Qualitative detection of *Chlamydia trachomatis* DNA and *Neisseria gonorrhoeae* DNA in clinician collected genital (female endo-cervical and male urethral) or urine specimens. |
| **Test use** | As an aid to the diagnosis of chlamydial and gonococcal urogenital disease in symptomatic or asymptomatic individuals. |
| **Test Department** | Sexually Transmitted Diseases Molecular Diagnostics<br>Phone: (860) 920-6696; FAX: (860) 920-6721 |
| **Methodology** | Nucleic acid (DNA) amplification assay (BD Probe Tec™) |
| **Availability** | Daily, Monday - Friday |
| **Specimen Requirements** | Female endocervical swab<br>Male urethral swab<br>Male and female urine specimens<br>Specimens must be received in collection devices specific to this assay. |
| **Collection Kit/Container** | • BD ProbeTec™ Collection Kit for Endocervical Specimens<br>• Male Urethral Specimen Collection Kit for the BD ProbeTec™ *Chlamydia trachomatis/Neisseria gonorrhoeae* (CT/GC) $Q^x$ Amplified DNA Assay<br>• Urine Preservative Transport for the BD ProbeTec™ $Q^x$ Amplified DNA Assays<br>To obtain collection kits , refer to Collection Kit Ordering Information |
| **Collection instructions** | Follow instructions included on collection devices. |
| **Specimen Handling & Transport** | Store and transport specimens at ambient temperature. Specimens must be received within 30 days of collection.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens received beyond 30 days of collection<br>Specimens received after the expiration on the collection device<br>Specimens collected in collection devices from other manufacturers (e.g. Gen-Probe® Aptima®)<br>Incorrect volume of urine in the urine transport tube |
| **Requisition Form** | Clinical Test Requisition (select **Chlamydia & Gonorrhea DNA Probe**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen source/type, date collected, and test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Cannot be used to assess therapeutic success or failure (test of cure) because nucleic acids from *C. trachomatis* and *N. gonorrhoeae* may persist following antimicrobial therapy. |
| **Additional comments** | This test should not be used for the evaluation of suspected sexual abuse or for other medico-legal indications |

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# Cytomegalovirus IgG

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|---|---|
| **Test Description** | Qualitative assay for the detection of IgG antibody to cytomegalovirus (CMV) in human serum. |
| **Test Use** | To determine the CMV immune status of individuals and identify those at risk for infection. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Indirect Enzyme Immunoassay (EIA) |
| **Availability** | Routine testing is performed weekly. |
| **Specimen Requirements** | 1 mL serum |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store serum at 2-8° C. Specimens should be received in the laboratory within 48 hours of collection.<br>Transport with an ice pack coolant (preferable) or at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hemolyzed, lipemic, or icteric serum<br>Grossly contaminated serum<br>Heat inactivated serum |
| **Requisition Form** | Clinical Test Requisition (select **Cytomegalovirus IgG**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, date of collection<br>Specimen type or source of collection, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | The magnitude of the reported result cannot be correlated to an end point titer and is not indicative of the total amount of antibody present. |

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# Cytomegalovirus IgM

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|---|---|
| **Test Description** | Qualitative assay for the detection of IgM antibody to cytomegalovirus (CMV) in human serum. |
| **Test use** | Determination of recent or current infection with cytomegalovirus as an indicator of primary infection, reinfection, or virus reactivation. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Enzyme-linked Immunosorbent Assay (ELISA) |
| **Availability** | Routine testing is performed weekly. |
| **Specimen Requirements** | 1 mL serum |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information |
| **Collection Instructions** | Standard venipuncture |
| **Specimen Handling & Transport** | Store serum at 2-8° C. Specimens should be received within 48 hours of collection.<br>Transport with an ice pack coolant (preferable) or at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hemolyzed, lipemic, or icteric serum<br>Grossly contaminated serum<br>Heat inactivated serum |
| **Requisition Form** | Clinical Test Requisition (select **Cytomegalovirus IgM**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | IgM antibodies usually appear in the first week of infection. They may persist for a long duration and also may be detected upon reactivation or re-infection. |

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# EIP Isolate for Identification

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| **Test description** | Confirmatory identification of non-enteric bacteria of public health significance. Includes isolates of Group A *Streptococcus*, *Haemophilus influenza*, *Listeria monocytogenes*, *Neisseria meningitidis,* and *Streptococcus pneumoniae* isolated from normally sterile body sites. |
| **Test use** | Referral of bacterial isolates to CDC for serotyping as part of the Emerging Infections Program. |
| **Test department** | Microbiology<br>Phone: (860) 920-6596, FAX: (860) 920-6721 |
| **Methodology** | Conventional biochemical testing, serotyping |
| **Availability** | Daily, Monday - Friday |
| **Specimen requirements** | Pure culture on appropriate agar slant (preferred) or plate. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Specimen Handling & Transport** | Transport to the laboratory at ambient temperature. Avoid temperature extremes.<br>Follow all applicable federal packaging and shipping requirements |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Mixed or non-viable cultures |
| **Requisition Form** | Clinical test requisition (select **EIP Isolate for identification**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Panel is limited to the following organisms: *Streptococcus pneumoniae, Haemophilus influenza, Listeria monocytogenes, Neisseria meningitidis,* and Group A *Streptococcus* isolated from sterile body sites (blood, CSF, tissue, bone and other normally sterile body fluids or sites). |

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# Enteric Isolate or Culture

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|---|---|
| **Test Description** | Confirmatory identification of enteric bacteria of public health significance, to include *Salmonella, Shigella, Campylobacter, Vibrio,* and shiga-toxin producing *Escherichia coli.* |
| **Test Use** | Identification and serotyping/grouping of enteric bacterial pathogens. |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596 FAX: (860) 950-6721 |
| **Methodology** | Bacterial culture onto selective media, biochemical identification, serotyping, EIA |
| **Availability** | Daily, Monday - Friday |
| **Specimen Requirements** | • Pure culture of enteric pathogen on agar slant (preferred for shipping) or plate.<br>• Culture independent diagnostic test (CIDT) device<br>• Freshly passed stool specimen collected early in the course of disease |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit ordering Information. |
| **Collection Instructions** | Stool specimens from patients with diarrheal illness must be collected as early in the course of the disease as possible. Collect into a clean, dry container. Transfer specimen to Cary Blair transport media. Fill to indicated line (15 mL). |
| **Specimen Handling & Transport** | • Transport isolates to the laboratory at ambient temperature. Avoid temperature extremes. Follow all applicable federal packaging and shipping regulations.<br>• Transport stool specimens at 2-8° C. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that leak or containers that have broken in transit<br>Non-viable isolates<br>Stools submitted in expired or dis-colored (yellow) transport media<br>Stool specimens received more than 7 days after collection |
| **Requisition Form** | Clinical test requisition (select **Enteric Isolate or Culture.** Specify the organism suspected) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested, identity of the enteric pathogen to be confirmed<br>Please ensure patient name on the requisition matches that on the specimen. |

