

# **County of Orange**Public Health Laboratory

# **Laboratory Services Manual**

**Revised December 2025** 





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PHAB Accredited Health Department

### County of Orange Public Health Laboratory 8300 Marine Way, Suite 300 Irvine, CA 92618

Laboratory Director: Megan Crumpler

Hours: Monday – Friday 8:00 a.m. to 5:00 p.m.

### Accreditations:

 CLIA
 05D0643378

 State of California
 CPH974

 ELAP
 2545

 Federal Tax ID
 95-6000-928

 Medicare Provider Number
 05L009046

 NPI
 1063550929

Public Health Laboratory – Clinic Site 1725 W 17<sup>th</sup> Street, Room 101-L Santa Ana, CA 92706

CLIA TBD State of California TBD

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### LABORATORY PHONE NUMBERS

Main Line: (714) 834-8385 Fax: (714) 564-4068 Weekend-Emergency Line: (714) 720-1116

DEPARTMENT	SUPERVISOR	PHONE NUMBER
Laboratory Director	Megan Crumpler, PhD, HCLD	(714) 834-8385
Assistant Laboratory Director	Mariam Zhowandai, MPH	(714) 834-8385
Laboratory Manager	Tang Her	(714) 834-2843
Virology/Serology	Mihyun Kim	(714) 834-8390
Bacteriology/Bioterrorism	Karen McLean, MPH	(714) 834-8327
TB/Mycology/Parasitology	Tania Chiem	(714) 834-8292
Molecular	Victoria Buchanan	(714) 834-8521
Water Quality	Joseph Guzman	(949) 219-0423
Information Systems	Patrick Pham	(714) 834-8201
Central Processing	Paterno Lopez	(714) 834-8401
OCPHL – Clinic Site	Vida Mofidi	(714) 567-6248

### **OTHER USEFUL PHONE NUMBERS**

Reportable Diseases: (714) 834-8196 (FAX)
Communicable Disease Control Division: (714) 834-8180
Animal Care: (714) 935-6848
Vector Control: (714) 971-2421

To report a Public Health Emergency after hours (including a bioterrorism event) call: (714) 628-7008

Ask to speak to Public Health Services On-Call Official

# ORANGE COUNTY PUBLIC HEALTH LABORATORY SPECIMEN SUBMISSION INSTRUCTIONS

### I. SPECIMEN COLLECTION

- A. Collect specimens in containers appropriate for the test requested. See Test Request Information.
- B. Use media or collection containers with current expiration dates.
- C. Hold specimens under correct conditions before transport. See Test Request Information.
- D. Observe time restrictions on collection and transport to the laboratory.

### II. SPECIMEN IDENTIFICATION

- A. Label specimen container with patient's last name, first name, middle name or initial, and unique identifier. The patient's name and/or unique identifier on the specimen must be <u>exactly</u> as written on the test request form.
  - 1. Initials in place of the first or last name are unacceptable.
  - 2. The specimen cannot be processed without the patient name and/or unique identifier. See Specimen Quality Assurance Criteria.

### III. LAB WEB PORTAL ORDERING

- A. Required Information The specimen will not be processed without the following:
  - 1. Patient Information
    - a. Patient Name Enter the patient's last name, first name and middle name or initial. The patient's name and/or unique identifier on the test request form must be <u>exactly</u> as written on the specimen.
      - i. Initials in place of first or last name are unacceptable.
    - b. Patient Address Enter the patient's address
    - c. Date of Birth Enter the patient's birthdate
    - d. Gender Select the Gender from the options
  - 2. Submitter Information Check that the facility name, address, and default provider of the submitting client are accurate.
  - Specimen Source/Type Select the appropriate specimen source from the drop list.

- 4. Collection Information Enter the date (MM/DD/YYYY) and time (HH:MM) the specimen was collected.
  - Reference Test A test or tests must be requested by authorized individual.
    - a. Only Pure Culture and Isolates are accepted for Reference Tests. Select Pure Culture/Isolate (Microorganisms) under Sample Type section.
    - b. For Reference Test (send an actively growing, pure culture for identification) Also complete Cultured Referred As: (REQUIRED) section and include any relevant history or laboratory findings in the Other Test/Notes section located at the bottom of the laboratory slip.
  - 6. Clinical Test A test or tests must be requested by authorized individual.
    - a. Select the appropriate test group (Mycology, Serology, Virology, etc.)
       See Test Request Information.
    - b. Submit one specimen for each test requested.
    - c. Exceptions One specimen may be submitted for each of the following combinations:
      - i. Urine for urinalysis (UA) and Culture and Sensitivity (C&S) aerobic culture.
      - Stool for enteric bacteriology (Salmonella, Shigella, E. coli and Campylobacter).
      - iii. Genital swab for C&S aerobic culture (includes Gonorrhea culture and aerobic bacterial culture and sensitivity).
      - iv. Blood for multiple serological tests (RPR, Hepatitis Markers, HIV, and miscellaneous serology).
- B. Other Information Please fill out "Clinician Information" when applicable. This information will appear on the patient report.
  - Other Clinician Information Enter the name, address, and phone number
    of the attending physician if different from the client (submitter). This
    space may be used for additional clinic subdivisions or coded information
    (nurses codes, clinic code, etc.)
  - Client Accession Number Enter the patient identification number/code.
     Please be accurate.

### IV. TRANSPORT

- A. Ensure the test(s) requested are appropriate and correlate with specimen collected.
- B. All electronic orders are stored on the Public Health Laboratory Web Portal.
- C. Ensure the integrity of specimens before transport. Screw caps down tightly. Check for punctures or leakage.
- D. Print submitted Lab Web Portal Order Form in the outer pocket of the laboratory specimen bag.
- E. Place the labeled specimen in the zip lock section of the laboratory specimen bag. Zip the bag.
- F. Arrange for pick up or delivery. See Courier Schedule or Specimen Collection Stations.
- G. Changes to information on the test order request can be modified by the submitter within the Lab Web Portal or in writing. FAX authorized written change requests to (714) 564-4068.

### V. BIOTERRORISM RESPONSE

- A. Contact the laboratory at (714) 834-8385 if a bioterrorism agent is suspected.
- B. After hours including weekends and holidays, call (714) 628-7008 and ask to speak to Public Health Services On-Call Official.
- C. Isolates submitted for Select Agent testing must include the <u>supplemental</u> <u>form</u> and submitted on the <u>Lab Web Portal</u>.
- D. Consultation and prior authorization from the Public Health Laboratory is required for sending isolates for Select Agent rule-out or confirmation testing.

### VI. SPECIMEN QUALITY ASSURANCE CRITERIA

To help assure quality testing and to meet federal and state regulations, the laboratory has strict requirements for specimen identification.

- A. The following specimens do not meet quality assurance standards and will not be tested.
  - 1. Specimens or request forms lacking patient name and/or unique identifier.
  - Specimens with compromised quality (e.g., collected in improper or expired container, received leaking or broken, or past acceptable transport time).

- 3. Test request without client (submitter) number or client name and address.
- B. The following specimens do not meet quality assurance standards. The client will receive a telephone call requesting correction.
  - Test request without specimen source, date taken, or test requested will not be tested until the information is received.
  - 2. Missing information must be provided in writing by Fax (714) 564-4068 by 4:30 p.m. the next working day following notification.
- C. The following specimens do not meet quality assurance standards and will not be tested until corrected by a physician or nurse practitioner.
  - Specimens whose patient name does not match name on test request <u>exactly</u> (i.e., identical spelling of all names). We can only accept the first applied label on the specimen.
  - 2. Client will be notified of mismatched identification by telephone.
  - 3. A physician or nurse practitioner must come to the laboratory and make corrections on the test request form and sign the corrections.
  - 4. Corrections must be made by 4:30 p.m. the next working day following notification.

### VII. REFERRAL AND SEND-OUT SPECIMENS

- A. Referral testing and specimen send-out to reference laboratory are available.
   Contact OCPHL for additional information and consultation at (714) 834-8385.
- B. Some tests may require pre-approval and/or specific collection criteria. Refer to testing laboratory website for detailed instructions. See <u>the common</u> referral tests table below.
  - 1. Microbial Diseases Laboratory (MDL) Services and Test Catalog
  - Viral and Rickettsial Disease Laboratory (VRDL) Services and Test Catalog
    - a. VRDL Specimen Submittal Forms
    - b. VRDL Test Catalog
  - 3. CDC's Infectious Diseases Laboratories Test Directory
- C. Contact OC Communicable Disease Control Division at (714) 834-8180 for tests that require pre-approval.

# **Common Referral Tests**

Common referral tests	Reference laboratory	Additional information
Chagas disease serology ( <i>Trypanosoma cruzi</i> )	CDC	Supplemental information required
Chikungunya virus neutralizing antibody/PCR/serology	<u>VRDL</u>	
Dengue virus neutralizing antibody/PCR/serology	<u>VRDL</u>	
Dimorphic Fungi (Coccidioides, Histoplasma, Blastomyces) and Nocardia/Actinomycetes	MDL	
Enterovirus PCR/genotyping	<u>VRDL</u>	
Hepatitis A virus genotyping	<u>VRDL</u>	
Lymphogranuloma venereum (LGV) PCR	SFDPH	NAAT CT result must be positive
Mumps virus genotyping	<u>VRDL</u>	
Mycobacterium TB Complex – Molecular Detection of Drug Resistance (MDDR)	CDC	
Non-Variola Orthopoxvirus PCR	<u>VRDL</u>	
Rickettsia rickettsii RMSF serology	<u>VRDL</u>	
Rickettsia spp (Pan-Rickettsia) PCR	VRDL	
Rickettsia typhi serology	VRDL	
St. Louis encephalitis virus neutralizing antibody/PCR/serology	<u>VRDL</u>	
West Nile virus neutralizing antibody/PCR/serology	<u>VRDL</u>	
Yellow fever virus PCR	<u>VRDL</u>	
Zika virus neutralizing antibody/PCR/serology	<u>VRDL</u>	

### PUBLIC HEALTH LABORATORY WEB PORTAL

Effective January 1, 2026, the Orange County Public Health Laboratory (OCPHL) will not accept paper requisition forms for laboratory test orders. The OCPHL Lab Web Portal is a secure, HIPAA-compliant system that allows users to submit test orders, monitor order status, view, print, or download reports in real time.

To ensure uninterrupted testing and reporting services, all client facilities must complete the following three actions:

- 1. Confirm your facility is registered with the OCPHL Lab Web Portal (if not already registered)
- 2. All staff that will be using Lab Web Portal will need to create individual user accounts
- 3. Complete the Client Information Form (required for every facility)

Facility Registration (Only complete if not already registered)

Each facility must register an account in the OCPHL Lab Web Portal before staff can create individual accounts.

