



Southern Nevada Public Health Laboratory



Client Services Manual

08.2025

Southern Nevada Public Health Laboratory

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(See appendix A for an alphabetical list of all tests)

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SNPHL CONTACT INFORMATION

ADDRESS, PHONE, FAX

Southern Nevada Public Health Laboratory (SNPHL)
700 S Martin Luther King Blvd.
Las Vegas, Nevada 89106

Phone: 702 759 1020 or Clinical Laboratory 702 759 1140
24 Hour Phone: 702 336 8363
Fax: 702 759 1444

AFTER HOURS EMERGENCY CONTACT INFORMATION

SNPHL laboratory contact

On-call lab personnel (24/7 access) 702 336 8363

Nevada State Public Health Laboratory emergency contact

Emergency Response coordinator 775 682 6236

SNPHL KEY PERSONNEL

Laboratory Director:	Horng-Yuan Kan, PhD HCLD (ABB)	702 759 1113
Laboratory Manager:	William Bendik, MPH MLS (ASCP) ^{CM}	702 759 1026
BT Preparedness:	Ilene Bautista, MPH MLS (ASCP) ^{CM}	702 759 1021
Clinical Laboratory Supervisor:	Nicholas Gabler, MLS (AMT)	702 729 0977
Microbiology Supervisor:	Cesar Dela Pena, MS MLS (ASCP) ^{CM}	702 759 1022
Molecular Supervisor:	Erin BATTERY, MBA, MLS (ASCP) ^{CM}	702 759 1367
Virology Supervisor:	Sui Ching Phung, PhD MB (ASCP) ^{CM}	702 759 1753
LRN Responsible Official:	William Bendik, MPH MLS (ASCP) ^{CM}	702 759 1026
Biosafety Officer:	Anna Angeles, MD MLS (AMT)	702 759 1226
Lab Admin Coordinator:	Betty Souza-Lui	702 759 1245

BUSINESS HOURS

8 am – 4:30 pm Monday through Friday

The laboratory observes official Southern Nevada Health District holidays

For hours the laboratory is closed, SNPHL maintains a standby call service to monitor calls through phone service and a secure website which will respond for information and emergencies. If required, the laboratory will provide service after hours at the discretion of the Lab Director.

SPECIMEN DELIVERY

Specimens are accepted via Courier Service or Federal Express, Monday – Friday.
If other than courier service is required, contact the lab.

Southern Nevada Public Health Laboratory



General Information

MISSION

The protection of the safety and well-being of Southern Nevada citizens and visitors shall be the mission of the District in developing and operating the Southern Nevada Public Health Laboratory (SNPHL).

OBJECTIVES

The following priorities will serve as the objectives for the SNPHL:

- The provision of rapid, thorough and quality analyses of specimens related to an actual or suspected bioterrorism event
- The provision of laboratory support for the assessment, investigation, prompt diagnosis and control of communicable disease outbreaks
- The collection and analysis of data to rapidly identify emerging disease
- The provision of timely, quality testing results in support of other core public health functions such as food-borne disease investigations
- The SNPHL shall provide data to SNHD Epidemiology, SNHD IT Informatics department, and for reference and surveillance of disease and contaminants
- The SNPHL may research the nature, cause, diagnosis, and control of disease
- The SNPHL shall work together with the District and other local health care providers to protect the public's health
- The SNPHL shall provide backup support to the Nevada State public health laboratory in Reno.

HISTORY

In 2002, the Southern Nevada Health District and the State of Nevada recognized that Las Vegas was the only major metropolitan area in the United States (U.S.) without the availability of a public health laboratory within 100 miles. Because Las Vegas had been identified by the federal government as one of the prime targets for bioterrorist activities, the availability of public health laboratory services was determined to be an integral component of core public health and law enforcement activities.

In addition to suspect bioterrorism agent analysis, other public health laboratory matters (such as sexually transmitted diseases, foodborne outbreak investigations, surveillance of infectious/communicable diseases, emerging pathogen analysis, and coordination with multiple state and federal laboratory partners) necessitated additional services.

The Southern Nevada Public Health Laboratory has since evolved into a system of multiple laboratories providing public health and clinical services to all locations of the Health District. The laboratory system is Clinical Laboratory Improvement Amendments (CLIA) certified and licensed by the State of Nevada to perform high complexity testing. It is owned and managed by the Southern Nevada Health District.

Our Clients

Primary users of the laboratories include the Southern Nevada Health District Clinical Services Division, SNHD Office of Epidemiology and Disease Surveillance, sentinel laboratories seeking reference or consultation services.

Laboratory Services

The laboratories are engaged in activities designed to aid in the diagnosis, treatment and prevention of communicable diseases and to assess the general health of the population. The laboratories provide diagnostic and follow-up services in the areas or surveillance studies of etiologic agents in the areas of bacteriology, virology and serology.

The public health laboratory provides hospitals, clinics and commercial laboratories with a wide range of services including identification and confirmation of unknown pathogenic organisms, focal point for coordinating investigations of infectious disease outbreaks and mediating the transfer of information between agencies. The staff performs testing for sexually transmitted diseases, enteric, and microbial identification.

Response to Biological Terrorism

SNPHL participates in Laboratory Response Network (LRN) initiated by the Centers for Disease Control and Prevention (CDC), Atlanta. The LRN is a collaborative approach between public and private laboratories and is focused heavily on improving laboratory-based bioterrorism and chemical terrorism response capabilities in the United States.

SNPHL ORGANIZATION

The Southern Nevada Public Health Laboratory(SNPHL) is comprised of four departments, each of which reports to the Laboratory Manager, who in turn reports to the Laboratory Director. The Laboratory Director reports to the Community Health Services Division Director. The departments that comprise SNPHL are the Clinical Laboratory Department, Microbiology Department, Virology Department and the Molecular Detection Department.

Clinical Laboratory Department

The Clinical Laboratory section of SNPHL performs a full range of testing for a wide variety of infectious Diseases. Works with the Southern Nevada Health District (SNHD) Clinical Services Division, the Office of Disease Surveillance (ODS) and other community partners. By analyzing clinical samples, this department assists in activities pertaining to Southern Nevada’s surveillance, disease management and delivery of clinical testing services. The following services are offered routinely:

- Syphilis testing performed following the reverse CDC algorithm with RPR testing with TP-PA confirmation
- Hepatitis testing, including Hepatitis A, B and C
- QuantiFERON testing for latent TB
- HIV antigen/antibody, confirmation and viral load
- NAAT testing for *Chlamydia trachomatis*, *Neisseria gonorrhea*, SARS-CoV-2, *Mycoplasma genitalium*, *Trichomonas vaginalis*
- Hematology, Chemistry and Urinalysis

Microbiology Department

The Microbiology section of SNPHL uses the latest methods the latest methods to isolate and characterize Pathogens. Works with SNHD ODS, SNHD Environmental Health (EH) Division, government agencies and Hospital sentinel laboratories. They analyze clinical, environmental samples and participate in the core activities of Southern Nevada surveillance, quality assessment, assurance and safety. Some of the services offered in Microbiology Department are:

- Culture of stools for fecal pathogens and confirmation and typing of *Shiga-Toxin-producing coli*, *Salmonella enterica*, and *Shigella species* from various sources
- Culture of clinical specimens for uncommon pathogens
- Foodborne outbreak surveillance from clinical bacterial pathogens under PulseNet
- Confirmation of vancomycin resistant or intermediate *Staphylococcus aureus* (VRSA/VISA)

Virology Department

The Virology section has a range of polymerase chain reaction (PCR) tests for a variety of infectious disease. These tests use real-time PCR assay that target the DNA or RNA of a variety of bacteria such as Brucella and viruses such as influenza. Some of the services offered in the Virology Department includes:

- Surveillance for respiratory pathogens, including COVID-19 PCR testing
- Gastrointestinal pathogens identification
- Surveillance of vaccine preventable diseases
- Surveillance of vector-borne diseases

Molecular Detection Department

The Molecular Detection section integrates the latest next-generation genomic sequencing technologies with Bioinformatics for detecting and tracking outbreaks. Some of the services offered in the Molecular Detection Department includes:

- Surveillance of foodborne outbreaks
- Surveillance of SARS-CoV-2 lineages
- Bacterial and Viral typing through Whole Genome Sequencing

ORDERING SUPPLIES

The laboratory provides some supplies to clients collecting samples to be analyzed at the Southern Nevada Public Health Laboratory. Supplies include:

1. Laboratory Test Requisition
2. Biohazard bags with absorbent (can be ordered via supply warehouse)
3. Other- contact laboratory for other supplies

REQUISITIONS

The requisition serves as a primary information source from the client or physician to the laboratory providing important information regarding the patient and the specimen as well as the ordering facility. Contact SNPHL for the appropriate requisition.