Revision: 8/25/15

# Hepatitis B Surface Antibody

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of antibody to Hepatitis B surface antigen (anti-HBs) in human serum or plasma. |
| **Test Use** | To determine past exposure to, or, infection with Hepatitis B virus;<br>to detect the presence of an immune response in Hepatitis B virus vaccine recipients. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Enzyme immunoassay (EIA) |
| **Availability** | Test is performed twice each week |
| **Specimen Requirements** | 1 mL serum (preferred) or plasma derived from heparin, citrate, or EDTA |
| **Collection kit/container** | To obtain collection kit, refer to Collection Kit ordering Information. |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store specimen at 2-8° C°. Specimens should be received by the laboratory within 48 hours of collection.<br>Transport with an ice pack coolant (preferred) or at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that leak or containers that have broken in transit<br>Grossly hemolyzed, lipemic, or heat-inactivated specimens<br>Specimens containing particulate matter |
| **Requisition Form** | Clinical Test Requisition (select **Hepatitis B Surface Antibody**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Assay does not differentiate between vaccine induced immune response and an immune response induced by infection with HBV. |

Revision: 8/25/15

# Hepatitis B Surface Antigen

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of hepatitis B surface antigen (HBsAg) in human serum or plasma. |
| **Test Use** | To detect active Hepatitis B virus infection, either acute or chronic |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Enzyme Immunoassay (EIA) |
| **Availability** | Test is performed twice each week |
| **Specimen Requirements** | 1 mL serum (preferred) or plasma derived from heparin, citrate or EDTA |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimen must be received by the laboratory within 7 days of collection.<br>Transport with an ice pack coolant (preferred) or at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimen that have leaked or containers that have broken in transit<br>Specimens received after acceptable holding time |
| **Requisition Form** | Clinical test requisition (select **Hepatitis B Surface Antigen**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | A person with a positive result is presumed to be infected with hepatitis B, except that persons recently vaccinated for hepatitis B may have transient activity for up to 18 days. |
| **Additional Comments** | Repeatedly reactive results are confirmed with a neutralization assay prior to being reported as positive for HBsAg. |

Revision: 8/25/15

# Hepatitis C Testing

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of antibody to hepatitis C virus (anti-HCV) in human serum or plasma. |
| **Test Use** | As a screening assay to aid in the diagnosis of recent and/or past infection with hepatitis C virus (HCV). |
| **Test Department** | Virology<br>Phone (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Enzyme-linked Immunosorbent Assay (ELISA) |
| **Availability** | Test is performed twice each week |
| **Specimen Requirements** | 1 mL serum (preferred) or plasma derived from EDTA, lithium heparin, CPD, CP2D, CPDA-1, ACD or 4% citrate anticoagulants |
| **Collection kit/container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimen must be received by the laboratory within 7 days of collection.<br>Transport with an ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hemolyzed or heat treated specimens<br>Specimens received more than 7 days after collection |
| **Requisition Form** | Clinical Test Requisition (select **Hepatitis C Testing**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | The presence of anti-HCV does not constitute a diagnosis of hepatitis C disease and may be indicative of recent and/or past HCV infection.<br>A nonreactive test result does not exclude the possibility of exposure to HCV. Levels of anti-HCV may be undetectable in early infection. |
| **Additional Comments** | Nucleic acid amplification testing for Hepatitis C RNA is recommended for patients with repeatedly reactive HCV antibody test results. A separate specimen is required for this test. Contact the Virology laboratory (860-920-6662) for specimen submission requirements or see Hepatitis C PCR. |

Revision: 8/25/15

# Hepatitis C PCR

| | |
|---|---|
| **Test Description** | Qualitative nucleic acid amplification assay for Hepatitis C viral nucleic acid (RNA) in human serum or plasma. |
| **Test Use** | To aid in the diagnosis of hepatitis C infection following a repeatedly reactive HCV antibody ELISA screening test result. |
| **Test Department** | Virology<br>Phone (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Nucleic acid amplification test (NAAT) |
| **Availability** | Test is performed on request. |
| **Specimen Requirements** | 1.5 mL serum (preferred) or plasma derived from sodium heparin, sodium citrate, $K_2$EDTA, or ACD anticoagulants |
| **Collection kit/container** | Category B shipping box with cold pack<br>To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture technique<br>Requires prior notification to the Virology laboratory |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimen must be received by the laboratory within 48 hours of collection.<br>Transport with an ice pack coolant. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hemolyzed or heat treated specimens<br>Specimens received more than 48 hours after collection |
| **Requisition Form** | Clinical Test Requisition (in the **Test, Agent, or Disease Not Listed (specify):** box, write **Hepatitis C PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • Although RNA representing all recognized hepatitis C viral genotypes (1-6) can be detected with this assay, sensitivity and other performance characteristics have not been determined for all HCV genotypes.<br>• Due to specimen stability limitations, testing cannot be reflexed from the specimen used for Hepatitis C ELISA. Re-collection is required. |
| **Additional Comments** | • Contact the Virology Laboratory prior to specimen submission.<br>• Detection of hepatitis C viral RNA is evidence of active HCV infection but does not differentiate between acute and chronic states of infection. |

Revision: 8/25/15

# Herpes simplex IgG Antibody

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of IgG antibodies to herpes simplex virus (HSV), type 1 and type 2 in human serum. This test does not differentiate between type 1 or type 2. |
| **Test Use** | As an indication of past infection with herpes simplex virus. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Enzyme immunoassay (EIA) |
| **Availability** | Test is performed weekly. |
| **Specimen Requirements** | 1 mL serum |
| **Collection Kit/Container** | To request collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store serum at 2-8° C.<br>Transport with an ice pack coolant (preferable) or at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Lipemic, hemolyzed, icteric or grossly contaminated sera |
| **Requisition Form** | Clinical test requisition (select **Herpes Simplex IgG**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth<br>Specimen type or source of collection, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | This test is not intended to diagnose current HSV infection or re-activation. |
| **Additional Comments** | A positive result indicates previous immunological exposure to HSV. IgG antibodies usually appear 1 to 2 weeks after onset of infection and persist at various levels for life. |