To confirm registration or to register your facility:

- 1. Visit <a href="https://prod.labwebportal.com/oc/#/auth/login">https://prod.labwebportal.com/oc/#/auth/login</a>
- 2. Check the organization list for your facility name
- 3. If your facility is not listed, please contact us to have your facility account created

### Individual User Registration

Once your facility is registered, all staff members who submit, track, or access laboratory orders must register individually for their own user accounts.

### To register:

- 1. Go to <a href="https://prod.labwebportal.com/oc/#/auth/login">https://prod.labwebportal.com/oc/#/auth/login</a>
- 2. Select your facility name from the organization list
- 3. Create your individual user account

Complete the Client Information Form (One form per facility is required)

All client facilities — regardless of registration status in OC Lab Web Portal — must complete the Client Information Form to ensure OCPHL has accurate and current contact and reporting details.

Go to <a href="https://ochca.sjc1.qualtrics.com/jfe/form/SV\_eMcZPYs0srkH8R8">https://ochca.sjc1.qualtrics.com/jfe/form/SV\_eMcZPYs0srkH8R8</a> to complete your Client Information Form.

### LABORATORY SUPPLIES

ITEM	USE	MAXIMUM QUANTITY	ORDER INFORMATION
Anaerobic Transport Tube	Bacterial Culture		Call the OCPH-Lab Bacteriology Department @ (714) 834-8327
Bacterial Culturettes (Modified Amies Clear Media)	Bacterial and Mycology Transport Media		
Para-Pak C&S Bottle (Culture and Sensitivity)	Enteric Pathogens i.e. Salmonella and Shigella	25 Vials	
Aptima Unisex Swab Specimen Collection Kit (Purple Box)	CT/GC NAAT / Trichomonas NAAT (Genital/Rectal/Throat)		
Aptima Urine Specimen Collection Kit (Yellow Box)	CT/GC NAAT NAAT (Nucleic Acid Amplification Testing)		
Aptima Multitest Swab Specimen Collection Kit (Orange Box)	CT/GC NAAT / Trichomonas NAAT (Vaginal/Throat/Rectal)		
Fresh Stool Collection Container	Tests requiring a fresh stool sample		
Modified Thayer Martin Agar (MTM) Plate	Gonorrhea Cultures		
O&P Collection Kit – 2 Vials (10% Formalin and PVA)	Identification of Ova and Parasites in Stool Samples	25 Kits	
Pinworm Paddle	Isolation and Identification of Pinworms		
QuantiFERON - TB Gold Plus	TB test		
BD E-Swab Transport System	Aerobic, Anaerobic, Fastidious Bacteria, and Candida auris screens.		
OC Specimen Bags	Bag to Transport specimen and Lab Slip together in separate compartments		
Sterile 15 ml Conical Tube	Specimen Container		
Sterile 50 ml Conical Tube	Specimen Container		
Typhoid Urine Kits	Typhoid Clearance Cases	25 Kits	
Viral Transport Media / Universal Transport Media (VTM/UTM)	Viral testing i.e. COVID, Herpes, Measles, Mumps, Influenza, VZV		
GasPak EZ CO2 Pouch	CO2 Generating System		
Zebra Printer Specimen Labels	Cerner Label		
		I	
Hemoccult Slide	Occult Blood Testing (Stool)		
Blood Serum Separator Tube (SST) Tiger Top, Plastic Only	Serology Testing		
Blood Collection Tube w/EDTA (Lavender Top and Pearl Top)	Viral Load Testing		Call Purchasing @ (714) 834-2188
Urine C&S Transport Kits Tube (Rubber Grey-Top)	Urine Cultures and Sensitivities (BD 364951)		(1 17) 557-2 100
Urinalysis Tube (Rubber Yellow/Red Top)	Urinalysis (BD 364992)		
Water Collection Bottles (Idexx-120 ml Bottle with Sodium Thiosulfate)	Water Sampling		Call the Water Quality Lab @ (949) 219-0423

### **SPECIMEN CONTAINERS**



### PUBLIC HEALTH LABORATORY SPECIMEN COLLECTION STATIONS

CITY	SITE ADDRESS	HOURS OPEN	COLLECTION LOCATION	COLLECTION TIME & DAYS
ANAHEIM	AHMC Anaheim Regional Medical CTR 1111 W La Palma Avenue (714) 774-1450	24 hours	<ul> <li>▶ Locate the Main Entrance</li> <li>▶ Enter the Main Lobby</li> <li>▶ Ask for the Main Laboratory</li> <li>▶ Follow signs to the laboratory</li> <li>▶ Drop-off specimen in the lab office</li> <li>▶ Indicate you have a specimen for Orange County Public Health Laboratory</li> <li>If door locked, go to ED to drop-off specimen (be sure to state specimen for OCPHL)</li> <li>▶ DO NOT REGISTER</li> </ul>	Monday-Friday 11:00 AM
LAGUNA HILLS	Saddleback Memorial MC 24451 Health Center Drive (949) 837-4500	24 hours	<ul> <li>▶ Locate the Main Entrance</li> <li>▶ Head straight past the gift shop to the elevators</li> <li>▶ Take the elevator to the basement (ground floor). Make 2 immediate lefts.</li> <li>▶ Follow signs to the laboratory.</li> <li>▶ Drop-off specimen to the laboratory receptionist or ring bell.</li> <li>▶ Indicate you have a specimen for Orange County Public Health Laboratory</li> <li>▶ DO NOT REGISTER</li> </ul>	Monday-Friday 11:00 AM
NEWPORT BEACH	Hoag Hospital 1 Hoag Drive (949) 764-4624	24 hours	<ul> <li>▶ Locate the Main Entrance</li> <li>▶ Enter the Main Lobby</li> <li>▶ Take the EAST elevator (to your left)</li> <li>▶ Laboratory is at the basement, (B) Floor</li> <li>▶ Drop-off specimen in the laboratory</li> <li>▶ Indicate you have a specimen for Orange County Public Health Laboratory</li> <li>▶ DO NOT REGISTER</li> </ul>	Monday-Friday 11:00 AM
FULLERTON	ST Jude Medical Center 101 E Valencia Mesa Drive Fullerton, CA 92835 (714) 446-7920	7 AM to 6 PM	<ul> <li>▶ Drive to the main entrance of the hospital to valet parking/or go to self-parking area</li> <li>▶ Locate the hospital entrance</li> <li>▶ Let the concierge/security know that you have a specimen for the laboratory</li> <li>▶ Enter the laboratory</li> <li>▶ Indicate you have a specimen for Orange County Public Health Laboratory</li> <li>▶ DO NOT REGISTER</li> </ul>	Monday-Friday 11:00 AM
SANTA ANA	Public Health Clinics 1725 W 17th Street (714) 834-8385	24 hours	<ul> <li>▶ Located the front entrance of the building, facing 17th Street.</li> <li>▶ Place specimen inside the white mailbox "Orange County Health Care Agency Laboratory Specimens Only".</li> </ul>	Monday-Friday 4:30 PM
IRVINE	Public Health Laboratory 8300 Marine Way, Suite 300 Irvine, CA 92618 (714) 834-8385	Monday-Friday 8:00 AM - 5:00 PM	<ul> <li>▶ Drive to the delivery side of building.</li> <li>▶ Deliver inside the receiving counter.</li> </ul>	Monday-Friday Last Pickup 4:30 PM

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Aeromonas Culture	BACT	B1	Screening procedure for isolation and identification of Aeromonas species utilizing conventional biochemical and matrix-assisted laser desorption ionization time of resolution (MALDI-TOF) techniques.	SPECIMEN: Stool CONTAINER: Stool transport bottles (Para Pak C&S), GN broth, or Rectal Swabs Note: The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool) Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable CIDT Screens: 7 days	1 week	Negative	Culture	87077

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	ТАТ	REFERENCE RANGE	TEST METHOD	CPT CODES
Bacterial Culture, Aerobic	BACT	B2	Identification of all aerobic organisms found using conventional biochemical and matrix-assisted laser desorption ionization time of resolution (MALDITOF) techniques.	SPECIMEN: Urine, sputum, eye, ear, genital, wounds, tissue, body fluid, and abscesses.  CONTAINER: Bacterial Culturettes;BD Urine C&S Preservative (Gray top); sputum collection bottles; unpreserved urine, body fluid and tissue in sterile container  COLLECTION: Bacterial Culturettes are used for genital, eye, ear, wounds and abscesses.  TRANSPORT CONDITIONS: Room Temperature (25±5°C): as soon as possible (body fluids and tissue); 2 hours (sputum); 1 day (genital swabs); 2 days (swabs); Refrigerated (5±3°C): 1 day (sputum and tissue), 24 hours (unpreserved urine), 3 days (preserved urine) Frozen (-15±5°C): Unacceptable	3 days	Negative	Culture	87040 87070
Bacterial Culture for Identification (Salmonella/Shigella)	BACT	B20	Salmonella/Shigella culture identification and confirmation utilizing conventional biochemical, serological, matrix-assisted laser desorption ionization time of resolution (MALDITOF), and whole genome sequencing techniques.	SPECIMEN: Pure culture isolates CONTAINER: Slanted tubed media preferred, motility deeps acceptable. COLLECTION: Do not refrigerate or freeze TRANSPORT CONDITIONS: Room Temperature (25±5°C): Acceptable Refrigerated (5±3°C): Acceptable Frozen (-15±5°C): Unacceptable	3 days	NA	Culture	87070 87077 87145