It is imperative that the requisition is completed with as much information as possible to expedite testing and reporting of patient results.

General Information

The date of specimen collection is required on the requisition form.

The time of specimen collection is required on the requisition form.

Patient Information

The minimum required patient information must include:

- Full legal name (first and last, include middle initial if known)
- Unique patient identifier (if available)
- Date of birth
- Gender

- Unique sample identifier, if available (for example: HIV bubble number or sample accession number)

Facility Information

Must include:

- Facility Name
- Street Address
- City, State and Zip code
- Facility Phone number
- Facility Fax number

Test(s) Requested

Must include:

- Specimen Type (Code)
- Specimen Source, if applicable
- Test(s) Requested

When assistance is requested for organism identification or confirmation, information should be provided regarding organism characteristics and specific test methodologies, including CIDT manufacturers.

Test Requisitions also available on SNHD Website

<https://www.southernnevadahealthdistrict.org/programs/southern-nevada-public-health-laboratory/diagnostic-and-clinical-testing-copy/>

Electronic Requisitions

Some external and internal clients may have access to request testing via an Application or online web-portal in lieu of the standard test requisition form. Requests made for testing in this manner follow the same criteria as for a “paper” or offline requisition. All elements of an electronic request must be present and accessible in the system, and failure to provide the required information can result in cancellation of the requested test by SNPHL staff.

Guidelines for use of the electronic application can be found in Appendix J.

SPECIMEN COLLECTION

The accuracy of any test procedure is dependent on the quality of the specimen. The quality of the specimen is dependent on how and when it was collected, the care given to its preservation, and how soon it reaches the laboratory.

The following information should serve as a guideline when ordering laboratory tests, preparing patients, collecting patient samples and transporting specimens to the laboratory. The Test Directory provides a complete list of tests offered by the laboratory including specific collection instructions.

The following recommendations are to be used as guidelines for collecting reliable specimens:

Before specimen collection:

- Review the specimen requirements for the test in the SNPHL Test Directory
- Note type of specimen to be collected and required volume or amount
- Identify specific collection materials

- Note any special instructions
- Check storage and handling requirements
- Prepare patient in advance with appropriate collection instructions and any other information such as the timing of collection, special diet, need for medical history, etc.

SPECIMEN LABELING

Proper identification of the patient and the specimen(s) collected is extremely critical. If possible, verbally verify the patient's full name before collecting the specimen. Clearly label each specimen with the patient's full name, date of birth, unique identification number as well as the date of collection. If specimen is for culture, include the source on the label. The name or identification number on the lab requisition form must exactly match the patient's name or identification number on the specimen(s) submitted. Verify that the lab requisition matches the specimen(s) and has been completed with all the required information.

BLOOD SPECIMEN COLLECTION

There are two types of collection tubes which may be used for the collection of blood. Those which contain anticoagulants and preservatives and those who do not. Check the preferred specimen requirement in the [Test Directory](#) to determine what type of collection tube is considered optimal for the test that is requested and the required specimen volume. Contact the laboratory if you have any questions on the volume requirement. To ensure accurate test results, follow the "New Order of Draw" (based on CLSI standard H3-A5, revised 2003 – see appendix). Draws conducted in this order prevent additive carryover and erroneous results. Allow all tubes to fill completely. Attempts to force more blood into the tube by exerting pressure will result in damage to the red cells (hemolysis). Gently invert each tube containing a preservative as soon as it is drawn, about five times, to ensure adequate mixing of blood with the anticoagulant. Verify the tube has been clearly labeled with the patient's name or identification number and date.

Hemolysis occurs when the red cells rupture, and hemoglobin and other intracellular components spill into the serum or plasma. Hemolysis can be caused by rough handling of a blood specimen, dilution, exposure to contaminants, extremes in temperature or pathologic conditions. In general, grossly or moderately hemolyzed blood specimens may not be acceptable for testing.

Requiring patients to fast for 12-14 hours before specimen collection can only control lipemia caused by dietary-induced high lipid levels. For morning specimen collection, the laboratory recommends that the patient is required to fast the previous evening from 6 PM until the next day after specimens are obtained.

Vacuum Tubes or capillary blood collectors (for example Microtainers) containing No Anticoagulants/Preservatives: specific for the collection of serum

1. Serum tube without gel (Red-stopper) – contains no anticoagulant or preservative. Whole blood will clot within 30 minutes after collection. Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer and transferred to a labeled plastic transport tube.
2. Serum tube with gel (Red/gray, red, speckled, yellow stopper) Also referred to as Serum Separator Tube or SST – contains clot activator and gel for separating serum from cells, but not an anticoagulant. Invert gently five times to mix the clot activator and blood. Whole blood will clot within 30 minutes after collection. Serum may then be separated by centrifugation for 15 minutes at

the speed recommended by the manufacturer. Inspect the barrier gel to ensure that it has sealed the serum from the packed cells. It is not necessary to transfer the serum at this point unless a frozen serum specimen is required. If a frozen serum specimen is required – transfer serum to labeled plastic transport tube. DO NOT FREEZE SERUM SEPARATOR TUBES.

Vacuum Tubes or capillary blood collectors containing Anticoagulants/Preservatives: specific for the collection of **plasma**

1. K₃EDTA tubes (Lavender-stopper) Use for whole blood or plasma. To remove plasma, centrifuge the specimen for 15 minutes at the speed recommended by the manufacturer and aspirate plasma a quarter of an inch above the cell layer. Transfer plasma to a labeled plastic transport tube.
2. Sodium or lithium heparin tubes (Green-stopper). Use for whole blood or plasma.
3. Coagulation tube (Blue-stopper). Use for whole blood or plasma.
4. Oxalate/fluoride tubes (gray-stopper) Use for whole blood or plasma
5. Special specimen collection tube sets (QuantiFERON TB Gold)

CULTURE SPECIMEN COLLECTION

1. General Specimen Collection guidelines:
 - a. Collect specimens using sterile technique.
 - b. Select the correct anatomic site from which to obtain the specimen and collect the specimen by the proper technique and with the proper supplies
 - c. Collect adequate volumes
 - d. Place the specimen in a container designed to promote the survival of suspected organisms and to eliminate leakage and potential safety hazards
 - e. Label each specimen container with the patient's full name or identification number, source and date of collection
2. Stool Collection guidelines (see Appendix D).
3. Nasopharyngeal Swab Collection guidelines (see Appendix E)
4. Nasal Swab Collection guidelines (see Appendix F)

OUTBREAK INVESTIGATION OR EMERGING DISEASE SPECIMEN COLLECTION

Specimens to be collected for possible outbreak investigation require special handling. Outbreak investigation testing is performed only as requested by the Southern Nevada Health District Office of Epidemiology and Disease Surveillance. Contact SNPHL for appropriate collection kits and forms.

REPORTABLE DISEASE ISOLATE COLLECTION

Reportable disease isolates should be submitted on appropriate tube medium or agar plate. See Appendix I for additional information.

EPIDEMIOLOGY SURVEILLANCE SPECIMEN COLLECTION

Specimens to be collected for epidemiology surveillance require special handling. Surveillance testing is performed only as requested by the Southern Nevada Health District Office of Epidemiology and Disease Surveillance. Contact laboratory for appropriate collection kits and forms.

SPECIMEN PREPARATION FOR TRANSPORT

Refer to the [Test Directory](#) for information regarding shipping specifications for each test requested. To preserve specimen integrity, shipping conditions must be adhered to. Proper transport systems and prompt delivery of specimens to the laboratory are critical for obtaining useful laboratory test results. The following information will serve as a guideline when preparing clinical specimens for transport

Specimens may either be picked up by a laboratory courier or delivered to the laboratory by the client.