Revision: 8/25/15

# Herpes simplex virus PCR

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of Herpes simplex virus 1 and 2 DNA in human specimens. |
| **Test Use** | To aid in the diagnosis of infection with herpes simplex virus |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Real-time PCR |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Genital or skin lesion swab submitted in viral transport media. Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton-tipped swabs, or wood shafted swabs.<br>Fluid specimens (such as CSF) requires 2 mL in an empty sterile screw capped container |
| **Collection Kit/Container** | To request collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Vigorously swab base of lesion with swab and place in viral transport media. |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Transport with an ice pack coolant. Specimens should be received within 48 hours of collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimen that have leaked or containers that have broken in transit<br>Specimens received more than 48 hours after collection |
| **Requisition Form** | Clinical test requisition (select **Herpes simplex PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile number)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen source/type, date collected, and test requested<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | A negative result does not rule out infection with herpes simplex virus. |
| **Additional Comments** | This test has not been cleared or approved by the FDA. It was developed and its performance characteristics have been validated by the CT DPH Laboratory. |

Revision: 8/25/15

# HIV-1 / HIV-2 Testing

| | |
|---|---|
| **Test Description** | Qualitative assay for the detection of HIV-1 and HIV-2 antibodies and HIV-1 p24 antigen in human serum or plasma |
| **Test Use** | Screening assay to aid in the diagnosis of infection with HIV-1 and/or HIV-2 |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Enzyme immunoassay (EIA) and HIV antibody differentiation assay |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | 1 mL serum<br>1 mL plasma (acceptable anticoagulants include EDTA, sodium and lithium heparin, sodium citrate, CPD, CPDA-1 and ACD) |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimens must be received within 7 days of collection.<br>Transport with an ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens received more than 7 days after collection |
| **Requisition Form** | Clinical test requisition (select **HIV-1 / HIV-2 Testing**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | • A negative test result does not preclude the possibility of exposure to or infection with HIV-1 and/or HIV-2.<br>• The performance of this assay has not been established for children less than 2 years of age since maternal IgG frequently persists for as long as 18 months after birth. Supplemental assays designed for neonatal specimens may be helpful in resolving such cases, including HIV nucleic acid tests or viral culture. |
| **Additional Comments** | • Confirmatory testing is performed on repeatedly reactive specimens using an HIV antibody differentiation assay.<br>• Specimens found to be positive by the submitter will be tested in triplicate using the HIV-1 / HIV-2 Combo Antigen / Antibody assay. Confirmatory testing will only be performed on specimens found to be repeatedly reactive. |

# HIV PCR

| | |
|---|---|
| **Test Description** | Qualitative nucleic acid assay for the detection of HIV-1 RNA in human blood. |
| **Test Use** | As an aid in the diagnosis of infection with HIV-1 when the HIV combination EIA is reactive and the HIV antibody differentiation assay is negative or indeterminate. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Nucleic acid amplification test (NAAT) |
| **Availability** | Specimens referred to Florida State Public Health Laboratory |
| **Specimen Requirements** | 1 mL plasma (preferred) or serum.<br>Acceptable anticoagulants include $K_2$EDTA, $K_3$EDTA, ACD, or sodium citrate.<br>Specimens must be repeatedly reactive using a 3rd or 4th generation HIV-1/HIV-2 immune assay and nonreactive or indeterminate using a supplemental assay.<br>Notify Virology Laboratory prior to specimen submission. |
| **Collection Kit/Container** | Category B shipping box<br>To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimens must be received within 72 hours of collection.<br>Transport with an ice pack coolant. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens received after acceptable holding time |
| **Requisition Form** | Clinical test requisition (in the **Test, Agent, or Disease Not Listed (specify):** box, write **HIV PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Specimens are referred to the Florida Department of Public Health, Bureau of Laboratories for testing. |
| **Additional Comments** | Contact the Virology Laboratory prior to specimen submission. |

Revision: 8/25/15

# HIV STARHS Referral
# (Serologic Testing Algorithm for Recent HIV Seroconversion)

| | |
|---|---|
| **Test Description** | Referral of confirmed HIV positive serum, as required, for epidemiological characterization. |
| **Test Use** | To differentiate recent (i.e. incidence) from longstanding HIV infection for epidemiological surveillance purposes. Selected sera are referred to the Wadsworth Center Retroviral Immunology Diagnostic HIV Testing Laboratory for testing. |
| **Test Department** | Virology<br>Phone: (860) 920-6662 FAX: (860) 920-6661 |
| **Methodology** | BED HIV-1 Capture EIA |
| **Availability** | Specimens are forwarded to the Wadsworth Center laboratory after case evaluation. |
| **Specimen Requirements** | >0.5 mL residual serum |
| **Collection Kit/Container** | Residual serum submitted in standard serum separator collection tubes or aliquot tubes |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store and transport specimen at 2-8° C. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit |
| **Requisition Form** | Clinical test requisition (select **HIV STARHS**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | The laboratory test report will only acknowledge receipt of the specimen. A test result is not produced. |
| **Additional Comments** | Referred sera should be confirmed by the submitter as HIV antibody positive by an approved method. |

Revision: 8/25/15

# Influenza PCR

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|---|---|
| **Test Description** | Qualitative assay for the detection of influenza virus nucleic acid (RNA). Includes:<br>• Influenza A/H1<br>• Influenza A 2009/H1<br>• Influenza A/ H3<br>• Influenza A/H3v<br>• Influenza A/ H5<br>• Influenza A/H7<br>• Influenza B |
| **Test Use** | To aid in diagnosis of influenza infection in symptomatic individuals |
| **Test Department** | Virology<br>Phone: ( 860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | • Nasopharyngeal or oropharygeal swab submitted in viral transport media.<br>• Respiratory specimens such as broncheoalveolar lavage, tracheal aspirates, sputum, nasopharyngeal or oropharyngeal aspirates or washes. Submit at least 2 mL liquid specimen in a sterile screw capped container.<br>• Cell culture that is confirmed to contain influenza virus. |
| **Collection Kit/Container** | Category B shipping box with cold pack<br>To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Collect specimens within 3 days of symptom onset. Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton-tipped, or wood shafted swabs. Immediately place swabs into viral transport media. |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Specimens should be received within 4 days of collection.<br>Transport with an ice pack coolant. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Improperly collected specimens<br>Specimens submitted at improper temperature |
| **Requisition Form** | Clinical Test Requisition (select **Influenza PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen source/type, date collected, and test requested<br>Please ensure patient name on the requisition matches that on the specimen. |