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Bacterial Culture, Anaerobic (Call laboratory before submitting specimens for consultation)	BACT	В3	Identification of all anaerobic organisms found utilizing conventional biochemical and matrix-assisted laser desorption ionization time of resolution (MALDI-TOF) techniques.	SPECIMEN: Deep wounds, abscesses, body fluids, tissue CONTAINER: Swab in anaerobic transport tube. COLLECTION: Swabs- Collect under anaerobic conditions using an anaerobe swab. Call the lab for anaerobic transport tubes. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 1 day Refrigerated (5±3°C): Unacceptable Frozen (-15±5°C): Unacceptable	2 weeks	Negative	Culture	87040 87075 87076
Bacterial Reference Culture for Identification, Aerobic	BACT	B4	Aerobic bacterial culture identification utilizing conventional aerobic biochemical testing, matrix-assisted laser desorption ionization time of resolution (MALDI-TOF), or whole genome sequencing techniques.	SPECIMEN: Pure culture isolate CONTAINER: Slant tube media preferred, sealed plates acceptable. COLLECTION: Do not refrigerate or freeze TRANSPORT CONDITIONS: Room Temperature (25±5°C): 2 days Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable	1 week	By report	Culture	87070 87077
Bacterial Reference Culture for Identification, Anaerobic	BACT	B5	Anaerobic bacterial culture identification utilizing conventional anaerobic biochemical testing techniques and matrix-assisted laser desorption ionization time of resolution (MALDI-TOF) techniques.	SPECIMEN: Pure culture isolate on swab or plated media CONTAINER: Swab in anaerobic transport tube. Isolates submitted on plated media in anaerobic transport bag. COLLECTION: Do not refrigerate or freeze TRANSPORT CONDITIONS: Room Temperature (25±5°C) = 2 days Refrigerated (5±3°C) = Unacceptable Frozen (-15±5°C) = Unacceptable	1 week	By report	Culture	87040 87075 87076

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Campylobacter Culture	BACT	В7	Screening procedure for isolation and identification of Campylobacter sp. utilizing conventional biochemical and matrix-assisted laser desorption ionization time of resolution (MALDI-TOF) techniques.	SPECIMEN: Stool CONTAINER: Stool transport bottles (Para Pak C&S), GN Broth or Rectal Swab Note: Buffered Glycerol Saline is unacceptable as a transport medium. The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool) Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable CIDT Screens: 7 days	5 days	Negative	Culture	87046
Candida auris Screen	MYCOL	М3	Screening procedure for Candida auris based on PCR.	SPECIMEN: Axilla/groin swabs. CONTAINER: BD ESwab collection and transport system with modified liquid Amies. See Mycology Specimen Collection guide for details. TRANSPORT CONDITIONS: Refrigerated (2-8°C) within 4 days.	24-120 hours (PCR) 9-13 days (culture)	Negative	PCR	87481 87106
Candida auris Reportable Disease Only	MYCOL	M4	Culture identified as Candida auris required by State to be sent to the Public Health Laboratory.	SPECIMEN: Pure culture on mycology slant or flask media, i.e., SAB or IMA. Specify isolate identification.  CONTAINER: Submit or mail in a double container according to the IATA Infectious Substances Shipping Guidelines.  TRANSPORT CONDITIONS: Room temperature (15-30°C) within 7 calendar days of identification.	4 days (Final)	By report	By report	87106

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Chlamydia/ Gonorrhea NAAT	VIRO	V1	Automated Qualitative Nucleic Acid Amplification, for the primary diagnosis of Chlamydia and/or Gonorrhea infections	SPECIMEN: Genital swab, vaginal swab, first catch urine, throat swab or rectal swab CONTAINER: Aptima swab specimen transport tube or urine transport tube. COLLECTION: See virology specimen collection quide for details. TRANSPORT CONDITIONS: Transport to laboratory at 2-30°C, within 30 days (urines), 60 days (swabs)	72 hours	Negative	Genprobe, Aptima COMBO 2	87491 87591
Clostridium botulinum Culture & Toxin Testing (Call Laboratory before submitting specimens)	BACT	В8	Clostridium botulinum culture and toxin testing for suspected foodborne and wound cases.	SPECIMEN: Pre-antitoxin serum, stool, gastric, tissue. Standard volumes: >8 ml of serum (not hemolyzed), 25 grams of unpreserved feces or 25-50 ml of gastric aspirate within 72 hours of onset. Tissue in sterile container inside an anerobic pouch. CONTAINER: Sterile screw cap container COLLECTION: Contact Orange County Communicable Disease Control Division (CDCD) at (714) 834-8180 for testing approval prior to submission for specimen collection and shipping requirements. After hours, on weekends and holidays you may speak to a Public Health Official by calling Orange County Communications Center at (714) 628-7008.  TRANSPORT CONDITIONS: Room Temperature (25±5°C): Unacceptable Refrigerated (5±3°C): 1 day Frozen (-15±5°C): Unacceptable	4 weeks	Negative	Send Out	99001
Cryptosporidium/ Giardia Screen	PARA	P2	Direct Fluorescent Antibody test and/or modified acid-fast stain. Cryptosporidium is a significant pathogen in HIV+ patients. This is a combination assay for both Cryptosporidium and Giardia.	SPECIMEN: Preserved stool. 3 collected every other day is strongly recommended.  CONTAINER: 2 vial stool kit with 10% formalin and PVA.  COLLECTION: Add stool to each vial up to the "fill" line immediately after passage. Mix thoroughly. See Parasitology specimen collection guide for O&P exam for details.  TRANSPORT CONDITIONS: Room temperature (15-30°C)	5 days (final)	Negative	DFA, Merifluor	87300 87015

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Cyclospora Screen	PARA	P3	Fluorescent microscopy and/or modified acid-fast stain on concentrated formalin specimens. <i>Cyclospora</i> is a significant pathogen in both immunecompromised and immunocompetent patients.	SPECIMEN: Preserved stool. 3 collected every other day is strongly recommended.  CONTAINER: 2-vial stool kit with 10% formalin and PVA.  COLLECTION: Add stool to each vial to the "fill" line immediately after passage. Mix thoroughly. See Parasitology specimen collection guide for O&P exam for details.  TRANSPORT CONDITIONS: Room temperature (15-30°C)	5 days (final)	Negative	UV Microscopy, Epifluorescen ce	87206 87015
Diphtheria Culture	BACT	В9	Screening procedure for isolation and identification of Corynebacterium diphtheriae in suspect cases of diphtheria utilizing conventional biochemical testing and matrix-assisted laser desorption ionization time of resolution (MALDITOF) techniques.	SPECIMEN: Throat exudate CONTAINER: Bacterial Culturette (Amies) COLLECTION: A throat swab taken from posterior pharynx, and areas of the tonsils showing dull white pseudo membrane. Avoid the tongue and uvula. Dacron swabs are best for collection. TRANSPORT CONDITIONS: Room Temperature (25±3°C): 1 day Refrigerated (5±3°C): 1 day Frozen (-15±5°C): Unacceptable	1 week	Negative	Culture	87077
Entamoeba histolytica/ E. dispar Differentiation	PARA	P4	EIA test. Entamoeba histolytica is pathogenic whereas E. dispar is not. Do not order test unless previous positive by routine O&P exam. EIA will confirm presence of the pathogen.	SPECIMEN: Unpreserved (fresh) stool. CONTAINER: Clean container COLLECTION: Fresh stool collected in clean container immediately after passage. See Parasitology specimen collection quide for details. TRANSPORT CONDITIONS: Refrigerated (2-8°C). Transport within 24 hours of collection	2 days (final)	Negative	EIA, TECHLAB	87337

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Escherichia coli (STEC) Culture	BACT	B10	Screening procedure for isolation and identification of Shiga toxin-producing Escherichia coli utilizing conventional biochemical, matrix-assisted laser desorption ionization time of resolution (MALDI-TOF), and whole genome sequencing techniques. Toxin production confirmed utilizing lateral flow immunoassay.	SPECIMEN: Stool CONTAINER: Stool transport bottles (Para Pak C&S), GN Broth or Rectal Swabs. Note: The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool) Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable for culture, acceptable for toxin assay only CIDT Screens: 7 days	1 week Culture 5 days Toxin 1 day	Negative	Culture	87046
Fusion Multiplex Assay	VIRO	V32	For primary diagnosis of acute SARS-CoV-2, Flu A, Flu B, and RSV.	SPECIMEN: NP Swab or Nasal Swab CONTAINER: UTM or VTM transport vial for swabs. COLLECTION: See virology specimen collection guide for details. TRANSPORT CONDITIONS: Transport to laboratory at 2-8°C within 96 hours (VTM/UTM)	3 days	Not Detected	Multiplexed RT-PCR, Hologic	87637

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Gonorrhea Culture	BACT	B12	Screening procedure for the isolation, identification and confirmation of Neisseria gonorrhoeae utilizing conventional biochemical testing and matrix-assisted laser desorption ionization time of resolution (MALDITOF) techniques.	SPECIMEN: Female endocervical or male urethral discharge, extragenital sites including rectal and throat (sterile cotton or synthetic swabs).  CONTAINER: MTM plate COLLECTION: Collect specimen on appropriate swab and inoculate directly onto MTM plate. Place the plate in the Ziplock bag, add CO <sub>2</sub> transport GasPak and seal. Be sure to test the bag to ensure that it is sealed.  NOTE: Do not refrigerate or freeze the plate. Can be held for up to 72 hrs at (36±1°C) in CO2 before transport to lab.  TRANSPORT CONDITIONS: Room Temperature (25±5°C): 1 day Refrigerated (5±3°C): Unacceptable Frozen (-15±5°C): Unacceptable	3 days	Negative	Culture	87081
Gonorrhea, Microscopic Exam	BACT	B14	A STAT Gram stain for the presence of intracellular gramnegative diplococci resembling Neisseria gonorrhoeae.  Note: a Gram stain should not be used as a diagnostic test for gonorrhea in females.	SPECIMEN: Female endocervical or male urethral discharge CONTAINER: Glass Slide with frosted edge COLLECTION: Prepare a thin smear by rolling the swab specimen on the frosted-side of a glass slide. TRANSPORT CONDITIONS: Room Temperature (25±5°C): Indefinite Refrigerated (5±3°C): Unacceptable Frozen (-15±5°C): Unacceptable	30 minutes	Negative	Microscopy	87205
Gonorrhea, Reference Culture for Identification	BACT	B13	Neisseria gonorrhoeae culture identification utilizing conventional biochemical testing and matrix-assisted laser desorption ionization time of resolution (MALDI- TOF) techniques.	SPECIMEN: Pure culture isolate CONTAINER: Chocolate Agar Slant COLLECTION: Inoculate a Chocolate Agar slant, incubate in CO₂ for 24 hours prior to submission. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 2 days Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable	1 week	By report	Culture	87077

Commented [MC1]: Same as syphilis darkfield comment

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
HCV Quantitative RNA	SERO	\$58	Automated real-time transcription-mediated amplification test	SPECIMEN: Serum, 1.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: Transport to lab within 6 hours. Refrigerated: Transport to lab within 5 days. Frozen: Unacceptable.	7 days	Not Detected	NAAT, Hologic	87522
Helminth Identification	PARA	P5	Helminth identification is made by microscopic exam.	SPECIMEN: Adult worm or proglottids CONTAINER: Clean jar or cup COLLECTION: Place in tap water or 0.85% saline. Do not use formalin or alcohol as a preservative. See Parasitology specimen collection guide for details. TRANSPORT CONDITIONS: Refrigerated (2-8°C)	3 days (final)	Negative	Microscopy	87169
Hepatitis A IgG Antibody	SERO	S76	Chemiluminescent microparticle immunoassay (CMIA) for qualitative detection of IgG antibody to Hepatitis A virus	SPECIMEN: Serum, 0.100 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (15-30°C): 4 days Refrigerated (2-8°C): 8 days. Frozen (-20°C): serum only	2 days	Non-reactive	CMIA, Abbott	86708