1. When specimens are to be picked up by a laboratory courier, the client will keep specimens at the appropriate temperature (Ambient specimen at room temperature, refrigerated specimen should remain in a refrigerator until courier arrives and Frozen samples are to be kept in a freezer) prior to transport.
2. Specimens that are designated as Infectious Substances Category A (positive Mycobacterium culture or positive Shiga toxin producing Escherichia coli (STEC) broth) must be packaged to meet appropriate federal guidelines. Clients sending Category A samples by SNPHL courier must contact the SNPHL laboratory manager to arrange for appropriate packaging materials.
3. Culture specimens that are designated as suspect Select Agents (see Appendix I for list of agents) must be packaged as Category A Infectious samples. Clients sending suspect Select Agents to SNPHL by courier must contact the SNPHL laboratory manager to arrange for appropriate packaging materials and Chain of Custody forms.
4. When specimens are to be delivered to the laboratory by the client, please adhere to the following:
 - Specimens which require refrigeration must be transported appropriately in a cooler with ice packs.
 - Specimens which require freezing must be transported appropriately in a cooler with dry ice.
 - Specimens which require ambient (room temperature) transport should be placed in a cooler so that the temperature does not change during transport.

A. Client Transportation Responsibilities

Prior to transport, the client must ensure that the following steps have been performed:

1. Verify that all specimen samples have been appropriately labeled with the patient's full name and identification number, collection date, and source (if sample is for culture).
2. Complete the laboratory requisition with as much information as possible. Carefully check that all tests being requested have been selected by marking the corresponding box. Only one requisition should be submitted for each patient, marking all tests requested. If sending suspect Select Agents for confirmation, complete Chain of Custody form.
3. Wrap parafilm or seal the edges of culture plates or tube media to prevent leakage
4. Place specimens in a biohazard bag with absorbent and carefully seal the closable zip bag.
5. Place the requisition in the **outside** pocket of the biohazard bag. If multiple specimens have been collected for one patient and the shipping requirements are the same, place all specimens in one biohazard bag with absorbent and the requisition in the outside pocket.
6. If multiple specimens have been collected for one patient that have multiple shipping requirements, i.e. frozen and refrigerated, please contact the laboratory for instructions.
7. Store all specimens in an appropriate container, either room temperature, refrigerated or frozen.

8. If a sample log is used at the site, ensure that all samples for pickup are on the sample log.

B. Courier Transportation Responsibilities

1. Courier will check each specimen form to ensure all required information is present
2. If the sample log is used at the site, the courier will sign off as appropriate
3. Courier will not touch any specimen bag or container that appears soiled. Facility staff will be asked to place the specimen in another bag so it can be safely transported.
4. Courier staff will not accept any unsealed bags or leaking containers for transport. Facility staff will be asked to seal bags or containers.
5. If Chain of Custody form is required, the courier will ensure that it is completed correctly and make a copy of the form for the facility.
6. Missed or delayed pickups – every attempt will be made to pick up the sample as scheduled. If pickup must be rescheduled, the facility will be notified to ensure that arrangements can be made to store the sample, so that specimen integrity is maintained.

SAFETY

To protect the safety of the healthcare worker collecting the sample, the transport couriers and laboratory personnel, the following precautions must be followed when collecting specimens:

1. During specimen collection wear appropriate Personal Protective Equipment (PPE) which may include gloves, laboratory coat or mask and goggles.
2. Use leak-proof containers and plastic zip style transport bags that have a separate outside compartment for the test requisition form. The transport bags **MUST** have absorbent material inside the bag.
3. Make sure screw-cap lids are fastened evenly and securely. Ensure that no label material is caught in the threads of the lid.
4. Do not transport leaking containers to the laboratory because test results will be compromised, and it is a hazard to couriers and laboratory personnel.
5. To protect the safety of others, ensure that the outside of the specimen container or the laboratory requisition form is not contaminated by the sample.

LEAKS AND SPILLS

To be safe, couriers will treat every spill as if it were infectious. If a specimen container at a pickup site appears to be leaking, couriers will not touch the specimen bag. Courier will bring it to the attention of site personnel for repackaging.

If a leak or spill occurs in the laboratory or facility, the courier will immediately bring to the attention of laboratory or facility staff for cleanup.

If a leak or spill occurs away from the laboratory or facility, the courier will follow SNPHL biohazardous spill cleanup procedure. A spill response form **MUST** be completed for all spills and returned to laboratory manager or safety officer. All courier vehicles include the Universal Precaution Compliance Kit (instructions located on the bag) which is to be used for biohazardous spill cleanup.

A. Using the Universal Precaution Compliance Kit

- Make sure no one touches or walks through the spill.
- Always wear gloves when cleaning up a spill.
- Do not pick up broken glass or sharps with hands – use scoop or tongs.
- Use Red Z in spill cleanup kit to contain the sample. Allow spill to solidify to a dry gel before handling. Note: Red Z will quickly solidify blood and body fluids. It will assist in the safer handling, transportation, and disposal of aqueous fluids.
- Remove gelled material with the scraper and carefully place in Red Bag.
- Clean up remaining solids and disinfect the affected area with a liquid disinfectant or germicidal cloth in the kit. Read disinfectant instructions before use.
- Place all contaminated materials, including gloves in the red bag.
- Seal bag, label and return to SNPHL for disposal in a biohazardous waste container. Notify laboratory personnel if broken glass is present. If broken glass is present, dispose of in sharps container.
- Promptly wash hands thoroughly with soap and water or use antimicrobial towelette.

B. Alternate clean up method

If for some reason it is not practical to use the Universal Precautions Clean up kit, follow this procedure:

1. Put on gloves
2. Mix 10 parts of water with 1-part bleach or use Dispatch bleach product.
3. Pour the diluted bleach or Dispatch on the spill and let sit for 15 minutes.
4. Do not pick up broken glass or sharps with hands – use scoop or tongs.
5. Blot up the spill with paper towels and wipe the surface dry.
6. Place gloves and towels in biohazard bag if available
7. Wash hands thoroughly with soap and water or use alcohol gel
8. Transport all waste to SNPHL for disposal in a biohazardous waste container. Notify laboratory personnel if broken glass is present. If broken glass is present, dispose of in sharps container.

SAMPLE REJECTION CRITERIA

The goal of the laboratory is to provide quality analysis of clinical specimens, which will assist physicians in managing patient healthcare by making correct diagnostic and therapeutic decisions based on the outcome of laboratory tests as well as provide accurate results for epidemiological surveillance and outbreak investigation. Therefore, it is essential that the laboratory provides accurate test results. The accuracy of test results is dependent on specimen integrity. It is the responsibility of all personnel involved in patient preparation, specimen collection, specimen handling, and specimen analysis to adhere to recommended protocols established to maintain specimen integrity.

The following is a general list of errors, which apply to all clinical specimens and may result in the rejection of the specimen:

1. Unlabeled specimen
2. Mislabelled specimen
3. QNS – quantity of specimen not sufficient for testing
4. Specimen leaked or broken in transit
5. Inaccurate and incomplete patient instructions prior to collection
6. Incorrectly preserved specimens
7. Utilization of expired transport media
8. Inappropriate specimen transport

9. Delayed specimen transport
10. No specimen received
11. Wrong collection kit utilized

Whenever a sample or specimen is rejected, the sample will be held until the client is notified. The client will be contacted by telephone on the day the sample is rejected. A patient report will be sent to the client indicating testing was not performed and providing a reason. Sample rejection data will be evaluated, and protocols modified or developed to reduce sample problems in the future.

REPORTING

Reports will be generated by the laboratory and automatically faxed to the ordering client when the requested testing is completed by the LIMS. Reportable critical results will be telephoned to the ordering client on the day the testing is completed. Reportable abnormal results will be sent to the appropriate Health Authority. Hard copy reports are available for most tests upon request.

QUALITY ASSESSMENT PROGRAM (QAP)

The Southern Nevada Public Health Laboratory participates in a comprehensive quality assessment program monitoring all aspects of the analytical process. Clients are provided with collection instructions and advised by the laboratory if those instructions are not followed. All concerns or incidents presented by clients to SNPHL will be analyzed and addressed by the SNPHL laboratory supervisor and laboratory director.

Testing personnel participates in competency testing utilizing unknown samples, blind sample testing and several proficiency testing programs from a variety of accredited sources.

CONSULTATION AND TRAINING

Laboratory personnel is available to provide consultative services to health agencies, private physicians, and laboratories.

CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory
APPENDIX A

TEST DIRECTORY

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Southern Nevada Public Health Laboratory
TEST MENU

Activated Alanine Aminotransferase (ALT)

Method	Abbott Alinity c-series IFCC Enzymatic method.
CPT Code	84460
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: 0 - 55 U/L
Reported	System generated fax; Electronic transmission
Limitations	Bilirubin at levels greater than 31 mg/dL may cause interference with the A-ALT assay.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Activated Aspartate Aminotransferase (AST)

Method	Abbott Alinity c-series Enzymatic (NADH [with P-5'-P]) method.
CPT Code	84450
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: 5 - 34 U/L
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Albumin

Method	Abbott Alinity c-series Albumin BCP2- Colorimetric (Bromocresol Purple)
CPT Code	82040
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	
Results	Reference Range: Adults (≥ 16 years) 3.1 - 4.5 g/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Alkaline Phosphatase (ALP)

Method	Abbott Alinity c-series Para-nitrophenyl Phosphate
CPT Code	84075
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult Male: (> 20 years) 40 to 150 U/L Adult Female: (>15 years) 40 to 150 U/L
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Bacillus anthracis by Real-time PCR Assay

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved method
CPT Code	87801 Infectious agent detection by Nucleic Acid (RNA or DNA), Multiple Organisms 87798 Bacillus anthracis PCR
Specimen	Human respiratory samples, whole blood, serum, plasma, swabs from lesions, CSF, pleural fluid and bacterial culture isolates.
Collect in	Sterile transport container or evacuated sample collection tube
Labeling	Label with patient's full name, date of birth, collection time and date
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24 hours following receipt in our laboratory
Results	Bacillus anthracis DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported, or handled. False negative results may occur if inadequate numbers of organisms are present in the sample
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Basic Metabolic Panel (BMP)

Method	Abbott Alinity c-series various methods. Refer to individual assays in the Client Manual. Assays include BUN/Creatinine Ratio (calculated), Calcium, Carbon Dioxide, Chloride, Creatinine with GFR Estimated, Glucose, Potassium, Sodium, Urea Nitrogen (BUN)
CPT Code	80048
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days or 72 hours.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Grossly Lipemic specimen - Grossly Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report or individual assays in the Client Manual.
Reported	System generated fax; Electronic transmission
Limitations	Refer to individual assays in the Client Manual.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Bilirubin, Direct

Method	Abbott Alinity c-series Diazo Reaction method.
CPT Code	82248
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days. Protect from light.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: 0.0 to 0.5 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Bilirubin, Total

Method	Abbott Alinity c-series Diazonium salt method.
CPT Code	82247
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days. Protect from light.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: 0.3 to 1.2 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Bordetella pertussis (Whooping cough), Culture

Method	Culture
CPT Code	87060
Specimen	Nasopharyngeal swab or Nasal wash Other acceptable specimens Sputum or Bronchial aspirate
Collect in	Flexible Dacron or Rayon Nasopharyngeal swab placed in Regan Lowe media or Casamino Acid Solution (available from the laboratory)
Labeling	Label with patient's full name and ID number and date of subculture
Transport	Transport swabs in Casamino Acid within 2 hours of collection swabs in Regan Lowe media within 24 hours. Store and ship at room temperature. DO NOT REFRIGERATE
Sample Rejection	Cough plates or throat swabs are unacceptable Refrigerated specimens Mislabeled/Unlabeled specimen Swabs not in appropriate transport media
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	9-11 days
Results	Bordetella pertussis isolated or not isolated
Reported	System generated fax; Electronic transmission
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

Brucella species by qRT-PCR Assay

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved method
CPT Code	87801 Infectious agent detection by Nucleic Acid (RNA or DNA), Multiple Organisms
Specimen	Human respiratory samples, whole blood, serum, plasma, swabs from lesions, CSF, pleural fluid and bacterial culture isolates.
Collect in	Sterile transport container or evacuated sample collection tube
Labeling	Label with patient's full name, date of birth, collection time and date
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	<ul style="list-style-type: none"> - Misabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24 hours following receipt in our laboratory
Results	Bacillus anthracis DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported, or handled. False negative results may occur if inadequate numbers of organisms are present in the sample
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Burkholderia mallei or pseudomallei by qRT-PCR Assay

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved method
CPT Code	87801 Infectious agent detection by Nucleic Acid (RNA or DNA), Multiple Organisms 83891 Extraction of highly purified nucleic acid
Specimen	Whole blood, serum, and bacterial culture isolates.
Collect in	Evacuated sample collection tube, culture plates or tubes
Labeling	Label with patient's full name, date of birth, collection time and date
Special Notes	Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24 hours following receipt in our laboratory
Results	Burkholderia mallei or pseudomallei DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported, or handled. False negative results may occur if inadequate numbers of organisms are present in the sample
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Calcium

Method	Abbott Alinity c-series Arsenazo III method.
CPT Code	82310
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult 8.4 to 10.2 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Candida auris Surveillance, Qualitative, Real-Time PCR, Axilla/Groin

Method	Real-Time Polymerase Chain Reaction
CPT Code	87481 Infectious agent detection by nucleic acid (DNA or RNA)
Specimen	Groin/axilla swab
Collect in	1 composite groin/axilla swab collected in liquid Amies elution swab (ESwab™) Collection kits may be provided by contacting SNPHL at 702-759-1020. Swab both the left and right axilla (armpit) skin surface targeting the crease in the skin where the arm meets the body approximately 3-5 times. With the same swab used on the axilla, swab the left and right groin skin surface, targeting the skin where the thigh meets the trunk approximately 3-5 times.
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	Indicate specimen source on requisition form. Record patient symptomatology on request form.
Transport	Store and transport refrigerated (2-8°C) within 96 hours or freeze (-20 ° C) Room Temperature UNACCEPTABLE
Sample Rejection	<ul style="list-style-type: none"> - Specimens > 96 hours old and not frozen - No swab present or swab without media - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Candida auris detected or not detected
Reported	System generated fax; Electronic transmission
Note	Negative results do not preclude the possibility of Candida auris infection in the patient. Positive results do not preclude the presence of other pathogens. Do not use medium that may contain Guanidium thiocyanate or any guanidine containing material.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Candida auris Susceptibility

Method	Broth Microdilution and Etest
CPT Code	
Specimen	<i>Candida auris</i> isolates submitted by local providers. <i>C. auris</i> suspected of causing clinical illness.
Collect in	
Labeling	Label transport medium (slant or plate) with patient's first and last name, date and time of collection
Processing	Indicate specimen source on requisition form. Record patient symptomatology on request form.
Transport	Sabouraud Dextrose Agar Slant/Plate
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen or Requisition form/isolate discrepancies - Contaminated culture medium - Broken transport medium - Leaking specimen - Improperly sealed slant or plate
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	1-2 weeks
Results	Minimum Inhibitory Concentration, no interpretation
Reported	System generated fax; Electronic transmission
Note	
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

Carbon Dioxide (CO₂)

Method	Abbott Alinity c-series PEP Carboxylase method.
CPT Code	82374
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days. Keep tube tightly capped for storage.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: 22 to 29 mmol/L
Reported	System generated fax; Electronic transmission
Limitations	CO ₂ value decreases once the specimen has been exposed to ambient air.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

C. trachomatis (CT)/ N. gonorrhoeae (GC) Aptima 2 Combo

Method	Qualitative Transcription-Mediated Amplification (TMA)
CPT Code	87491 C. trachomatis 87591 N. gonorrhoeae
Specimen	Swab: Vaginal, rectal, throat collected with APTIMA Vaginal Swab Specimen Collection kit (available from SNPHL); OR Swab: Urethral collected with APTIMA Unisex Swab Specimen Collection kit (available from SNPHL); OR First catch urine (male or female): patient should not have urinated for at least 1 hour prior to specimen collection.
Collect in	Swab: place pink (vaginal) or blue (unisex) swab in APTIMA swab specimen transport tube, break shaft off at the scoreline, then recap tube. Urine: Transfer 2 ml urine to APTIMA Urine Specimen Transport Tube. The liquid level must be between fill lines on the tube.
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube. SPECIMEN SOURCE IS REQUIRED.
Processing	Do not open transport tubes. Specimens are placed directly on an instrument or stored in the refrigerator until next business day.
Transport	Swab in transport tube: stable at room temperature for two months; refrigerated for two months; frozen for one year Urine in transport tube: stable at room temperature for one month; refrigerated for one month; frozen for one year.
Sample Rejection	<ul style="list-style-type: none"> - More than 1 or no pink or blue swab in the APTIMA swab transport tube - The final volume of urine is NOT within the black fill lines of the Urine transport tube - Specimen quantity not sufficient for testing (QNS) - Mislabeled/Unlabeled Specimens
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	CT Negative, Positive, or Indeterminate GC Negative, Positive, or Indeterminate
Reported	System generated fax; Electronic transmission
Note	Aptima 2 Combo Assay is not approved by the FDA for extragenital and female urine sources. SNPHL has verified the performance characteristics of the test method with these sources.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Cholesterol