Revision: 8/25/15

# Lead Confirmation

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|---|---|
| **Test description** | Evaluation and/or confirmation of whole blood for elevated lead levels. |
| **Test use** | To evaluate potential lead poisoning and occupational lead exposure. A venous specimen is required for diagnostic and medical management purposes. |
| **Test Department** | Chemistry<br>Phone: (860) 920-6635, FAX: (860) 920-6718 |
| **Methodology** | Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) |
| **Availability** | Testing is performed once each week |
| **Specimen Requirements** | Whole blood collected by standard venipuncture into tubes containing EDTA or heparin anticoagulant. Tubes should be filled enough to provide adequate mixing of blood with anticoagulant. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information |
| **Collection Instructions** | Standard venipuncture. |
| **Specimen Handling & Transport** | Store specimen at 2-8°C.<br>Transport at ambient temperatures. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit. |
| **Requisition Form** | Clinical Test Requisition (select **Lead Confirmation**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth, race/ethnicity<br>Specimen type or source of collection, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |

Revision: 8/25/15

# Lead Screen (Child)

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|---|---|
| **Test description** | Evaluation of whole blood for elevated lead levels |
| **Test use** | To identify potential lead poisoning in children |
| **Test Department** | Chemistry<br>Phone: ( 860) 920-6635  FAX: (860) 920-6718 |
| **Methodology** | Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) |
| **Availability** | Testing is performed once each week |
| **Specimen Requirements** | 250 µl (0.25 mL) of whole blood collected by fingerstick and submitted in capillary collection tube containing EDTA or heparin anticoagulant. |
| **Collection Kit/container** | To obtain collection tubes, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Fingerstick blood collection technique.<br>Use aseptic technique throughout the collection process in order to prevent contamination of the specimen with environmental lead. |
| **Specimen Handling & Transport** | Store at 2-8°C.<br>Transport at ambient temperature.  Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens that are clotted<br>Specimens of insufficient quantity |
| **Requisition Form** | Clinical Test Requisition (select **Child Lead Screen**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth, race/ethnicity.<br>Specimen type or source of collection, date collected, test requested.<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Because of the potential for contamination of capillary samples with environmental lead,  elevated levels must be confirmed with a venous specimen. |
| **Additional comments** | Test availability is restricted to those Connecticut patients with no health coverage. |

Revision: 8/25/15

# Measles PCR

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|---|---|
| **Test Description** | Molecular assay for the detection of measles virus RNA in throat and nasopharyngeal specimens |
| **Test Use** | Test of choice for detection of measles infection |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) |
| **Availability** | Test is referred to the Centers for Disease Control and Prevention for testing. |
| **Specimen Requirements** | Combined throat/nasopharyngeal swabs in virus transport media (VTM). Place both swabs into the same VTM tube.<br>Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton tipped swabs, or wood shafts. |
| **Collection Kit/Container** | Category B shipping box with cold pack<br>To request collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard aseptic specimen collection procedures should be followed.<br>Refrigerate VTM immediately after collection. |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Transport with an ice pack coolant.<br>Specimens must be received within 48 hours of collection. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens that have been improperly collected or stored |
| **Requisition Form** | Clinical test requisition (select **Measles PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth<br>Specimen type or source of collection, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Testing requires prior approval of Epidemiology and Emerging Infections, (860) 509-7994.<br>A negative test does not rule out infection with measles virus. |
| **Additional Comments** | Specimen is referred to the Centers for Disease Control and Prevention in Atlanta, GA for testing. |

Revision: 7/6/15

# Middle East Respiratory Syndrome Coronovirus (MERS-CoV) PCR

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|---|---|
| **Test Description** | Qualitative assay for the detection of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) nucleic acid in clinical specimens |
| **Test Use** | To aid in the diagnosis of Middle East Respiratory Syndrome in symptomatic persons. |
| **Test Department** | Virology<br>Phone: (860) 920-6662 FAX: (860) 920-6661 |
| **Methodology** | Real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | • Lower respiratory specimens (preferred), such as broncheo-aveolar lavage, tracheal aspirate, pleural fluid, or sputum.<br>• Nasopharyngeal and oropharyngeal swabs or washes<br>• Stool<br>• Serum |
| **Collection Kit/Container** | Category B shipping box with cold pack<br>To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | • Collect lower respiratory specimens within 7 days of symptom onset and before antiviral medications are used. Submit 2-3 mL in a sterile screw capped container.<br>• Nasopharyngeal/oropharyngeal swabs submitted in viral transport media. Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts.<br>• Nasopharyngeal or nasal aspirates / washes: collect 2-3 mL into a sterile screw capped collection container.<br>• Collect 2-5 grams stool into a sterile screw capped container.<br>• Collect serum by standard venipuncture at any time during or after illness |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Transport with an ice pack coolant.<br>Specimens must be received within 3 days of collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Improperly collected or transported specimens |
| **Requisition Form** | Clinical test requisition (in the select **Test, Agent or Disease Not Listed (Specify):** box, write **MERS-CoV**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | Testing requires prior approval of Epidemiology and Emerging Infections, (860) 509-7994. |
| **Additional Comments** | Testing is limited to those patients symptomatic of respiratory infection and who have traveled from the Arabian peninsula or neighboring countries 14 days before illness onset. Asymptomatic patients who have had contact with an infected person may have serologic testing referred to the Centers for Disease Control and Prevention. Serologic results are for research/surveillance purposes only and are not to be used for diagnosis of illness. |

Revision: 8/25/15

# Mumps PCR

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|---|---|
| **Test Description** | Molecular assay for the detection of mumps virus nucleic acid in human buccal specimens. |
| **Test Use** | Test of choice for diagnosis of acute mumps virus infection. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) |
| **Availability** | Referred to the Centers for Disease Control and Prevention for testing. |
| **Specimen Requirements** | Parotid gland/buccal (the space between the cheek and teeth) swab submitted in viral transport media.<br>Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton tipped, or wood shafted swabs. |
| **Collection Kit/Container** | Category B shipping box with cold pack<br>To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Massage the parotid gland for 30 seconds prior to swabbing area around Stenson's duct.<br>Immediately place swab into viral transport media. |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Transport with an ice pack coolant.<br>Specimens must be received within 48 hours of collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Specimens improperly collected or transported |
| **Requisition Form** | Clinical Test Requisition (select **Mumps PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection, **date of onset**<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | A negative result does not rule out infection with mumps virus. |
| **Additional Comments** | Specimen is referred to the Centers for Disease Control and Prevention in Atlanta, GA for testing. |