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Hepatitis A IgM Antibody	SERO	<b>S</b> 19	Chemiluminescent microparticle immunoassay (CMIA) for qualitative detection of IgM antibody to Hepatitis A virus	SPECIMEN: Serum, 0.100 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (21-30°C): 3 days Refrigerated (2-8°C): 7 days Frozen (-20°C): serum only	2 days	Non-reactive	CMIA, Abbott	86708 86709
Hepatitis Acute Panel, includes: Hepatitis A IgM, S19 Hepatitis B Surface Ag, S22 Hepatitis B Core IgM, S20 Hepatitis C Total Ab, S24 (includes confirmation, if required, S58)	SERO	S18	Chemiluminescent microparticle immunoassay (CMIA) for diagnosis of acute Hepatitis caused by Hepatitis A or Hepatitis B or Hepatitis C, see individual tests for description.	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: 1 day Refrigerated (2-8°C): 6 days Frozen (-20°C): serum only	2 days	Negative	CMIA, Abbott	86803 86704 86705 86706 86709 87341
Hepatitis B Surface Antigen Antibody	SERO	S23	Chemiluminescent microparticle immunoassay (CMIA) for qualitative determination of antibody to Hepatitis B surface antigen, as a response to vaccination or immune status.	SPECIMEN: Serum, 0.350 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (21-22°C): 3 days Refrigerated (2-8°C): 7 days Frozen -20°C: serum only	2 days	Negative	CMIA , Abbott	86706

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Hepatitis B Core IgM Antibody	SERO	S20	Chemiluminescent microparticle immunoassay (CMIA) for qualitative detection of IgM antibody to Hepatitis B core antigen.	SPECIMEN: Serum, 0.100 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (24-30°C): 3 days Refrigerated (2-8°C): 7 days Frozen (-20°C): serum only	2 days	Non-reactive	CMIA , Abbott	86705
Hepatitis B Core Total Antibody	SERO	S21	Chemiluminescent microparticle immunoassay (CMIA) for qualitative of IgG and IgM antibodies to Hepatitis B core antigen.	SPECIMEN: Serum, 0.15 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (23-30°C): 3 days Refrigerated (2-8°C): 7 days Frozen (-20°C): serum only	2 days	Non-reactive	CMIA , Abbott	86704
Hepatitis B Surface Antigen Antibody	SERO	\$23	Chemiluminescent microparticle immunoassay (CMIA) for qualitative determination of antibody to Hepatitis B surface antigen, as a response to vaccination or immune status.	SPECIMEN: Serum, 0.350 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (21-22°C): 3 days Refrigerated (2-8°C): 7 days Frozen -20°C: serum only	2 days	Negative	CMIA , Abbott	86706

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Hepatitis B Surface Antigen Screen	SERO	S22	Chemiluminescent microparticle immunoassay (CMIA) for the qualitative detection of Hepatitis B surface antigen.	SPECIMEN: Serum, 0.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature (15-30°C): 4 days Refrigerated (2-8°C): 6 days Frozen (-20°C): serum only	2 days	Negative	CMIA , Abbott	87340
Hepatitis C Ab Total, includes confirmation if required (HCV Quantitative PCR, S58)	SERO	S24	Chemiluminescent microparticle immunoassay (CMIA) for the qualitative detection of IgG and IgM antibodies to Hepatitis C virus	SPECIMEN: Serum, 1.0 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature:6 hours Refrigerated (2-8°C): 5 days Frozen (-20°C): serum only	2 days	Negative	CMIA , Abbott	86803
Hepatitis Screening Panel, includes: Hepatitis B Surface Ag Antibody, S23 Hepatitis B Surface Ag Screen, S22 Hepatitis B Core Total, S21 Hepatitis C Total Ab, S24 (includes confirmation, if required, S58)	SERO	S29	Chemiluminescent microparticle immunoassay (CMIA) for determination of patient's immune status to Hepatitis B virus and Hepatitis C virus. See individual tests for description.	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: 1 day Refrigerated (2-8°C): 6 days Frozen (-20°C): serum only	2 days	Negative	CMIA , Abbott	86706 87340 86704 86803

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Herpes Simplex & Varicella Zoster NAAT	VIRO	V23	For detection and differentiation of HSV-1, HSV-2, and VZV from cutaneous or mucocutaneous lesions	SPECIMEN: Lesion swab CONTAINER: UTM or VTM transport vial. COLLECTION: Collect cells from the base of cutaneous or mucocutaneous lesion by rolling swab over area. Immediately place in UTM or VTM. See virology specimen collection guide for details. TRANSPORT CONDITIONS: Room Temperature (up to 30°C): 48 hours Refrigerated (2-8°C) or frozen (-20°C): 7 days.	7 days	Negative	Solana, Helicase- Dependent Amplification	87798
HIV 1 Antigen Nucleic Acid Test, (HIV-1 Qualitative PCR) Per CDC recommendations	SERO	Perform ed when required (see S31)	Automated real-time transcription mediated amplification test	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: See S31	2 days	Negative	Hologic, Aptima HIV-1 Quant Dx Assay	87535
HIV 1 Viral Load Aptima	SERO	S68	Automated real-time transcription mediated amplification test	SPECIMEN: Plasma, 1.5 ml CONTAINER: Vacutainer Lavender Top (EDTA) COLLECTION: Aseptically collect 3ml of blood in Lavender Top (EDTA) tube or Plasma Preparation Tube (PPT). Draw approximately 2.5 times the volume of whole blood as the volume of plasma required. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: Transport to lab within 24 hours. Refrigerated: Separate within 24 hours. Transport to lab within 3 days. Frozen: Centrifuged PPT can be frozen at -20C or -70C for up to 90 days.	4 days	Not Detected	Hologic, Aptima HIV-1 Quant Dx Assay	87536

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
HIV 1,2 Ag/Ab Screen, Includes confirmation if required (HIV 1,2 Antibody Differentiation, and HIV 1 Qualitative PCR, if required)	SERO	S31	Chemiluminescent microparticle immunoassay (CMIA) HIV Ag/Ab Combo (4th generation immunoassay), for qualitative detection of HIV p24 antigen and antibodies to (HIV-1 group M and group O) and HIV-2, followed by confirmation if required.	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: 3 days Refrigerated (2-8°C): 7 days Frozen (-20°C):serum only	7 days	Negative	CMIA, Abbott	86702 86703 86689 87389 87535
HIV 1,2 Antibody Differentiation	SERO	Perform ed when required (see S31)	Immuno- chromatographic assay for antibodies to HIV-1 and HIV-2	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: See S31	2 days	Negative	Bio-Rad, Geenius HIV1/2 Supplemental Assay	86702
Influenza PCR	VIRO	V8	CDC Human Influenza Virus Real-Time, RT- PCR Diagnostic Panel (CDC Flu rRT-PCR Dx Panel) <u>OR</u> Hologic Fusion SARS-CoV- 2/Flu A/B/RSV . Typing of Influenza A (H3, pdm H1, H5, H7). Negative specimens may be reflexed to Respiratory Pathogen Panel.	SPECIMEN: NP Swab, Nasal Swab, Throat Swab, Nasal Aspirates, Nasal Washes, BAL, Bronchial Wash, Tracheal Aspirate, Sputum, and Lung Tissue.  CONTAINER: UTM or VTM transport vial for swabs and sterile screw cap container for aspirates, washes, or tissue.  COLLECTION: See virology specimen collection guide for details.  TRANSPORT CONDITIONS:  Transport to laboratory at 2-8°C as soon as possible.	72 hours	Not Detected	Real Time RT-PCR, CDC OR Hologic Fusion SARS-CoV- 2/Flu A/B/RSV	87501 87502 87503 87637

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Isospora Screen	PARA	P6	Fluorescent microscopy and/or modified acid fast on concentrated formalin specimens. <i>Isospora</i> is a significant pathogen in HIV+ patients.	SPECIMEN: Preserved stool. 3 collected every other day is strongly recommended.  CONTAINER: 2-vial stool kit with 10% formalin and PVA  COLLECTION: Add stool to each vial to the "fill" line immediately after passage. Mix thoroughly. See Parasitology specimen collection guide for O&P exam for details.  TRANSPORT CONDITIONS: Room temperature (15-30°C)	5 days (final)	Negative	UV Microscopy, Epifluorescen ce	87206 87015
Legionella Culture	BACT	B16	Screening procedure for the isolation and identification of Legionella utilizing conventional biochemical testing, matrix-assisted laser desorption ionization time of resolution (MALDI-TOF), and direct fluorescent antibody (DFA) techniques.	SPECIMEN: Tissue, lower respiratory secretions CONTAINER: Sterile screw cap container COLLECTION: Tightly closed container. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 30 minutes Refrigerated (5±3°C): 24 hours Frozen (-15±5°C): Unacceptable	1 week	Negative	Culture/ Microscopy	87077
Leptospira Culture	BACT	B104	Screening procedure for isolation and identification of Leptospira utilizing conventional biochemical testing techniques.	SPECIMEN: Urine, whole blood, CSF. Multiple specimens must be taken at least one day apart. CONTAINER: Sterile screw cap container (urine, CSF). Vacutainer tube with sodium polyanethol sulfonate SPS (whole blood) COLLECTION: Urine specimens - cleanse genitals, collect midstream, dilute 1:10 with 1% bovine serum albumin for transport. Ship urine, CSF and blood specimens at ambient temperature (25±5°C). Submit whole blood or CSF during the first 7-10 days of illness. Submit urine after 7-10 days of illness. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 1 hour (Urine, CSF); as soon as possible (blood) Refrigerated (5±3°C): Unacceptable Frozen (-15±5°C): Unacceptable	3 weeks	Negative	Culture	87081 87077