Method	Abbott Alinity c-series Enzymatic method.
CPT Code	82465
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: < 200 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Comprehensive Metabolic Panel (CMP)

Method	Abbott Alinity c-series various methods. Refer to individual assays in the Client Manual. Assays include Albumin, Albumin/Globulin Ratio (calculated), Alkaline Phosphatase, ALT, AST, BUN/Creatinine Ratio (calculated), Calcium, Carbon Dioxide, Chloride, Creatinine with GFR Estimated, Globulin (calculated), Glucose, Potassium, Sodium, Total Bilirubin, Total Protein, Urea Nitrogen
CPT Code	80053
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days or 72 hours.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Grossly Lipemic specimen - Grossly Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report or individual assays in the Client Manual.
Reported	System generated fax; Electronic transmission
Limitations	Refer to individual assays in the Client Manual.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Complete Blood Count (CBC)

Method	Sysmex® XN-2000 multi-parameter automated hematology analyzer - the hydrodynamic focusing (DC Detection), flow cytometry method (semiconductor laser), and SLS-hemoglobin method.																																																																										
CPT Code	85027																																																																										
Specimen	Whole blood – Required Volume: 1mL RBT Micro tube – 250uL Minimum specimen volume: 1mL																																																																										
Collect in	EDTA-2K or EDTA-3K anticoagulant tube																																																																										
Labeling	Label with patient's full name, date of birth, collection date, and time.																																																																										
Processing	Processing Serum: Allow refrigerated samples to come to room temperature and mix well before analysis. Do not place CBC and Diff samples on a mechanical rocker. Constant rocking may alter white cell membranes, resulting in false interpretive messages.																																																																										
Transport	Store and transport refrigerated (2-8°C) within 48 hours Room temperature stability is 24 hours. Keep tube tightly capped for storage.																																																																										
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Specimen contains fibrin or clots. - Excessive platelet clumping - Substandard mixing or collection 																																																																										
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Results	<p>Reference Range:</p> <p>Adult:</p> <table border="1"> <thead> <tr> <th>Parameter</th><th>Males (21-99)</th><th>Females (21-99)</th><th>Units</th></tr> </thead> <tbody> <tr> <td>WBC</td><td>3.18-12.74</td><td>2.74-10.9</td><td>x103/mcL</td></tr> <tr> <td>RBC</td><td>4.08-5.80</td><td>3.62-5.76</td><td>X106/mcL</td></tr> <tr> <td>HGB</td><td>12.3-17.2</td><td>10.7-16.7</td><td>gm/dL</td></tr> <tr> <td>HCT</td><td>37-52</td><td>33-50</td><td>%</td></tr> <tr> <td>MCV</td><td>83.0-97.0</td><td>79.4-99.5</td><td>fL</td></tr> <tr> <td>MCH</td><td>27.3-32.4</td><td>24.8-33.8</td><td>Pg</td></tr> <tr> <td>MCHC</td><td>31.3-35.1</td><td>30.6-34.9</td><td>gm/dL</td></tr> <tr> <td>RDW-CV</td><td>11.4-14.7</td><td>11.0-15.1</td><td>%</td></tr> <tr> <td>RDW-SD</td><td>35.3-50.7</td><td>37.6-47.5</td><td>fL</td></tr> <tr> <td>IPF</td><td>1.23-8.70</td><td>Same as Males</td><td>%</td></tr> <tr> <td>PLT</td><td>140-400</td><td>Same as Males</td><td>x103/mcL</td></tr> <tr> <td>MPV</td><td>7.2-12.6</td><td>Same as Males</td><td>fL</td></tr> <tr> <td>NRBC%</td><td>0.0-0.2</td><td>Same as Males</td><td>/100WBC</td></tr> <tr> <td>NRBC#</td><td>0.0-0.01</td><td>Same as Males</td><td>x103/mcL</td></tr> <tr> <td>RETIC %</td><td>0.51-1.81</td><td>0.50-1.70</td><td>%</td></tr> <tr> <td>RETIC ABS</td><td>2.60-9.50</td><td>1.64-7.76</td><td>104/mcL</td></tr> <tr> <td>IRF</td><td>0.0-3.4</td><td>0.0-3.5</td><td>%</td></tr> </tbody> </table>			Parameter	Males (21-99)	Females (21-99)	Units	WBC	3.18-12.74	2.74-10.9	x103/mcL	RBC	4.08-5.80	3.62-5.76	X106/mcL	HGB	12.3-17.2	10.7-16.7	gm/dL	HCT	37-52	33-50	%	MCV	83.0-97.0	79.4-99.5	fL	MCH	27.3-32.4	24.8-33.8	Pg	MCHC	31.3-35.1	30.6-34.9	gm/dL	RDW-CV	11.4-14.7	11.0-15.1	%	RDW-SD	35.3-50.7	37.6-47.5	fL	IPF	1.23-8.70	Same as Males	%	PLT	140-400	Same as Males	x103/mcL	MPV	7.2-12.6	Same as Males	fL	NRBC%	0.0-0.2	Same as Males	/100WBC	NRBC#	0.0-0.01	Same as Males	x103/mcL	RETIC %	0.51-1.81	0.50-1.70	%	RETIC ABS	2.60-9.50	1.64-7.76	104/mcL	IRF	0.0-3.4	0.0-3.5	%
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Reported	System generated fax; Electronic transmission																																																																										
Limitations	Specimens must be free of clots and fibrin strands. Severely hemolyzed samples (<i>in vitro</i>) falsely decrease RBC and hematocrit.																																																																										
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department																																																																										

Southern Nevada Public Health Laboratory
TEST MENU

Complete Blood Count with Automated Differential (CBC w/ Diff)

Method	Sysmex® XN-2000 multi-parameter automated hematology analyzer - the hydrodynamic focusing (DC Detection), flow cytometry method (semiconductor laser), and SLS-hemoglobin method.							
CPT Code	85025							
Specimen	Whole blood – Required Volume: 1mL RBT Micro tube – 250uL Minimum specimen volume: 1mL							
Collect in	EDTA-2K or EDTA-3K anticoagulant tube							
Labeling	Label with patient’s full name, date of birth, collection date, and time.							
Processing	Processing Serum: Allow refrigerated samples to come to room temperature and mix well before analysis. Do not place CBC and Diff samples on a mechanical rocker. Constant rocking may alter white cell membranes, resulting in false interpretive messages.							
Transport	Store and transport refrigerated (2-8°C) within 48 hours Room temperature stability is 24 hours. Keep tube tightly capped for storage.							
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Specimen contains fibrin or clots. - Excessive platelet clumping - Substandard mixing or collection							
Requisition	SNPHL Request Forms							
Turn Around Time	24-48 Hours							
Results	Reference Range: Adult:							
	Parameter	Males (21-99)	Females (21-99)	Units	Parameter	Males (21-99)	Females (21-99)	Units
	WBC	3.18-12.74	2.74-10.9	x103/mcL	NEUT#	0.9-8.7	1.3-7.3	103/mcL
	RBC	4.08-5.80	3.62-5.76	X106/mcL	LYMPH#	0.7-3.8	0.8-3.6	103/mcL
	HGB	12.3-17.2	10.7-16.7	gm/dL	MONO#	0.1-1.1	0.2-0.8	103/mcL
	HCT	37-52	33-50	%	EO#	0.0-0.4	0.0-0.3	103/mcL
	MCV	83.0-97.0	79.4-99.5	fL	BASO#	0.0-0.1	Same as Males	103/mcL
	MCH	27.3-32.4	24.8-33.8	Pg	IG#(>10Y O)	0.00-0.07	Same as Males	103/mcL
	MCHC	31.3-35.1	30.6-34.9	gm/dL	IG#(<9YO)	0.00-0.04	Same as Males	103/mcL
	RDW-CV	11.4-14.7	11.0-15.1	%	IG%(>10 YO)	0.0-0.08	Same as Males	%
	RDW-SD	35.3-50.7	37.6-47.5	fL	IG%(<9Y O)	0.0-0.3	Same as Males	%
	IPF	1.23-8.70	Same as Males	%	BANDS%	0-9	Same as Males	%
	PLT	140-400	Same as Males	x103/mcL				
	MPV	7.2-12.6	Same as Males	fL				
	NRBC%	0.0-0.2	Same as Males	/100WBC				
	NRBC#	0.0-0.01	Same as Males	x103/mcL				
	RETIC %	0.51-1.81	0.50-1.70	%				
	RETIC ABS	2.60-9.50	1.64-7.76	104/mcL				
	IRF	0.0-3.4	0.0-3.5	%				
	Reported	System generated fax; Electronic transmission						
Limitations	Specimens must be free of clots and fibrin strands. Severely hemolyzed samples (<i>in vitro</i>) falsely decrease RBC and hematocrit.							
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department							