Revision: 8/25/15

# *Mycobacterium tuberculosis* complex drug susceptibility

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| **Test Description** | Drug susceptibility testing of *Mycobacterium tuberculosis* complex isolates to the anti-tuberculous drugs streptomycin, isoniazid, rifampin, ethambutol, and pyrazinamide; referral of isolates to the Centers for Disease Control and Prevention (CDC), if indicated, for additional drug testing. |
| **Test Use** | To inform effective drug therapy decisions in patients diagnosed with tuberculosis |
| **Test Department** | Mycobacteriology Laboratory<br>Phone: (860) 920-6649 FAX: (860) 920-6721 |
| **Methodology** | BACTEC™ MGIT™ 960 DST |
| **Availability** | Daily, Monday-Friday. Results available 14-21 days from identification of *M. tuberculosis* complex in culture. |
| **Specimen Requirements** | Pure culture isolate of *M. tuberculosis* complex on solid, or in liquid media commonly used for the isolation of mycobacteria, such as Lowenstein-Jensen (LJ), Middlebrook, or media from automated test systems. |
| **Collection Kit/Container** | Follow applicable federal regulations for packaging of infectious substances. |
| **Specimen Handling & Transport** | Transport cultures to the laboratory at ambient temperature. Avoid temperature extremes. Cultures suspected to contain *M. tuberculosis* must be packaged and shipped in accordance with "Category A Infectious Substances" guidelines. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Cultures mixed with non-tuberculous mycobacteria or non-acid fast bacteria |
| **Requisition Form** | Clinical test requisition (select **AFB Referred Culture**).<br>Drug susceptibility testing is automatically performed on all initial patient isolates of *M. tuberculosis* complex. Pre-approval from the Mycobacteriology Laboratory or the TB Control Program (860-509-7722) is required for drug susceptibility testing on subsequent isolates. |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | Susceptibility testing of non-tuberculous mycobacteria is not done.<br>Drug susceptibility tests cannot be done on cultures mixed with non-tuberculous mycobacteria or other bacteria. |
| **Additional Comments** | • Drug resistant isolates of *M. tuberculosis* complex (MTBC) are sent to CDC for confirmation of resistance by the Indirect Agar Proportion Method. The specific first and second-line drug panels are determined by the initial BACTEC™ MGIT™ 960 results. This testing requires a minimum of 21 days from initiation of testing by CDC.<br>• MTBC isolates resistant to at least rifampin and isoniazid are automatically forwarded to CDC for Molecular Detection of Drug Resistance (MDDR) testing. This test is also available upon request. The suitability for such testing must be determined by consultation with the Mycobacteriology Laboratory or the TB Control Program (860 509-7722) |

Revision: 8/25/15

# *Mycobacterium tuberculosis* complex nucleic acid amplification test (MTBC NAAT)

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| **Test Description** | Nucleic acid assay for the direct detection *of Mycobacteria tuberculosis* complex DNA in pulmonary specimens. Also, to detect mutation of the rpoB gene as an indicator of rifampin resistance. |
| **Test Use** | To aid in the rapid identification of primary tuberculosis disease and rifampin resistance in patients that are acid fast smear positive. |
| **Test Department** | Mycobacteriology Laboratory<br>Phone: (860) 920-6649 FAX: (860) 920-6721 |
| **Methodology** | Semi-quantitative nested real-time polymerase chain reaction |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | A minimum of 3 mL (5-10 mL preferred) raw, unprocessed sputum, bronchial lavage, or bronchial washings from patients who have never received anti-tuberculous therapy, received < 7 days of therapy at the time of specimen collection, or no therapy within the last year. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information |
| **Collection Instructions** | Collect specimen into sterile container |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Transport to the laboratory as soon as possible with an ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes. Specimens must be received within 10 days of collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Extra-pulmonary specimens<br>Processed pulmonary specimens |
| **Requisition Form** | Clinical test requisition (select **AFB Clinical Specimen**)<br>Nucleic Acid Amplification Test Requisition may be found at the Dr. Katherine A. Kelley State Public Health Laboratory webpage located at,<br>www.ct.gov/dph/cwp/view.asp?a=3122&q=396860 |
| **Required Information** | Name and address of submitter (and/or Horizon profile #).<br>Patient name or identifier, date of birth, town of residence (city, state, zip).<br>Specimen type or source of collection, test requested.<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | • A positive test result does not indicate the presence of viable organisms.<br>• A positive result is presumptive evidence for the presence of *Mycobacterium tuberculosis* complex and/or rifampin resistance.<br>• This test should NOT be ordered when clinical suspicion is low, to determine bacteriologic cure, or to monitor response to anti-tuberculosis drug therapy. |
| **Additional Comments** | • Acid fast microscopy and culture for the isolation / identification of acid-fast bacteria is also performed on all samples submitted for MTBC NAAT.<br>• This test is automatically done on the first patient specimen submitted for AFB smear and culture that is found to be acid fast smear positive. Testing of AFB smear negative specimens is only performed upon request. |

# *Neisseria gonorrhoeae* Culture

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| **Test Description** | Isolation and identification of *Neisseria gonorrhoeae* from non-genital body sites. |
| **Test Use** | Detection of *Neisseria gonorrhoeae* from specimen sites (such as pharyngeal and anal) that are unacceptable for use with nucleic acid amplification tests. |
| **Test Department** | Microbiology Laboratory<br>Phone: (860) 920-6596 FAX: (860) 920-6721 |
| **Methodology** | Bacterial culture; biochemical identification |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Specimens must be inoculated onto commercially available media with $CO_2$ generating tablets, such as the JEMBEC™ system. |
| **Collection Kit/Container** | Inoculated JEMBEC™ or other similar system |
| **Collection Instructions** | Warm JEMBEC™ plate to room temperature. Use sterile swab to collect sample from the pharynx or anal crypts. Roll swab over surface of the media, then gently streak surface of JEMBEC™ with the swab. Label with patient ID. Place JEMBEC™ into plastic bag and seal completely (this is required to ensure proper atmosphere and humidity during transport). |
| **Specimen Handling & Transport** | Store inoculated JEMBEC™ in incubator at 35-37° C.<br>Transport at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that has broken in transit<br>Specimens that have been refrigerated or frozen after inoculation<br>Specimens received on expired media<br>Specimens received more than 5 days after collection/inoculation<br>Specimens received on swabs. |
| **Requisition Form** | Clinical test requisition (select **Neisseria gonorrhoeae Culture**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested<br>Please ensure patient name on requisition matches that on the specimen. |