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Malaria/Blood Parasite Screen	PARA	P7	Plasmodium is detected by microscopic exam of Giemsa-stained blood smear. Other blood parasites can be observed as well.	SPECIMEN: Blood drawn in an EDTA tube or taken by fingerstick; or prepared/stained thick and thin smears. Slides should be made within one hour of draw.  COLLECTION: Blood drawn between chills with successive draws at 6, 12, and 24 hours is recommended. Blood drawn any time is still acceptable. See Parasitology specimen collection guide for details.  TRANSPORT CONDITIONS: Room temperature (15-30°C). If sending blood, submit within one hour. Indicate travel history on lab slip.	24 hours	Negative	Microscopy	87207
Measles Antibody IgG	SERO	S47	Chemiluminescent Immunoassay (CIA) for detection of Measles for immune status (IgG).	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: Contact Orange County Communicable Disease Control Division (CDCD) at (714) 834-8180 for testing approval prior to submission. See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: Acceptable Refrigerated: Acceptable Frozen: -20°C, serum only	2 days	Positive	LIAISON Measles IgG, Diasorin	86765
Measles Antibody IgM	SERO	S43	Indirect Fluorescent Antibody for identification of acute cases (IgM).	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: Contact Orange County Communicable Disease Control Division (CDCD) at (714) 834-8180 for testing approval prior to submission. See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: Acceptable Refrigerated: Acceptable Frozen: -20°C, serum only	2 days	Negative	Measles-M Test System, Bion	86765

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Measles PCR	VIRO	V9	For primary diagnosis of acute Measles infection.	SPECIMEN: NP swab or Throat swab (Throat swab preferred), Urine CONTAINER: UTM or VTM transport vial for swabs and sterile screw cap container for Urine specimens.  COLLECTION: Contact Orange County Public Health Communicable Disease Control Division at (714) 834-8180 for testing approval prior to submission. Collect specimens during rash stage of disease, swab specimens must be in UTM or VTM. Urine specimens in sterile screw cap container. See virology specimen collection guide for details.  TRANSPORT CONDITIONS: Transport to laboratory at 2-8°C as soon as possible.	72 hours	Negative	Real Time RT-PCR	87798
<i>Microsporidia</i> Screen	PARA	P8	Calcofluor White and/or modified trichrome stains on concentrated formalin specimens. Microsporidia are emerging pathogens and significant in HIV+ patients.	SPECIMEN: Preserved stool. 3 collected every other day is strongly recommended.  CONTAINER: 2-vial stool kit with 10% formalin and PVA  COLLECTION: Add stool to each vial to the "fill" line immediately after passage. Mix thoroughly. See Parasitology specimen collection quide for O&P exam for details.  TRANSPORT CONDITIONS:  Room temperature (15-30°C) within 72 hrs.	5 days	Negative	Microscopy	87015 87206
Mumps PCR	VIRO	V12	For primary diagnosis of acute Mumps infection	SPECIMEN: Buccal Swab CONTAINER: UTM or VTM transport vial COLLECTION: Contact Orange County Public Health Communicable Disease Control Division at (714) 834-8180 for testing approval prior to submission. See virology specimen collection quide for details. TRANSPORT CONDITIONS: Transport to laboratory at 2-8°C as soon as possible.	72 hours	Negative	Real Time RT-PCR	87798

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Mycobacterium Culture and Sensitivity	МҮСОВ	Т1	Tests include Acid Fast smear, culture on solid and liquid media. Identification of Mycobacteria by MALDI-TOF. Susceptibility performed on M. tuberculosis by MGIT broth-based method on first isolate and after 3 months if culture is still positive.	SPECIMEN: Bone marrow, CSF, gastric lavage fluid, respiratory (aerosol, sputum, bronchial washings, transtracheal aspirates), stool, tissue biopsies, and urine.  CONTAINER, COLLECTION and TRANSPORT CONDITIONS: See Mycobacteriology specimen collection guide for details.  TRANSPORT CONDITIONS: Refrigerated (2-8°C): submit within 24 hours of collection. Specimen holding time is 96hrs.	24-72 hours (AFS) 53 days (final)	By report	Culture, MGIT 960, BBL	87015 87206 87116 87118 87556 87188 87153 87149
Mycobacterium Culture for Identification	МҮСОВ	T2	Acid Fast Bacteria identification by MALDI-TOF If M. tuberculosis, susceptibility is performed on first isolate and after 3 months if culture is still positive.	SPECIMEN: Pure culture on appropriate slanted media, i.e. LJ or 7H10. Specify isolate identification. CONTAINER: Submit or mail in a double container according to the IATA Infectious Substances Shipping Guidelines.  TRANSPORT CONDITIONS: Room temperature (15-30°C)	24-72 hours (AFS) 42 days (final)	By report	Culture, MGIT 960, BBL	87118 87188 87206 87153 87149
Mycobacterium Smear	МУСОВ	ТЗ	Acid Fast Smear	SPECIMEN: Blood, bone marrow, CSF, gastric lavage fluid, respiratory (aerosol, sputum, bronchial washings, transtracheal aspirates), stool (HIV patients only), tissue biopsies, and urine.  NOTE: Processed specimen is preferred.  CONTAINER, COLLECTION and TRANSPORT CONDITIONS: See Mycobacteriology specimen collection quide for details.  TRANSPORT CONDITIONS:  Refrigerated (2-8°C): submit within 24 hours of collection	24-72 hours	Negative	Fluorochrome Smear	87015 87206

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Mycobacterium tuberculosis Complex Nucleic Acid Amplification Test (NAAT)	МҮСОВ	T4	GeneXpert MTB/RIF assay for the detection of <i>M. tuberculosis</i> complex and Rifampin resistance. FDA approved method for smear negative and smear positive respiratory specimens.	SPECIMEN: Processed Respiratory specimens. Unprocessed respiratory specimens – prior approval required. CONTAINER, COLLECTION and TRANSPORT CONDITIONS: See M. tuberculosis complex NAAT Specimen Collection guide for details.	24-72 hours	Negative	Cepheid GeneXpert MTB/RIF	87206 87556
Mycobacterium tuberculosis Culture for Reportable Disease Only	МҮСОВ	Т7	Culture identified as <i>M. tuberculosis</i> required by State to be sent to Public Health Laboratory.	SPECIMEN: Pure culture on appropriate slanted media, i.e., LJ or 7H10. Specify isolate identification.  CONTAINER: Submit or mail in a double container according to the IATA Infectious Substances Shipping Guidelines.  TRANSPORT CONDITIONS: Room temperature (15-30°C) submit within 72 hrs	4 days (prelim) 49 days (final)	By report	By report	99001
Mycobacterium tuberculosis Culture Identification and Susceptibility	мусов	Т6	Identification is based on MALDI-TOF. M. tuberculosis susceptibility tests are performed by a broth-based method on the first isolate and after 3 months if culture is still positive.	SPECIMEN: Pure culture on appropriate slanted media, i.e., LJ or 7H10. Specify isolate identification.  CONTAINER: Submit or mail in a double container according to the IATA Infectious Substance Shipping Guidelines.  TRANSPORT CONDITIONS: Room temperature (15-30°C) within 72 hrs	24-72 hours (AFS) 49 days (final)	By report	Culture, MGIT 960, BBL	87206 87118 87188 87116 87149

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Mycology Primary Specimen Identification (Fungus/Yeast)	MYCOL	M1	A combination of morphologic, biochemicals, and MALDI-TOF is performed for identification.	SPECIMEN: Abscess, biopsy, CSF, ear, mucocutaneous membranes, hair, nails, respiratory, skin, and urine.  CONTAINER, COLLECTION and TRANSPORT CONDITIONS: See Mycology Specimen Collection guide for details.	4 weeks (final)	Negative	Culture	87101 87102 87103 87106 87107 87206 87153 87149
Mycology Reference Culture Identification (Fungus/Yeast)	MYCOL	M2	A combination of morphologic, biochemicals, and MALDI-TOF is performed for identification.	SPECIMEN: Pure culture on mycology slanted media, i.e., SAB or IMA. Specify isolate identification or rule out. Do not send plates.  CONTAINER: Submit in a double container according to the IATA Infectious Substances Shipping Guidelines.  TRANSPORT CONDITIONS: Room temperature (15-30°C) within 72 hrs	4 -6 weeks (final)	By report	Culture	87106 87107 87149 87153
Norovirus PCR	VIRO	V7	For primary diagnosis of acute Norovirus infection.	SPECIMEN: Stool CONTAINER: Sterile screw cap container COLLECTION: Contact Orange County Public Health Communicable Disease Control Division at (714) 834-8180 for testing approval prior to submission. Collect stool in a sterile screw top container during acute phase within 48-72 hours of onset. TRANSPORT CONDITIONS: Refrigerated (2-8°C): Transport to laboratory at as soon as possible, no later than 5 days after collection.	72 hours	Negative	Real Time RT-PCR	87797

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Occult Blood	BACT	B17	The Hemoccult test is a rapid, qualitative method for detecting fecal occult blood which may be indicative of gastrointestinal disease. It is not a test for colorectal cancer or any other specific diseases.	SPECIMEN: Feces CONTAINER: Hemoccult slide or clean container COLLECTION: Make a thin smear of the fecal specimen on the guaiac paper of the Hemoccult slide. If Hemoccult slides are unavailable, a stool specimen less than 4 days old may be submitted in a clean container labeled with the submitter's ID, patient's name and date of collection. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 14 days Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable	1 day	Negative	Hemoccult/ Smith Kline	82271
Ova and Parasite Exam	PARA	P9	Screening procedure for presence of ova and parasites. A concentrated wet preparation and a permanent trichrome stain are examined.	SPECIMEN: Preserved stool. 3 collected every other day is strongly recommended.  CONTAINER: 2-vial stool kit with 10% formalin and PVA  COLLECTION: Add stool to each vial to the "fill" line immediately after passage. Mix thoroughly. See Parasitology specimen collection guide for details.  TRANSPORT CONDITIONS: Room temperature (15-30°C)	5 days	Negative	Microscopy	87177 87209