Southern Nevada Public Health Laboratory
TEST MENU

Creatinine, Enzymatic

Method	Abbott Alinity c-series Enzymatic method.
CPT Code	82565
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Male: 0.73 to 1.18 mg/dl Female: 0.55 to 1.02 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	<ul style="list-style-type: none"> • N-acetyl-L-cysteine at therapeutically achieved concentrations may lead to falsely low results in serum/plasma samples. • Alpha-methyldopa may cause falsely low results in serum/plasma samples.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

C-REACTIVE PROTEIN (CRP)

Method	Abbott Alinity c-series Turbidimetric/Immunoturbidimetric method.
CPT Code	86141 (hs-CRP)
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 2 months. Protect from light.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: ≤ 0.5 mg/dl
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Francisella tularensis by qRT-PCR Assay

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved method
CPT Code	87801 Infectious agent detection by Nucleic Acid (RNA or DNA), Multiple Organisms 83891 Extraction of highly purified nucleic acid
Specimen	Whole blood and bacterial culture isolates.
Collect in	Evacuated sample collection tube (Purple top- EDTA)
Labeling	Label with patient's full name, date of birth, collection time and date
Special Notes	Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24 hours following receipt in our laboratory
Results	Francisella tularensis DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported, or handled. False negative results may occur if inadequate numbers of organisms are present in the sample.
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Gastrointestinal Panel-BioFire

Method	Multiplexed assay of nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Non-FDA approved. Method verified by SNPHL
CPT Code	87801 Infectious agent detection by Nucleic Acid (RNA or DNA), Multiple Organisms
Specimen	Fresh Stool, Stool preserved in Cary-Blair medium.
Collect in	Stool collection kit
Labeling	Label stool transport container with patient's full name, date of birth, collection time and date
Special Notes	Indicate specimen source on requisition form
Transport	Store and transport freshly collected stool refrigerated (2-8°C) within 24 hours or freeze (-20 ° C). Stool may also be placed in Cary-Blair specimen container at refrigerated (2- 8°C)
Sample Rejection	<ul style="list-style-type: none"> - Fresh specimens > 24 hours old and not frozen or in Cary-Blair medium - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Campylobacter, Clostridium difficile, Plesiomonas shigelloides. Salmonella, Shigella/Enteroinvasive E. coli, Shiga-toxin producing E.coli, Enteraggregative E.coli, Enteropathogenic E.coli, Enterotoxigenic E.coli, Yersinia enterocolitica, Vibrio, Cryptosporidium, Cyclospora cayetenesis, Entamoeba histolytica, Giardia lamblia, Astrovirus, Norovirus, Sapovirus, Adenovirus F40/F41 nucleic acid detected or not detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of gastrointestinal infection in the patient. A detected result does not preclude the presence of other gastrointestinal pathogens.
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Glucose

Method	Abbott Alinity c-series Enzymatic (Hexokinase/G-6-PDH) method.
CPT Code	82947
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Fasting Adult: 74 to 100 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	The serum glucose assay is susceptible to interference effects from unconjugated bilirubin at > 30 mg/dL.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hemoglobin & Hematocrit (H&H)

Method	Sysmex® XN-2000 multi-parameter automated hematology analyzer - the hydrodynamic focusing (DC Detection), flow cytometry method (semiconductor laser), and SLS-hemoglobin method.												
CPT Code	85014, 85018												
Specimen	Whole blood – Required Volume: 1mL RBT Micro tube – 250uL Minimum specimen volume: 1mL												
Collect in	EDTA-2K or EDTA-3K anticoagulant tube												
Labeling	Label with patient’s full name, date of birth, collection date, and time.												
Processing	Processing Serum: Allow refrigerated samples to come to room temperature and mix well before analysis. Do not place CBC and Diff samples on a mechanical rocker. Constant rocking may alter white cell membranes, resulting in false interpretive messages.												
Transport	Store and transport refrigerated (2-8°C) within 48 hours Room temperature stability is 24 hours. Keep tube tightly capped for storage.												
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Specimen contains fibrin or clots. - Excessive platelet clumping - Substandard mixing or collection												
Requisition	SNPHL Request Forms												
Turn Around Time	24-48 Hours												
Results	Reference Range: (Adult) <table><tr><td></td><td>Males (21-99)</td><td>Females (21-99)</td><td>Units</td></tr><tr><td>HGB</td><td>12.3-17.2</td><td>10.7-16.7</td><td>gm/dL</td></tr><tr><td>HCT</td><td>37-52</td><td>33-50</td><td>%</td></tr></table>		Males (21-99)	Females (21-99)	Units	HGB	12.3-17.2	10.7-16.7	gm/dL	HCT	37-52	33-50	%
	Males (21-99)	Females (21-99)	Units										
HGB	12.3-17.2	10.7-16.7	gm/dL										
HCT	37-52	33-50	%										
Reported	System generated fax; Electronic transmission												
Limitations	Specimens must be free of clots and fibrin strands. Severely hemolyzed samples (<i>in vitro</i>) falsely decrease RBC and hematocrit.												
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department												

Southern Nevada Public Health Laboratory
TEST MENU

Hemoglobin A1C

Method	Abbott Alinity c-series Enzymatic method.
CPT Code	83036
Specimen	Whole Blood – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	EDTA Lavender Tube
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-72 Hours
Results	Reference Range: < 6.5 % HbA1c
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hepatic/Liver Panel

Method	Abbott Alinity c-series various methods. Refer to individual assays in the Client Manual. Assays include Total protein, albumin, globulin (calculated), albumin/globulin ratio, total bilirubin, direct bilirubin , alkaline phosphatase (ALP), aspartate aminotransferase (AST), and alanine aminotransferase (ALT).
CPT Code	80076
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient’s full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days or 72 hours.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Grossly Lipemic specimen - Grossly Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report or individual assays in the Client Manual.
Reported	System generated fax; Electronic transmission
Limitations	Refer to individual assays in the Client Manual.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hepatitis A Antibody, Total

Method	Chemiluminescent Microparticle Immunoassay
CPT Code	80074 Organ or Disease Oriented Panels 86317 Qualitative or Semiquantitative Immunoassays
Specimen	Seum
Collect in	Serum Separator Tube (SST)
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Do not open transport tubes. Centrifuged specimens are placed directly on an instrument or stored in the refrigerator until next business day.
Transport	Serum Separator Tube (SST)
Sample Rejection	Quantity Not Sufficient for testing. <300 uL
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Non-Reactive, borderline, Reactive
Reported	System generated fax; Electronic transmission
Note	Immunocompromised patients may not react positive with this test, and present as a false negative.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hepatitis B Surface Antibody (HBsAb)

Method	Chemiluminescent Microparticle Immunoassay
CPT Code	80074 Organ or Disease Oriented Panels 86317 Qualitative or Semiquantitative Immunoassays
Specimen	Seum
Collect in	Serum Separator Tube (SST)
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Do not open transport tubes. Centrifuged specimens are placed directly on an instrument or stored in the refrigerator until next business day.
Transport	Serum Separator Tube (SST)
Sample Rejection	Quantity Not Sufficient for testing. <300 uL
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Non-Reactive, borderline, Reactive
Reported	System generated fax; Electronic transmission
Note	Immunocompromised patients may not react positive with this test, and present as a false negative.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hepatitis C Quantitation, NAAT