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# Newborn Screening Panel

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| **Test Description** | Screening of newborn infants for analytes suggestive of inherited metabolic diseases and other congenital conditions. |
| **Test Use** | To ensure early recognition and timely intervention of inherited congenital disorders and thereby prevent adverse health outcomes |
| **Test Department** | Newborn Screening<br>Phone: (860) 920-6706 FAX: (860) 920-6633 |
| **Methodology** | Various, to include tandem mass spectrometry, high performance liquid chromatography, polymerase chain reaction, time-resolved fluoro-immunoassay |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Whole blood spotted onto a specialized filter paper collection card |
| **Collection Kit/Container** | Newborn screening filter paper collection card.<br>To obtain collection cards, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Puncture heel and allow a large drop of blood to form. Touch filter paper to blood drop. Allow to soak through and completely fill circle. Apply blood to one side of filter paper only. Fill all 4 preprinted circles. Do not layer successive drops of blood or apply blood more than once in the same collection circle. |
| **Specimen Handling & Transport** | Allow card to air dry horizontally for at least 3 hours at room temperature. Avoid touching or smearing blood spots. Place collection card into envelope. Deliver as soon as possible after drying (but no later than 48 hours after collection) at ambient temperature. Avoid heat, direct sunlight, humidity, and moisture during shipping. |
| **Unacceptable Conditions** | Unlabeled or mislabeled collection card<br>Expired collection card<br>Improperly collected specimen<br>Insufficient quantity |
| **Requisition Form** | Patient and specimen collection information is electronically entered into MAVEN by the birth center. A bar code label containing an 8 digit identification number, unique to each baby, is generated and must be affixed to the specimen.<br>Subsequent specimens must include the identification number, mother's name, infant's name and sex, date of birth, hospital medical record number, and date of specimen collection. |
| **Required Information** | Baby's last name and sex, date and time of birth, birth weight, hospital medical record number, date of collection, mother's name, name and address of primary care provider |
| **Limitations** | Newborn screening is not diagnostic. Patients identified with abnormal findings must undergo further testing and clinical evaluation.<br>Specimens collected from infants less than 24 hours of age, from ill or low birth weight babies, or after a blood transfusion may produce false negative or positive results and must be recollected. |
| **Additional Comments** | Reference ranges for all analytes may be viewed at:<br>www.ct.gov/dph/NBStestresultlevels |

Revision: 8/25/15

# Norovirus PCR

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| **Test Description** | Detection of norovirus, genotypes I and II, RNA in stool specimens |
| **Test Use** | To aid in the investigation of outbreaks of gastrointestinal illness caused by norovirus |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596 FAX: (860) 920-6721 |
| **Methodology** | Real-time Reverse Transcriptase Polymerase Chain reaction (rRT-PCR) |
| **Availability** | Not orderable as a routine test. Requires pre-approval of Epidemiology and Emerging Infections (860 509-7994) |
| **Specimen Requirements** | 2-4 grams (about the size of a navy bean) of whole stool. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Collect stool specimen within 72 hours of symptom onset while stool is still liquid or semi-solid. Place into an empty sterile screw capped container or into Cary Blair transport media. |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Transport with an ice pack coolant. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Rectal swabs |
| **Requisition Form** | Clinical Test Requisition (select **Norovirus PCR**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | All test requests require pre-approval by Epidemiology and Emerging Infections (860-509-7994). |

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# Parasite (Fecal) – Gross Identification

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| **Test Description** | Confirmatory examination of suspected parasitic worms of humans. |
| **Test Use** | For the confirmation and identification of parasitic worm infections of humans. |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596 FAX: (860) 920-6721 |
| **Methodology** | Macroscopic and microscopic examination |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Recovered worm in 10% formalin or its equivalent |
| **Collection Kit/Container** | Sterile urine cup or its equivalent, sealed to prevent leakage during shipment. |
| **Specimen Handling & Transport** | Store and transport at ambient temperature. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have broken or containers that have leaked in transit<br>Worms isolated from animals or the environment<br>Worms not preserved after collection<br>Arthropods (insects) are inappropriate for this assay and will not be accepted. |
| **Requisition Form** | Clinical Test Requisition (select **Parasite (Fecal)-Gross Identification**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Many helminths can only be detected by observation of ova or larvae in concentrated stool samples. This test is not a replacement for a routine ova and parasite examination. |

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# QuantiFeron®-TB Test (QFT)

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| **Test description** | Qualitative assay for the detection of interferon-γ (IFY-γ) in human blood. |
| **Test use** | To identify *in vitro* responses associated with latent *Mycobacterium tuberculosis* infection. |
| **Test department** | Virology<br>Phone: (860) 920- 6662, FAX: (860) 920- 6661 |
| **Methodology** | Enzyme-Linked Immunosorbent Assay (ELISA) |
| **Availability** | Test is performed Monday – Thursday, as needed. |
| **Specimen Requirements** | Whole blood collected into 3 specialized blood collection tubes |
| **Collection Kit/Container** | Nil control tube, TB antigen tube, Mitogen tube<br>To obtain collection tubes, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Routine venipuncture. Mix tubes by vigorous shaking after collection (ensure the entire inner surface of the tube has been coated with the blood). |
| **Specimen Handling & Transport** | Maintain tubes at room temperature (17-27° C). Deliver to laboratory immediately. Specimen must be received within 16 hours after collection. Do not refrigerate or freeze blood. Do not centrifuge the specimen. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have brokenin transit.<br>Improperly collected specimens<br>Specimens received more than 16 hours after collection. |
| **Requisition Form** | Clinical Test Requisition (select **QuantiFeron-TB Test**)<br>QuantiFERON® TB Gold In-Tube Collection and Testing Instructions |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source of collection, date collected, **time collected**, test requested<br>Please ensure patient name on requisition matches that on the specimens. |
| **Limitations** | • A negative test result does not preclude the possibility of *M. tuberculosis* infection. Infections by other mycobacteria (*M. kansasii, M. szulgai, M. marinum*) may cause false positive results.<br>• Medical treatments or conditions that impair immune functionality can potentially reduce IFN-γ responses.<br>• Additional medical and diagnostic evaluations are required to confirm active disease. |
| **Additional Comments** | Studies have demonstrated that the peptide antigens used in the QFT stimulate IFN-γ responses in T-cells from individuals infected with *M. tuberculosis* but generally not from BCG vaccinated persons without disease or risk for latent infection. |