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Pinworm Exam	PARA	P11	Examination of pinworm paddle for presence of pinworm ova by light microscopy	SPECIMEN: Rectal area. CONTAINER: Falcon pinworm paddle or a scotch tape prep on a microscope slide. COLLECTION and TRANSPORT CONDITIONS: See Parasitology specimen collection guide for details.	3 days (final)	Negative	Microscopy	87172
QuantiFERON-TB Gold	SERO	S78	Interferon Gamma Release Assay through chemiluminescent immunoassay (CIA), indirect test for <i>M. tuberculosis</i> infection	SPECIMEN: Whole Blood CONTAINER: 1 set QuantiFERON®-TB Gold Plus; 1.0 ml each tube: Nil control (grey cap, white ring), TB1 Antigen (green cap, white ring), TB2 Antigen (yellow cap, white ring), Mitogen Control (purple cap, white ring). COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature within 16 hours. DO NOT REFRIGERATE.	2 days	Negative	CIA, Diasorin	86480
Rabies DFA	VIRO	V2	Direct Fluorescent Antibody, for detection of Rabies infection in animal specimens	SPECIMEN: Freshly severed animal head, delivered by Animal Care Services or fresh unpreserved animal brain (no formalin).  CONTAINER: Any sterile transport container.  COLLECTION: Remove brain from cranium of suspected animal, do not place in formalin.  TRANSPORT CONDITIONS:  Transport to laboratory on wet ice or refrigerated, within 24 hrs.	24 hours	Negative	FITC Anti- Rabies Fujirebio and Light Diagnostics Rabies DFA Reagent II	87003 87299

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Respiratory Pathogen Panel	VIRO	V20	For detection and identification of multiple respiratory viral and bacterial nucleic acids.	SPECIMEN: NP Swab CONTAINER: UTM or VTM transport vial. COLLECTION: See virology specimen collection guide for details. TRANSPORT CONDITIONS: Refrigerated (2-8°C): Transport to laboratory as soon as possible. NOTE: BioFire RP2.1 detects a single-copy Pertussis Toxin promoter target in B. pertussis. Other PCR tests for B. pertussis target the multi- copy IS481 insertion sequence (present in both B. pertussis and B. holmesii) and are therefore capable of detecting lower levels of B. pertussis (i.e. more sensitive). If B. pertussis is specifically suspected, a B. pertussis molecular test that is FDA-cleared for use on patients suspected of having a respiratory tract infection attributable to B. pertussis only should be used.	3 days	Not Detected	Multiplexed RT- PCR, BioMerieux	0202U
Salmonella/ Shigella Culture	BACT	B19	Screening procedure for isolation and identification of Salmonella and Shigella utilizing conventional biochemical, serological, matrixassisted laser desorption ionization time of resolution (MALDITOF), and whole genome sequencing techniques.	SPECIMEN: Stool or Urine CONTAINER: Stool transport bottles (Para Pak C&S), Urine = BD Urine Transport Kit (gray top), GN Broth or Rectal Swab.  Note: The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. Urine specimens must be processed within 4 hours if refrigerated (2-8°C) or transport in BD tubes within 96 hours.  COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens.  TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool and urine) Refrigerated (5±3°C): 4 hours (Unpreserved urine) Frozen (-15±5°C): Unacceptable CIDT Screens: 7 days	5 days	Negative	Culture	87045 87077

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Salmonella/ Shigella Reference Culture	BACT	B20	Salmonella/Shigell a culture identification and confirmation utilizing conventional biochemical, serological, matrix- assisted laser desorption ionization time of resolution (MALDI- TOF), and whole genome sequencing techniques.	SPECIMEN: Pure culture isolates CONTAINER: Slanted tubed media preferred, motility deeps acceptable. COLLECTION: Do not refrigerate or freeze TRANSPORT CONDITIONS: Room Temperature (25±5°C): Acceptable Refrigerated (5±3°C): Acceptable Frozen (-15±5°C): Unacceptable	5 days	Negative	Culture	87045 87077
Serology Sendout	SERO	S111	Sent To CDC or VRDL. Additional information required. Please contact laboratory: 714-834-8326	Refer to CDC or VRDL requirements.	Refer to CDC or VRDL	By Report	Sent Out	86790
Streptococcus Group A Culture (Throat Screen)	BACT	B21	Screening procedure for isolation and identification of Group A Streptococcus, a common cause of bacterial pharyngitis.	SPECIMEN: Throat exudate CONTAINER: Bacterial Culturette COLLECTION: A throat swab taken from the tonsillar area and/or posterior pharynx, with care taken to avoid the tongue and uvula. Dacron swabs are best for collection of Group A Streptococcus specimens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 1 day Refrigerated (5±3°C): 1 day Frozen (-15±5°C): Unacceptable	2 days	Negative	Culture	87081

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Syphilis Confirmation (TP-PA)	SERO	Performed when required (see S90)	Passive Agglutination, confirmation test for Syphilis RPR, last step for Syphilis reverse testing algorithm	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: See S90	7 days	Negative	Agglutination, manual Fujirebio	86780
Syphilis Darkfield, Microscopic Exam	BACT	B22	Darkfield microscopy is used to demonstrate the presence of Treponema pallidum in lesions or aspirates in early-stage syphilis.	SPECIMEN: Serous fluid from genital lesion CONTAINER: Glass slide with coverslip COLLECTION: Collect specimen prior to antimicrobial therapy. Clean the surface of the lesion with saline, and blot dry. Gently remove any crusts, and discard. Abrade superficially until slight bleeding occurs. Wipe away the first few drops of blood. Apply gentle pressure at lesion base, touching clear exudate in ulcer base with a glass slide. Place coverslip and transport immediately to laboratory.  TRANSPORT CONDITIONS: Room Temperature (25±5°C): 15 minutes Refrigerated (5±3°C): Unacceptable Frozen (-15±5°C): Unacceptable	30 minutes	Negative	Microscopy	87210
Syphilis RPR	SERO	Performed when required (see S90)	Macroscopic non-treponemal flocculation card test, screening assay, second step of Syphilis reverse testing Algorithm.	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection guide for details. Plastic tubes only. TRANSPORT CONDITIONS: See S90	3 days	Non-reactive	Flocculation, manual	86592

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Syphilis RPR No Reflex	SERO	\$80	Macroscopic non- treponemal flocculation card test, screening assay for patients with a history of syphilis infection	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: 72 hours Refrigerated (2-8°C): 7 days Frozen (-20°C): serum only	3 days	Non-reactive	Flocculation, manual	86592
Syphilis Screen Immunoassay (reflex to RPR and TP-PA, if required)	SERO	<b>S</b> 90	Chemiluminescent microparticle immunoassay (CMIA) for qualitative of IgG and IgM antibodies to <i>Treponema pallidum</i> . First step for Syphilis reverse testing algorithm.	SPECIMEN: Serum, 2.5 ml CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: 72 hours Refrigerated (2-8°C): 7 days Frozen (-20°C): serum only	2 days	Non-reactive	CMIA, Abbott	86592 86593 86780

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
<i>Toxoplasma</i> IgG Antibody	SERO	S64	Chemiluminescent Microparticle Immunoassay for the detection of IgG antibodies to Toxoplasma gondii.	SPECIMEN: Serum, 0.5 mL CONTAINER: Serum Separator Tube (SST), (1 Tiger Top, or 1 Gold Top), or 1 Red Top. COLLECTION: See serology specimen collection quide for details. Plastic tubes only. TRANSPORT CONDITIONS: Room Temperature: Acceptable Refrigerated: Acceptable Frozen: -20°C, serum only	2 days	Non-reactive	Alinity Toxoplasma IgG Antibody, Abbott	86777
Trichomonas Nucleic Acid Amplification Test	VIRO	V17	Automated Qualitative Nucleic Acid Amplification, for the primary diagnosis of Trichomonas vaginalis	SPECIMEN: Genital or vaginal swab Females only CONTAINER: Aptima Unisex Swab Collection kit for genital swabs. Aptima Vaginal Swab Specimen Collection Kit for Aptima Multitest Swab Specimen Collection Kit for vaginal swabs. COLLECTION: See virology specimen collection guide for details. TRANSPORT CONDITIONS: Transport to laboratory at 2-30°C, within 60 days. NOTE: The performance of this assay has not been evaluated in adolescents less than 14 years of age.	7 days	Negative	Hologic, Aptima Trichomonas vaginalis Assay	87661
Urinalysis	BACT	B25	Routine urinalysis includes the examination of physical and chemical characteristics, and the quantitation of microscopic structures in the urinary sediment.	SPECIMEN: Urine (standard volume = 8 mL) CONTAINER: BD vacutainer with preservative tube (red/yellow top). COLLECTION: Clean-catch first morning void is the preferred specimen; however, any fresh random urine specimen is acceptable for chemical analysis. Midstream collection into a sterile container and then transferred to a BD vacutainer with preservative tube. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 3 days (preserved in BD tube) Refrigerated (5±3°C): 3 days (preserved in BD tube) Frozen (-15±5°C): Unacceptable	1 day	Color = Pale yellow to amber Turbidity = Clear to slightly hazy SG = 1.015-1.025 pH = 4.5-8.0 Glucose = Neg. Ketones = Neg. Blood = Neg. Protein = Neg. Bilirubin = Neg. Urobilinogen 0.1-1.0 Nitrite = Neg. Leukocyte = Neg. Casts = <50/lpf RBC = Neg./Rare WBC = Neg./Rare Epithelial Cells = Few	Clinitek, Microscopy	81001

TEST NAME	DEPT	TESTS	DESCRIPTION	SPECIMEN REQUIREMENTS	TAT	REFERENCE RANGE	TEST METHOD	CPT CODES
Vibrio Culture	BACT	B27	Screening procedure for the isolation and identification of <i>Vibrio sp.</i> utilizing conventional biochemical, serological, and matrix-assisted laser desorption ionization time of resolution (MALDI-TOF) techniques.	SPECIMEN: Stool CONTAINER: Stool transport bottles (Para-Pak C&S), GN Broth or Rectal Swabs Note: Buffered glycerol saline is unacceptable. The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. Urine specimens must be processed within 4 hours if refrigerated (2-8°C) or transport in BD tubes within 96 hours. COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool) Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable CIDT Screens: 7 days	1 week	Negative	Culture	87077
Virology Sendout	VIRO	V103	Sent To VRDL. Additional information required. Please contact laboratory: 714-834-8385	Refer to <u>VRDL</u>	Refer to VRDL	By report	Send Out	No CPT Code is associated
Yersinia Culture	BACT	B29	Screening procedure for the isolation and identification of Yersinia sp. utilizing conventional biochemical testing and matrix-assisted laser desorption ionization time of resolution (MALDITOF) techniques.	SPECIMEN: Stool CONTAINER: Stool transport bottles (Para-Pak C&S), GN Broth or Rectal Swabs. Note: The use of rectal swabs (Bacterial Culturettes) should be limited to patients with active disease, infants and children from whom feces may be difficult to obtain. COLLECTION: The specimen of choice is the diarrheal stool collected during the acute stage of the disease. Keep the stool specimen cool, do not incubate or refrigerate. Portions containing blood or mucus usually contain the highest number of pathogens. TRANSPORT CONDITIONS: Room Temperature (25±5°C): 4 days (Preserved stool) Refrigerated (5±3°C): Not recommended Frozen (-15±5°C): Unacceptable CIDT Screens: 7 days	1 week	Negative	Culture	87077