Method	Real-time Transcription-Mediated Amplification (TMA)
CPT Code	87522 Infectious Agent Antigen Detection
Specimen	Seum, EDTA Plasma or ACD Plasma
Collect in	Serum Separator Tube (SST), EDTA or ACD tube
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Tubes can be sent uncentrifuged but must be centrifuged within 6 hours. Separate serum or plasma from cells and freeze if not tested immediately.
Transport	Transport in original collection tube to the lab within 6 hours.
Sample Rejection	Samples less than 1200 uL will be rejected.
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Not Detected <10,000 to >10,000,000 copies/mL
Reported	System generated fax; Electronic transmission
Note	Through rare, mutations within the highly conserved regions of the viral genome covered by the primers and probes in the HCV Dx Quant assay may result in under quantification of or failure to detect the virus.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Hepatitis Panel, Acute (HCV, HBsAg, HBc IgM, HAV IgM)

Method	Chemiluminescent Microparticle Immunoassay
CPT Code	80074 Organ or Disease Oriented Panels
Specimen	Seum
Collect in	Serum Separator Tube (SST)
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Do not open transport tubes. Centrifuged specimens are placed directly on an instrument or stored in the refrigerator until next business day.
Transport	Serum Separator Tube (SST)
Sample Rejection	Quantity Not Sufficient for testing. <300 uL
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Non-Reactive, borderline, Reactive
Reported	System generated fax; Electronic transmission
Note	Immunocompromised patients may not react positive with this test, and present as a false negative.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

HDL (High Density Lipoproteins)

Method	Abbott Alinity c-series instrument using a Accelerator Selective Detergent method.
CPT Code	83718
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: >40 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

HIV Ag/Ab

Method	Multiplex Bead Immunoassay Reflex to HIV-1/HIV-2 Geenius for differentiation IF Reactive
CPT Code	87389 HIV Ag/Ab 86701-92 HIV-1 Geenius reflex 86702-92 HIV-2 Geenius reflex
Specimen	Serum Required specimen volume: 2-4 ml serum Minimum specimen volume: 1 ml serum
Collect in	<u>Serum</u> : vacutainer tube with or without gel. Plasma samples not acceptable
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	<u>Serum</u> : Allow blood to completely clot (usually within 30 minutes). Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer. Vacutainer without gel: Separate serum from cells into an appropriately labeled tube Vacutainer with gel: Does not require removing serum into a separate tube.
Transport	Serum – Store no longer than two days at room temperature or 7 days refrigerated (2-8 degrees C), including the time that samples are in transit.
Sample Rejection	-Bacterial contaminated serum -Specimen quantity not sufficient for testing (QNS) -Mislabelled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Non-Reactive Reactive
Reported	System generated fax; Electronic transmission
Note	A non-reactive test result does not preclude the possibility of exposure to or infection with HIV-1 and/or HIV-2.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

HIV-1 RNA, NAAT

Method	Quantitative Transcription Mediated Amplification
CPT Code	87536 Infectious Agent Antigen Detection
Specimen	Serum, EDTA or ACD Plasma
Collect in	One lavender top (EDTA) fully filled tube or Acid Citrate Tube
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Centrifuge sample within 24 hours and store at 2-8 degrees C for three days in the primary tube.
Transport	Transport to the laboratory as soon as possible.
Sample Rejection	-Specimen quantity not sufficient for testing (QNS) -Mislabeled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48- 72 hours following receipt in our laboratory
Results	Not Detected <30,000 to >10,000,000 copies/mL
Reported	System generated fax; Electronic transmission
Note	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Influenza A (with subtype H1,H3, and 2009 H1N1) and B (with genogroup Yamagata and Victoria)

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Nasopharyngeal swab, Nasal swab, Nasal wash
Collect in	Swab specimen should be collected only on swabs with a Dacron tip and an aluminum or plastic shaft. Swabs with calcium alginate or cotton tips and wooden shafts are unacceptable . Following collection, all specimens are placed in Viral Transport Media (VTM) M4. Indicate specimen source in requisition form
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	Indicate specimen source in requisition form
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	<ul style="list-style-type: none"> - Specimens > 72 hours old and not frozen - Samples collected with calcium alginate or cotton tips and wooden shafts - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Influenza A and Influenza B detected or not detected. Influenza A subtypes AH1, AH3, and A 2009 H1N1 will be reported if Influenza A is detected. Influenza B genogroup Yamagata or Victoria will be reported if Influenza B is detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of influenza infection in the patient. A detected result does not preclude the presence of other respiratory pathogens.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Influenza SARS-CoV-@ (Flu SC2) Multiplex RT-PCR EUA, CDC

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Emergency Use Authorization Only
CPT Code	87636 Infectious agent detection by nucleic acid (DNA or RNA); severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Coronavirus disease [COVID-19]) and influenza virus types A and B, multiplex amplified probe technique.
Specimen	Nasopharyngeal swab, Nasal swab
Collect in	Swab specimen should be collected only on swabs with a synthetic polymer head (e.g. Dacron) and plastic shaft. Swabs with calcium alginate, cotton tips, or wooden shafts are unacceptable . Following collection, all specimens must be placed in Viral Transport Media (VTM) M4 and properly stored. Collection kits containing both acceptable swabs and VTM may be provided by contacting SNPHL at 702-759-1020.
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	Indicate specimen source on requisition form. Record patient symptomatology on request form.
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	<ul style="list-style-type: none"> - Specimens > 72 hours old and not frozen - Samples collected with calcium alginate or cotton tips and wooden shafts - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Influenza A, Influenza B, and/or COVID-19 Positive or Negative
Reported	System generated fax; Electronic transmission
Note	Negative results do not preclude the possibility of respiratory virus infection in the patient. Consider testing for other respiratory viruses. Positive results do not preclude the presence of other respiratory pathogens.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Iron

Method	Abbott Alinity c-series Ferene method.
CPT Code	83540
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - heat-inactivated specimens - pooled specimens - grossly hemolyzed specimens - specimens with obvious microbial contamination - specimens with fungal growth
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: Male, 65 to 175 ug/dL Female, 50 to 170ug/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Lipid Panel

Method	Abbott Alinity c-series various methods. Refer to individual assays in the Client Manual. Assays include: HDL, LDL-C (calculated), total cholesterol, and triglyceride
CPT Code	80061
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Grossly Lipemic specimen - Grossly Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report or individual assays in the Client Manual.
Reported	System generated fax; Electronic transmission
Limitations	Refer to individual assays in the Client Manual.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Magnesium

Method	Abbott Alinity c-series Enzymatic method
CPT Code	83735
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days.
Sample Rejection	<ul style="list-style-type: none"> - Mislabelled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	
Results	Reference Range: Adults 1.6 to 2.6 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Mycoplasma genitalium (M genitalium)

Method	Qualitative Transcription-Mediated Amplification (TMA)
CPT Code	87563 Infectious agent detection by nucleic acid (DNA or RNA)
Specimen	Swab: Vaginal/endocervical collected with APTIMA Vaginal Swab Specimen Collection kit (available from SNPHL); OR Swab: Male Urethral collected with APTIMA Unisex Swab Specimen Collection kit (available from SNPHL) OR First catch urine (male or female): patient should not have urinated for at least 1 hour prior to specimen collection
Collect in	Swab: place pink (vaginal) or blue (unisex) swab in APTIMA swab specimen transport tube, break shaft off at the scoreline, then recap tube. Urine: Transfer 2 ml urine to APTIMA Urine Specimen Transport Tube. The liquid level must be between fill lines on the tube.
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube. SPECIMEN SOURCE IS REQUIRED.
Processing	Do not open transport tubes. Specimens are placed directly on an instrument or stored in the refrigerator until next business day
Transport	Swab in transport tube: stable at room temperature for two months; refrigerated for two months; frozen for one year Urine in transport tube: stable at room temperature for one month; refrigerated for one month; frozen for one year
Sample Rejection	-More than 1 or no pink or blue swab in the APTIMA swab transport tube -The final volume of urine is NOT within the black fill lines of the Urine transport tube -Specimen quantity not sufficient for testing (QNS) -Mislabelled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Negative Positive Invalid
Reported	System generated fax; Electronic transmission
Note	Performance using any female specimen types has not been determined in pregnant women. Performance of the assay has not been evaluated in women less than 19 years of age. Therapeutic failure or success cannot be determined with the Aptima Mycoplasma genitalium assay since nucleic acid may persist following appropriate antimicrobial therapy.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Neisseria gonorrhoeae, Culture