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# Rabies Antigen, Non-Human

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| **Test description** | Necropsy of animal brain to prepare slides for detection of rabies virus. |
| **Test use** | To determine the presence or absence of rabies virus in an animal that has bitten or otherwise exposed a person or domestic animal to saliva, nervous tissue or cerebral spinal fluid. |
| **Test department** | Virology<br>Phone: (860) 920- 6662, FAX: (860) 920- 6661 |
| **Methodology** | Fluorescent antibody microscopic examination |
| **Availability** | Daily, Monday-Friday.<br>Off hours testing involving high risk exposure requires pre-approval by Epidemiology and Emerging Infections (860-509-7994). |
| **Specimen Requirements** | • Raccoon, skunk, wild carnivore, or groundhog that has bitten a person or domestic animal.<br>• Bat that has had direct contact with or been found in a room with a person.<br>• Domestic animals weighing less than 10 pounds.<br>• Animal head or brain of domestic animals weighing more than 10 pounds.<br>Refer to Instructions for Submitting Specimens for Rabies Testing on the reverse side of the Request for Rabies Examination form. |
| **Collection Kit/Container** | Specimens must be packaged in a rigid walled container such that no leakage or puncture will occur during transit. |
| **Collection Instructions** | Animals head must be fresh and not mutilated or crushed. |
| **Specimen Handling & Transport** | Specimens should be refrigerated.<br>Deliver to laboratory as soon as possible.<br>Specimens must be packaged in accordance with state and federal regulations ensuring that no puncture, breakage of leaking occurs during transit. |
| **Unacceptable Conditions** | Live animals are not accepted<br>Specimens with skull or brain crushed, mutilated, decomposed or exposed to excess heat<br>Livestock |
| **Requisition Form** | Request for Rabies Examination requisition may be found at the Dr. Katherine A. Kelley State Public Health Laboratory webpage located at,<br>www.ct.gov/dph/cwp/view.asp?a=3122&q=396860<br>Place completed (print clearly) requisition in an envelope and attach to the outside of each specimen container being submitted for testing. |
| **Required Information** | Name, address, and phone number of submitter (and/or Horizon profile #)<br>Name and address of owner<br>Exposure information |
| **Limitations** | The following animals will NOT be tested without consultation with DPH:<br>• Animals that have not bitten a person or domestic animal.<br>• Small rodents (mice, rat, chipmunk, mole, rabbit) that have bitten a person or domestic animal.<br>• Bats found in a home but not in a room where a person was present. |
| **Additional comments** | • Questions concerning human exposure, prophylaxis and submission of animals uncommon to rabies infection may be made to Epidemiology and Emerging Infections at (860) 509-7994.<br>• All positive results are telephoned to the submitter. |

# Respiratory Virus Antigen Panel

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| **Test Description** | Qualitative assay to detect respiratory virus nucleic acids. Includes:<br>• Influenza A (subtypes H1 and H3)<br>• Influenza B<br>• Respiratory syncytial virus (subtypes A and B)<br>• Parainfluenza 1<br>• Parainfluenza 2<br>• Parainfluenza 3<br>• Human metapneumovirus<br>• Rhinovirus/Enterovirus<br>• Adenovirus |
| **Test Use** | To aid in the diagnosis of disease in individuals exhibiting symptoms of upper or lower respiratory tract infection. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Multiplex Reverse Transcriptase Polymerase Chain reaction (RT-PCR) |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | • Nasopharyngeal swab submitted in viral transport media.<br>• Nasal aspirate, 2 mL, in a sterile screw capped container.<br>• Broncheoalveolar lavage (BAL), 2 mL, in a sterile screw capped container |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Collect sample within 3 days of symptom onset. Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton-tipped swabs, or wood shafted swabs. Immediately place swabs into viral transport media |
| **Specimen Handling & Transport** | Store specimen at 2-8° C.<br>Transport with an ice pack coolant.<br>Specimens must be received within 7 days after collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Improperly collected samples |
| **Requisition Form** | Clinical Test Requisition (select **Respiratory Virus Antigen Panel**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source of collection, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • This assay has limited detection of Adenovirus species C and serotypes 7a and 41. An alternate method (such as cell culture) may be needed if adenovirus infection is suspected and a negative result is obtained with this method.<br>• Primers for the detection of rhinovirus cross-react with enterovirus. A rhinovirus reactive result should be confirmed with an alternate method, such as immunofluorescence or virus culture. |

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# Shiga-toxin (+) Broth Culture

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| **Test Description** | Detection of Shiga Toxins I and II (verotoxins) from stool broth cultures |
| **Test Use** | To confirm the presence of enterohemorrhagic *Escherichia coli* (EHEC) in stool enrichment broths that have tested positive for the presence of shiga toxin; to recover shiga-toxin producing isolates for epidemiological characterization. |
| **Test Department** | Microbiology<br>Phone: (860) 920-6596 FAX: (860) 920-6721 |
| **Methodology** | Enzyme-immunoassay (EIA) |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Stool specimen inoculated into GN or Selenite media<br>Freshly passed stool specimen collected early in the course of the disease |
| **Collection Kit/container** | Stool specimens must be transferred into Cary Blair transport media.<br>To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Specimen Handling & Transport** | Store broth at 2-8° C.<br>Transport specimen at ambient temperature.<br>Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens received in expired media |
| **Requisition Form** | Clinical Test Requisition (select **Shiga-toxin (+) Broth Culture**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source of collection, date collected, and test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | A positive result may also be obtained by the presence of toxin produced by *Shigella dysenteriae* type 1 strains or other organisms. |

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# Syphilis Screen (VDRL)

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| **Test Description** | Non-treponemal assay for the detection of reagin in serum. Reactive results are titered to end point and confirmed with a treponemal-specific test |
| **Test Use** | Serologic screen to aid in the diagnosis of primary, secondary or tertiary syphilis and for post-treatment evaluation. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | VDRL (Venereal Disease Research Laboratory) slide flocculation test |
| **Availability** | Daily, Monday-Friday |
| **Specimen requirements** | 1-2 mL serum |
| **Collection Kit/Container** | To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store in refrigerator at 2-8° C. Specimens must be received within 5 days of collection.<br>Transport to laboratory with ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Serum that is hemolyzed or chylous |
| **Requisition Form** | Clinical test requisition (select **Syphilis Screen (VDRL))** |
| **Required information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, date of collection, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Non-treponemal tests are not specific for syphilis, nor do they have satisfactory sensitivity in all stages of illness. False positive reactions may occur from antibodies unrelated to syphilis infection. False positive VDRL tests caused by infection with other organisms or by other conditions can be identified by the accompanying nonreactive treponemal test result. |
| **Additional Comments** | Reactive VDRL screen results are titered to endpoint and confirmed with a treponemal-specific assay (*Treponema pallidum* Particle Agglutination Assay). |

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# Syphilis Confirmation (VDRL & TP-PA)