# **Mycobacteriology Specimen Collection Guide**

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
	Body fluids	Abdominal (peritoneal, paracentesis, dialysis, bile): Collect 10-15 ml aseptically into sterile tube. Pericardial, Synovial: Collect 3-5 ml aseptically into sterile tube. Exudates: Collect 3-5 ml aseptically into sterile tube.	Refrigerated (2-8°C) within 24hrs of collection.
	Bone marrow	Collect into SPS blood collection tube.	Room temperature (15-30°C) within 24hrs of collection. Hold at 35°C ± 2°C if > 24hrs.
	CSF	Collect 3-5 ml into sterile screw-cap tube.	Room temperature (15-30°C) within 24hrs of collection.
	Gastric lavage fluid	Collect 5-10 ml gastric specimen in sterile container. Have patient fast 8-12 hr; collect specimen in the morning before eating. Specify time of collection on container.	Refrigerated (2-8°C). Transport within 4 hours. If specimen transport is delayed (>4 hours from collection) add 100 mg sodium carbonate.
	Respiratory specimens (processed)	Send at least 1.0 ml of specimen processed with NALC/NaOH procedure (see CDC guidelines for procedure).	Refrigerated (2-8°C) within 7days of collection.
Mycobacterium Culture and Sensitivity	Respiratory specimens (unprocessed)	Collect 5-7 ml of respiratory secretion in sterile container without fixatives or preservatives.  Aerosol (induced sputum): inhalation of warm hypertonic saline induces coughing and production of thin, watery specimen. Preferred specimen.  Sputum: collect material brought up after a deep, productive cough.  Bronchial washings: using a bronchoscope inject saline in segmental (for bronchial wash) or subsegmental (for bronchoalveolar lavage) bronchus. Suction saline out into a sterile container.  Transtracheal aspirate: collect aspirate in sterile container.	Refrigerated (2-8°C) within 24hrs of collection. Specimen holding time is 96hrs.
	Stool (for detection of M. avium complex in HIV patients)	Collect into a sterile wax free container without fixative or preservative.	Refrigerated (2-8°C) within 24hrs of collection.
	Tissue biopsy (lymph nodes, deep wedge biopsies, external sources)	Collect tissue into sterile container without fixatives or preservatives.  If the tissue is small or not immediately sent to the lab, add sterile saline.	Refrigerated (2-8°C) within 24hrs of collection.
	Urine	Wash the external genitalia then immediately collect 30-50 ml of a single early morning midstream urine sample into a sterile container.	Refrigerated (2-8°C) within 24hrs of collection.

## **Mycobacteriology Specimen Collection Guide**

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Mycobacterium	Gastric Lavage fluid	Collect 5-10 ml gastric specimen in sterile container. Have patient fast 8-12 hr; collect specimen in the morning before eating. Specify time of collection on container.	Refrigerated (2-8°C) Transport within 4 hours. If specimen transport delayed >4 hours from collection, add 100 mg sodium carbonate.
tuberculosis complex NAAT	Respiratory specimens (processed)*	Send at least 0.7 ml of specimen processed with NALC/NaOH procedure (see CDC guidelines for procedure). For unprocessed specimens, prior approval is required.	Refrigerated (2-8°C) if transported within 7 days of collection. If longer, transport frozen on dry ice (-20°C or colder).

\*Additional testing is dependent on amount of specimen available.
Additional specimen may be necessary to perform all tests.

# **Mycology Primary Specimen Collection Guide**

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
	Abscess	Clean abscess surface with sterile saline or 70% alcohol. Collect fluid/abscess material into clean tube and swab in Modified Amies Clear media (available at lab). Fluid or abscess material is preferred over swab.	Room temperature (15-30°C) within 72 hrs
	CSF	Collect 3-5 ml into sterile screw-cap tube.  Transport to laboratory within 24 hours.	Room temperature (15-30°C) within 24hrs
	Ear	Collect swab of infected area and transport in Modified Amies Clear media (available at lab).	Room temperature (15-30°C) within 72 hrs
	Hair	Collect 5-10 hairs (and base of shaft) in clean tube or container, in paper envelope, or directly inoculated onto IMA media (Inhibitory Mold Agar).	Room temperature (15-30°C) within 72 hrs
	Mucocutaneous membranes	Collect swab of infected area (e.g., mouth, vagina, urethra) and transport in Modified Amies Clear media (available at lab).	Room temperature (15-30°C) within 72 hrs
Mycology Primary Specimen Identification	Nails	Clean nail with 70% alcohol. Scrape nail and discard. Scrape nail again from infected area and save in sterile container, paper envelope, or directly inoculated onto IMA media (Inhibitory Mold Agar).	Room temperature (15-30°C) within 72 hrs
	Respiratory	Collect 7-10 ml of aerosol, early morning sputum, tracheal aspirate, lung biopsy, or bronchoscopy specimen in sterile container.	Refrigerated (2-8°C) within 72 hrs
	Skin	Clean skin with 70% alcohol. Scrape lesion at the active margin but do not draw blood. Place scrapings in clean container or directly inoculate onto IMA media (Inhibitory Mold Agar).	Room temperature (15-30°C) within 72 hrs
	Swabs for <i>C.</i> auris surveillance	Collect swab of axilla and groin area with BD Eswab Collection and Transport System with Modified Amies Clear medium (available at lab).	Refrigerated (2-8°C) within 96hrs
	Tissue	Submit in sterile container with a small amount of sterile saline. Do not allow tissue to dry out.	Room temperature (15-30°C) within 72 hrs
	Urine	Collect 25-30 ml of catheterized or early morning clean catch urine into a sterile container.	Refrigerated (2-8°C) within 72 hrs

# Parasitology Specimen Collection Guide

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Ova and parasite (O&P) exam	Preserved stool	Collect stool into clean dry container. Do not contaminate with urine or water. Transfer stool to fill lines of both the Formalin (pink top) and PVA (blue top) vials provided. Do not refrigerate.	Room temperature (15-30°C) within 72 hrs
Entamoeba histolytical E. dispar differentiation	Fresh stool	Collect stool into clean dry container with a screw-capped lid. Do not contaminate stool with urine or water.  Transport to lab within 24 hours.	Refrigerated (2-8°C) If transport will be delayed, stool should be frozen.
Pinworm Exam	Pinworm paddle	Collect early in morning before bathing or bowel movement. Apply sticky side of paddle to the perianal area multiple times. Return paddle to tube and snap lid closed.	Room temperature (15-30°C) within 72 hrs
Helminth ID	Worm, tapeworm proglottid or scolex	Place worm into a clean container. Cover with saline or cold water.	Refrigerated (2-8°C) within 72 hrs
Malaria ID	Giemsa- stained Smears	Fingerstick blood is preferred over blood collected into EDTA.  Smears must be prepared within 1 hour of collecting blood.  Submit both thick and thin smears stained with Giemsa stain.	Room temperature (15-30°C) within 72 hrs

SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Serum	Fresh: Aseptically collect 8-10 ml of whole blood in into a tiger top Serum Separator Tubes (SST). <b>Do not freeze whole blood.</b> Refrigerated/Frozen: If transportation to the lab cannot be accomplished within 5 days, centrifuge the specimen at 800-1,600 x g for 20 minutes and refrigerate for up to 5 days. Transfer serum to a sterile polypropylene tube and freeze at -20°C for longer periods of time. Ship the serum on cool packs or frozen on dry ice	Hold at 2-8°C prior to transportation to the laboratory. Transport to the laboratory within 5 days of collection.
Serum	Aseptically collect 8-10 ml of whole blood in one of the following Serum Separator Tubes (SST); tiger top, gold top, or a red top may be used instead of the SST. If a delay of more than 48 hours is anticipated prior to delivery to the lab, centrifuging is recommended (allow blood to sit at least 30 minutes at 15-30°C before centrifuging or refrigerating). Plastic tubes only. <b>Do not freeze whole blood.</b>	Hold at room temperature (15-30°C) up to 1 day. Hold at 2-8°C for up to 5 days. Transport to the laboratory at 2-8°C within 5 days of collection. See above for specific transport requirements.
Plasma	Fresh: Aseptically collect 1 lavender top tube of whole blood with EDTA anticoagulant or one Plasma Preparation Tube (PPT). Mix well by gently inverting the tube 5-6 times. Plastic tubes only. <b>Do not freeze whole blood.</b> Refrigerated/Frozen: If transportation to the lab cannot be accomplished within 24 hours, centrifuge the specimen at 800-1,600 x g for 20 minutes and refrigerate for up to 3 days. Transfer plasma to a sterile polypropylene tube and refrigerate for up to 5 days or freeze at -20°C for longer periods of time. Ship the plasma on cool packs or frozen on dry ice.	Hold at 2-8°C prior to transportation to the laboratory. Transport to the laboratory within 24 hours of collection. Plasma may be frozen at -20°C and shipped to the lab on dry ice.
Whole Blood	Collect 1 mL of blood by venipuncture directly into each of the four (4) unique QuantiFERON ®-TB Gold Plus (QFT-Plus) blood collection tubes. Tubes must be at room temperature prior to collection. Under or overfilling of the tubes may lead to erroneous results.  Shake the tubes ten times just firmly enough to ensure the entire surface of the tube is coated with blood, to solubilize antigens on the tube walls.  OCPHL can only accept specimens collected Monday — Thursday.	Hold at room temperature (15-30°C) prior to transportation to the laboratory. Transport to the laboratory within 16 hours of collection.  DO NOT REFRIGERATE  IF tubes cannot be transported to the laboratory within 16 hours of collection: Incubate tubes at 37 +/- 1°C for 16-24 hours. After incubation, hold tubes at 4°C to 27°C and transport to the
	Serum  Serum  Plasma	Fresh: Aseptically collect 8-10 ml of whole blood in into a tiger top Serum Separator Tubes (SST). Do not freeze whole blood.  Refrigerated/Frozen: If transportation to the lab cannot be accomplished within 5 days, centrifuge the specimen at 800-1,600 x g for 20 minutes and refrigerate for up to 5 days. Transfer serum to a sterile polypropylene tube and freeze at -20°C for longer periods of time. Ship the serum on cool packs or frozen on dry ice  Aseptically collect 8-10 ml of whole blood in one of the following Serum Separator Tubes (SST); tiger top, gold top, or a red top may be used instead of the SST. If a delay of more than 48 hours is anticipated prior to delivery to the lab, centrifuging is recommended (allow blood to sit at least 30 minutes at 15-30°C before centrifuging or refrigerating). Plastic tubes only. Do not freeze whole blood.  Fresh: Aseptically collect 1 lavender top tube of whole blood with EDTA anticoagulant or one Plasma Preparation Tube (PPT). Mix well by gently inverting the tube 5-6 times. Plastic tubes only. Do not freeze whole blood.  Refrigerated/Frozen: If transportation to the lab cannot be accomplished within 24 hours, centrifuge the specimen at 800-1,600 x g for 20 minutes and refrigerate for up to 3 days. Transfer plasma to a sterile polypropylene tube and refrigerate for up to 5 days or freeze at -20°C for longer periods of time. Ship the plasma on cool packs or frozen on dry ice.  Collect 1 mL of blood by venipuncture directly into each of the four (4) unique QuantiFERON ®-TB Gold Plus (QFT-Plus) blood collection tubes. Tubes must be at room temperature prior to collection. Under or overfilling of the tubes may lead to erroneous results.  Whole Blood  Shake the tubes ten times just firmly enough to ensure the entire surface of the tube is coated with blood, to solubilize antigens on the tube walls.

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Chlamydia/Gonorrhea and/or Trichomonas nucleic acid amplification	Genital swab - Females	Aptima Unisex Swab Specimen Collection Kit: Use the white shaft swab with red printing to remove excess mucus from the cervical os and surrounding mucosa and discard.  Insert the specimen collection swab (blue shaft swab in the package with green printing) into the endocervical canal and gently rotate clockwise for 10 to 30 seconds to ensure adequate sampling. Withdraw the swab carefully by avoiding any contact with the vaginal mucosa.  Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube. Discard and replace the tube if the contents are spilled. Carefully break the swab shaft at the score line against the side of the tube and discard the top portion of swab shaft. Re-cap the swab specimen transport tube tightly.	After collection, transport and store the swab in the swab specimen transport tube at 2°C to 30°C until tested. Specimens must be tested within 60 days of collection.
Chlamydia/Gonorrhea nucleic acid amplification	Rectal swab	Aptima Multitest Collection Kit: Use the small-tipped specimen swab only (DO NOT USE THE LARGE-TIPPED SWAB FOR SPECIMEN COLLECTION). Do not touch the soft tip or lay the swab down. Hold the swab, placing your thumb and forefinger in the middle of the swab shaft covering the score line. Do not hold the swab shaft below the score line.  Carefully insert the swab into the rectum about 1-2 inches past the anal margin and gently rotate the swab clockwise for 5-10 seconds. Withdraw the swab without touching the skin.  Unscrew the tube cap while holding the swab. Place the small-tipped swab into the transport vial, making sure that there is fluid in the bottom of the vial. If contents of the tube are spilled, use a new collection kit. Break the swab at the score line and replace the screw cap securely. Discard the top portion of the swab shaft. Tightly screw the cap onto the tube.	After collection, transport and store the swab in the swab specimen transport tube at 2°C to 30°C until tested. Specimens must be tested within 60 days of collection.
Chlamydia/Gonorrhea nucleic acid amplification	Throat swab	Aptima Multitest Collection Kit: Peel open the swab package and remove the blue shaft small tipped swab (DO NOT USE THE LARGE-TIPPED SWAB FOR SPECIMEN COLLECTION). Do not touch the soft tip or lay the swab down. Hold the swab, placing your thumb and forefinger in the middle of the swab shaft covering the score line. Do not hold the swab shaft below the score line.  Carefully insert the swab into the throat ensuring contact with bilateral tonsils (if present) and the posterior pharyngeal wall, then withdraw the swab without touching the inside of the cheeks or tongue.  Unscrew the tube cap while holding the swab. Place the small-tipped swab into the transport vial, making sure that there is fluid in the bottom of the vial. If contents of the tube are spilled, use a new collection kit. Break the swab at the score line and replace the screw cap securely. Discard the top portion of the swab. Tightly screw the cap onto the tube.	After collection, transport and store the swab in the swab specimen transport tube at 2°C to 30°C until tested. Specimens must be tested within 60 days of collection.

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Chlamydia/Gonorrhea nucleic acid amplification	Urine	Aptima Urine Specimen Collection Kit: Patient should not urinate at least one hour prior to collection of specimens.  Collect the first 20-30 ml of voided urine (the first part of the stream) in a sterile, plastic, preservative-free, urine collection cup.  Remove the cap and transfer 2 mL of urine into the urine specimen transport tube using the disposable pipette provided. The correct volume of urine has been added when the fluid level is between the black fill lines on the urine specimen transport tube label (SPECIMENS OUTSIDE THESE LINES WILL NOT BE ACCEPTED). Re-cap the urine specimen transport tube tightly.	Urine specimens in Urine Collection Kit can be transported and stored at 2-30°C. Specimens must be tested within 30 days of collection.
Chlamydia/Gonorrhea and/or Trichomonas nucleic acid amplification	Vaginal swabs	Aptima Multitest Swab Specimen Collection Kit: Remove the swab aseptically. Discard and use a new swab if contaminated. Do not touch the soft tip or lay the swab down. Hold the swab, placing your thumb and forefinger in the middle of the swab shaft covering the score line. Do not hold the swab shaft below the score line.  Insert the swab into the vagina about 2 inches past the introitus and gently rotate the swab for 10-30 seconds. Make sure the swab touches the vaginal wall. Remove the swab without touching the skin.  Unscrew the tube cap while holding the swab. Discard and replace with a new transport tube if the contents are spilled. Place the swab into the tube and the break off the swab at the black score line against the side of the tube. Discard the top portion of the shaft. Screw the cap tightly and label the tube.	After collection, transport and store the swab in the swab specimen transport tube at 2°C to 30°C until tested. Specimens must be tested within 60 days of collection.
Fusion Multiplex Assay and/or Influenza PCR	Nasal swabs	Use a dry synthetic fiber swab to swab each nostril. Do not touch the soft tip or lay the swab down. Carefully insert the swab in the first nostril 1/2-3/4 inches. Rotate with moderate pressure against as much of the wall of the anterior nares regions as possible in a large circular path inside the nose at least 4 times (~10-15 seconds). Using the same swab, repeat on the other nostril. Place swab in a sterile, screwcapped vial with 2-3 ml of viral transport medium.	Transport to the laboratory as soon as possible, no later than 72 hours (96 hours for Fusion Assay), at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at -70°C and transported on dry ice.
Fusion Multiplex Assay,Respiratory Pathogen Panel and/or Influenza PCR	Nasopharynge al (NP) swab	Use a dry synthetic fiber swab. Tilting the head back 70 degrees, gently and slowly insert swab through the nostril parallel to the palate until resistance is encountered. The nasopharynx is contacted when the distance inserted is equivalent to that from the nostril to the ear. Gently rub and roll swab, leaving it in place for several seconds to absorb secretions. Slowly remove swab while rotating it and place in a sterile, screw-capped vial with 2-3 ml of viral transport media.	Transport to the laboratory as soon as possible, no later than 72 hours (96hours for Fusion Assay), at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at -70°C and transported on dry ice.

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
HSV & VZV nucleic acid amplification	Lesion	Collect specimens of vesicle fluids from the bases of lesions before crusting and healing have begun. Use a swab to obtain both fluid and cells from open lesions and break swab into a screw capped vial with 2-3 ml of viral transport medium.	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at -70°C and transported on dry ice.
Influenza PCR	Bronchial wash	Bronchial and bronchoalveolar washes are usually collected from hospitalized patients using specialized (invasive) procedures. Specimen should be transferred to a sterile leak proof container before transporting to the laboratory.	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at - 70°C and transported on dry ice.
Influenza PCR	Nasal washings	While the patient's head is tilted back slightly, instill several milliliters of sterile saline into each nostril; bring the head forward and allow the saline to drain into a small sterile container held beneath the nose. A small catheter with suction may be used with infants. Pour the contents into a sterile, screw-capped vial.	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at - 70°C and transported on dry ice.
Measles PCR Or Influenza PCR	Pharyngeal/Throat swabs (PCR)	Using a synthetic fiber swab (cotton or calcium alginate swabs or swabs with wooden shafts are not acceptable), dry or moistened with viral transport medium, rub the tonsils and posterior pharynx and place in sterile, screw capped vial with 2-3 ml of viral transport medium.	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at - 70°C and transported on dry ice.
Measles PCR	Urine	Clean, voided urine specimens collected in sterile conventional containers, while not the specimen of choice, are acceptable for some viruses. No special collection requirements are needed. Specimens should be kept refrigerated until transported to the laboratory.	Transport to the laboratory as soon as possible, within 7 days, at 2-8°C. Urine cannot be frozen.

TEST	SPECIMEN	COLLECTION INSTRUCTIONS	TRANSPORT
Mumps PCR	Buccal Swab	To obtain a buccal specimen, massage the parotid gland area (the space between the cheek and teeth inside the mouth just below the ear) on each side of the face for about 30 seconds prior to collection of the buccal secretions.  Using a Dacron or other polyester swab (cotton or calcium alginate swabs or swabs with wooden shafts are not acceptable), rub the inside of each cheek with the same swab for about 10 seconds. Sweep the swab between the upper and lower molar areas of each side of the mouth. Ensure the swab is moist with saliva when finished swabbing. Place the swab in a tube containing 2-3 ml of viral transport media (VTM) or universal transport media (UTM).	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C. Specimens that cannot be transported within 72 hours should be frozen at -70°C and transported on dry ice.
Norovirus PCR	Stool	Collect a 2-5 gram portion of stool (formed or liquid) and place in a sterile leakproof container. No transport medium is required.	Transport to the laboratory as soon as possible, no later than 72 hours, at 2-8°C.

## **Orange County List of Reportable Diseases**

California Code of Regulations, Title 17, Section 2500, mandates that certain communicable and non-communicable diseases/conditions be reported to the local health department using specified methods and time frames. The List of Reportable Diseases, which summarizes disease reporting requirements, may be downloaded from this website and freely copied.

It is important that you report notifiable diseases/conditions to the county where the patient resides so that appropriate follow-up can occur. The Confidential Morbidity Report (CMR) form may be used to report notifiable diseases/conditions to Orange County Public Health.

For more information on reporting, please see the <u>List of Laboratory Reportable</u>

<u>Diseases in California and List of Reportable Diseases in Orange County</u>





MISSION: To protect and improve the health of Orange County residents, in collaboration with our system partners, by providing essential laboratory services in support of public health through quality, timely, and accurate test results.