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| **Test description** | Detection of *Treponema pallidum* antibodies in human serum or plasma. Test results include a quantitative VDRL titer and a qualitative treponemal-specific assay result. |
| **Test use** | To confirm reactive results of non-treponemal syphilis screening (such as VDRL or RPR); as a diagnostic test in individuals with a nonreactive non-treponemal test result but with symptoms suggestive of late syphilis. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | VDRL slide flocculation test and *Treponema pallidum* Particle Agglutination Assay (TP-PA) |
| **Availability** | Daily, Monday-Friday |
| **Specimen requirements** | 1-2 mL serum (preferred), or<br>plasma collected using EDTA, Sodium Citrate or Heparin anticoagulants |
| **Collection Kit/Container** | To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Collection instructions** | Standard venipuncture technique |
| **Specimen Handling & Transport** | Store specimen at 2-8° C. Specimens must be received within 5 days of collection.<br>Transport with ice pack coolant (preferred) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimen that has leaked or container that has broken in transit<br>Serum that is hemolyzed or chylous |
| **Requisition Form** | Clinical Test Requisition (select **Syphilis Confirmation (VDRL & TP-PA))** |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, date of collection, test requested<br>Please ensure patient name on requisition matches that on the specimen. |
| **Limitations** | False positive TP-PA reactions occur in a small percentage (<1%) of normal or healthy individuals. False positives may occur in patients with other underlying conditions. |
| **Additional Comments** | Test results include both VDRL and TP-PA. All VDRL results are titered to endpoint. |

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# Syphilis CSF (VDRL only)

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|---|---|
| **Test Description** | Non-treponemal test (VDRL) for detection of reagin in cerebrospinal fluid. Reactive results are titered to endpoint. |
| **Test Use** | To rule out neurosyphilis in patients with neurological symptoms. |
| **Test Department** | Virology<br>Phone: (860) 920-6662 FAX: (860) 920-6661 |
| **Methodology** | VDRL slide flocculation test |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | 0.5 mL cerebrospinal fluid (CSF) submitted in a sterile screw capped collection tube |
| **Collection kit/ Container** | To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Aseptically obtained cerebrospinal fluid |
| **Specimen Handling & Transport** | Store at 2-8°C.<br>Transport to the laboratory on a cool pack (preferably) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit |
| **Requisition Form** | Clinical test requisition (select **Syphilis-CSF (VDRL only))** |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, date of collection, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | A false negative result can occur in some neurosyphilis patients. |
| **Additional Comments** | Reactive results are titered to endpoint. |

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# Varicella zoster IgG Antibody

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|---|---|
| **Test Description** | Qualitative assay for the detection of IgG antibody to varicella zoster virus (VZV) in human serum |
| **Test Use** | Determination of prior exposure to VZV; to determine varicella immune status. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Indirect Enzyme Immunoassay (EIA) |
| **Availability** | Test is performed weekly |
| **Specimen Requirements** | 1 mL serum |
| **Collection Kit/Container** | To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture |
| **Specimen Handling & Transport** | Store serum at 2-8° C. Specimens should be received within 48 hours of collection.<br>Transport with an ice pack coolant (preferable) or at ambient temperature. Avoid temperature extremes. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hemolyzed, lipemic, or icteric serum<br>Grossly contaminated serum |
| **Requisition Form** | Clinical Test Requisition (select **Varicella zoster IgG**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Additional Comments** | A positive result indicates prior exposure to VZV. The magnitude of the reported IgG level cannot be correlated to an endpoint titer and is not indicative of the total amount of antibody present. |

Revision: 8/25/15

# West Nile virus IgM Antibody

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| **Test Description** | Qualitative assay for the detection of IgM antibody to West Nile virus in human serum. |
| **Test Use** | As an aid to the laboratory diagnosis of West Nile virus infection in persons with symptoms of meningioencephalitis. |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX: (860) 920-6661 |
| **Methodology** | Enzyme-linked Immunosorbent Assay (ELISA) |
| **Availability** | Test is performed as needed |
| **Specimen Requirements** | 1 mL serum |
| **Collection Kit/Container** | To obtain a collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Standard venipuncture |
| **Specimen Handling & Transport** | Store serum at 2-8° C.<br>Transport with an ice pack coolant.<br>Specimens must be received within 48 hours of collection. |
| **Unacceptable Conditions** | Unlabeled specimen<br>Specimens that have leaked or containers that have broken in transit<br>Hyper-lipemic, hemolyzed, icteric, contaminated or heat-inactivated sera |
| **Requisition Form** | Clinical Test Requisition (select **West Nile virus IgM**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, date of birth, town of residence (city, state, zip)<br>Specimen type or source of collection, test requested, date of collection<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | • This assay may cross-react with antibodies produced to other flaviviruses (e.g., dengue virus, yellow fever virus, St. Louis encephalitis virus, Japanese encephalitis virus and others). These diseases must be excluded before confirmation of diagnosis.<br>• Positive results reported for children must be interpreted with caution due to cross reactivity with antibodies to enteroviruses. |
| **Additional Comments** | In a majority of infected patients, IgM antibody is detectable in serum by the eighth day of infection and remains for at least 1-2 months after illness onset. In some patients IgM antibody will be detectable for 1 to 2 years or longer. |

Revision: 8/25/15

# Virus Identification (Culture)

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| **Test Description** | Detection and identification of live viruses from human specimens |
| **Test Use** | Diagnosis of viral infections |
| **Test Department** | Virology<br>Phone: (860) 920-6662, FAX (860) 920-6661 |
| **Methodology** | Isolation in cell culture and identification by fluorescent microscopy or PCR |
| **Availability** | Daily, Monday-Friday |
| **Specimen Requirements** | Swab submitted in viral transport media. Use only polyester or Dacron-tipped swabs with plastic or aluminum shafts. Do NOT use calcium alginate or cotton-tipped swabs, or wood shafted swabs.<br>Fluid specimens (such as CSF or BAL) require 2 mL in an empty sterile screw capped container. |
| **Collection Kit/Container** | To obtain collection kit, refer to Collection Kit Ordering Information. |
| **Collection Instructions** | Specimens should be collected as soon as possible after illness onset, when the greatest amount of virus is present. Standard aseptic specimen collection procedures should be followed. Immediately place specimen into viral transport media. |
| **Specimen Handling & Transport** | Store and transport specimens at 2-8° C.<br>Specimens should be received within 48 hours of collection. |
| **Unacceptable Conditions** | Unlabeled specimens<br>Specimens that have leaked or containers that have broken in transit<br>Specimens improperly collected, stored or transported. |
| **Requisition Form** | Clinical Test Requisition (select **Virus Identification**) |
| **Required Information** | Name and address of submitter (and/or Horizon profile #)<br>Patient name or identifier, town of residence (city, state, zip), date of birth<br>Specimen type or source, date collected, test requested<br>Please ensure patient name on the requisition matches that on the specimen. |
| **Limitations** | Only live virus will be detected. A negative result does not rule out the presence of a virus in the specimen. Stage of illness, specimen collection technique, specimen handling and transport affect sensitivity of the test. |

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