Method	Culture Identification of <i>Neisseria gonorrhoeae</i>
CPT Code	87081 Culture 87077 Identification
Specimen	Swab: Acceptable sources: Anal, Cervical, Eye, Urethral, Vaginal, Throat
Collect in	Swab in transport media or Direct inoculation onto Modified Thayer Martin Media (MTM) plate placed in transport bag that will provide a 5-10% CO ₂ environment (available from the laboratory)
Labeling	Label with patient's full name and ID number and date of subculture
Transport	Store and ship at room temperature. DO NOT REFRIGERATE Transport to the lab as soon as possible. Swab in transport media must be transported to the lab within 1 hour of collection. Direct inoculation plates must be transported to the lab within 24 hours or incubated at 35-37°C until transported to the lab.
Sample Rejection	Inappropriate specimen transport Expired transport medium Leaking transport container Mislabeled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	72 hours
Results	<i>Neisseria gonorrhoeae</i> isolated or not isolated
Reported	System generated fax; Electronic transmission
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

NGDS Warrior Panel BioFire Defense

(Includes *Bacillus anthracis*, *Yersinia pestis*, *Coxiella burnetti*, *Francisella tularensis*, *Ebola virus* and *Marburg*)

Method	Nucleic acid detection by Multiplex PCR FDA approved the method
CPT Code	87631 Molecular amplification, multiple agents
Specimen	Whole blood (For all suspected agents: <i>Bacillus anthracis</i> , <i>Yersinia pestis</i> , <i>Coxiella burnetti</i> , <i>Francisella tularensis</i> , <i>Ebola virus</i> and <i>Marburg</i>) Sputum (For <i>Yersinia pestis</i> ONLY) Positive blood culture (For <i>Bacillus anthracis</i> and <i>Yersinia pestis</i> ONLY)
Collect in	EDTA collection tube Sterile collection cups Blood culture bottles
Labeling	Label transport tube with patient's first and last name, date of birth, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store: -Whole blood and Sputum: Room temperature up to 1 day @ 15-30 °C Refrigerated up to 7 days -Positive blood culture specimens(should be processed and tested within 24 hours of positive blood culture) Storage of samples >24 hours prior to testing is NOT RECOMMENDED Transport refrigerated (2-8°C) within 72 hours
Sample Rejection	- Specimens outside storage and transportation requirements - Misabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Detected Not Detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of pathogen infection in the patient.
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Non-variola *orthopoxvirus*

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Contact laboratory prior to sample collection. Specimens submitted must be duplicate. One for presumptive and one for confirmation. Two dry swabs of the lesion (CDC preferred) Vesicle fluid, skin, crust, “roof.” Touch prep (slide) of lesion Fresh biopsy of pustule or vesicle (no formalin)
Collect in	Sterile collection container, slides, swabs in transport container
Labeling	Label transport tube with patient’s first and last name, date and time of collection
Processing	Indicate specimen source on requisition form.
Transport	Store and transport refrigerated (2-8°C) within 1 hour or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24 hours following receipt in our laboratory
Results	Non-variola orthopoxvirus DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported or handled. False negative results may occur if inadequate numbers of organisms are present in the sample.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Norovirus, Genome Group 1 (G1) and Genome Group 2 (G2)

Method	Nucleic acid detection by Real-time Polymerase Chain Reaction (qtPCR) Non-FDA approved. Method verified by SNPHL
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Stool (random, fresh) - No preservatives or fixatives Required specimen volume: > 5 ml stool, 5 g Minimum specimen volume: 1 ml stool, 1 g
Collect in	Clean, dry container that does not contain oxidizing agents or detergents
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	- Indicate specimen source on requisition form - Stool specimen must be collected in a clean container, not contaminated with urine, residual soap or disinfectant
Transport	Store and transport refrigerated (2-8°C) within 48 hours or freeze (-20 ° C)
Sample Rejection	- Specimens > 48 hours old and not frozen - Samples collected in preservatives or fixatives - Mislabelled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Norovirus nucleic acid Genome Group 1 and 2 detected or not detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of norovirus infection in the patient. A detected result does not preclude the presence of other enteric pathogens
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Novel Coronavirus 2012

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) EUA FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Nasopharyngeal swab
Collect in	Swab specimen should be collected only on swabs with a Dacron tip and an aluminum or plastic shaft. Swabs with calcium alginate or cotton tips and wooden shafts are unacceptable. Following collection, all specimens are placed in Viral Transport Media (VTM) M4.
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 24 hours or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24 hours following receipt in our laboratory
Results	Novel Coronavirus 2012 RNA detected or not detected.
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of Novel Coronavirus 2012 infection in the patient. A detected result does not preclude the presence of other respiratory pathogens.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Novel Coronavirus 2019

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) EUA FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Nasopharyngeal swab
Collect in	Swab specimen should be collected only on swabs with a Dacron tip and an aluminum or plastic shaft. Swabs with calcium alginate or cotton tips and wooden shafts are unacceptable. Following collection, all specimens are placed in Viral Transport Media (VTM) M4.
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 24 hours or freeze (-20 ° C)
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimens >72 hours old - Swabs with calcium alginate or cotton tips and wooden shafts - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Novel Coronavirus 2019 RNA detected or not detected.
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of Novel Coronavirus 2019 infection in the patient. A detected result does not preclude the presence of other respiratory pathogens.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Orthopoxvirus

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Contact laboratory prior to sample collection Vesicle fluid, skin, crust, "roof." A dry or wet swab of the lesion (dry swab is preferred) Touch prep (slide) of lesion Fresh biopsy of pustule or vesicle (no formalin)
Collect in	Sterile collection container, slides, swabs in the transport container
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 24 hours or freeze (-20 ° C)
Sample Rejection	- Misabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24 hours following receipt in our laboratory
Results	Orthopoxvirus DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported or handled. False negative results may occur if inadequate numbers of organisms are present in the sample.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Phosphorus

Method	Abbott Alinity c-series Phosphomolybdate method.
CPT Code	84100
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult: 2.5 to 4.5 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Potassium

Method	Abbott Alinity c-series Ion-selective electrode diluted (Indirect)
CPT Code	84132
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: 3.5-5.1 mmol/L
Reported	System generated fax; Electronic transmission
Limitations	The Alinity c Chloride assay serum application is susceptible to interference effects from hemoglobin (hemolysis) at 2000 mg/dL
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Protein, Total

Method	Abbott Alinity c-series Biuret method
CPT Code	84155
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	<ul style="list-style-type: none">- Mislabeled/unlabeled specimen- Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours 1.0 to 10.0 mmol/L
Results	Reference Range: 6.4 to 8.3 g/L
Reported	System generated fax; Electronic transmission
Limitations	The Total Protein2 assay is susceptible to positive interference effects from dextran in the therapeutic concentration range.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

QuantiFERON TB Gold

Method	Chemiluminescent Immunoassay
CPT Code	86480 Qualitative or Semiquantitative Immunoassays
Specimen	Whole blood collected in lithium heparin tube catalog Vacuette LiHep 9mL – Grenier #455084 Vacuette LiHep 6mL - Grenier #456088
Collect in	5 ml of whole blood collected in Lithium Heparin tube Minimum specimen volume: 5 ml
Labeling	Label transport tube with patient's first and last name, Date of Birth or other unique identifiers. Record date and time collected on the tube.
Processing	<ol style="list-style-type: none"> 1. Invert tubes firmly enough to ensure the entire surface of the tube is coated with blood, to solubilize anticoagulants on the tube wall. 2. Refrigerate between 2-8°C within 3 hours of collection. 3. Must be received at SNPHL less than 48 hours after collection. 4. DO NOT collect specimens on Fridays and during long Holiday weekends to maintain specimen integrity.
Transport	Transport refrigerated at 2-8°C.
Sample Rejection	<ul style="list-style-type: none"> - Specimens collected in QuantiFERON blood collection tubes. -frozen specimen -Specimen older than 48hours upon arrival at the lab -Specimen quantity not sufficient for testing (QNS) -Mislabeled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48- 72 hours following receipt in our laboratory
Results	Negative Positive Indeterminate
Reported	System generated fax; Electronic transmission
Note	<ul style="list-style-type: none"> • Predictive value of a positive QFT result in diagnosing <i>M. tuberculosis</i> depends on the probability of infection which is accessed through epidemiological, historical, diagnostic and other findings • Diagnosis of latent <i>M. tuberculosis</i> requires that tuberculosis disease must be excluded by medical evaluation including assessment of current medical and diagnostic tests for disease as indicated • A negative result must be considered with the individual's medical and historical data relevant to the probability of <i>M. tuberculosis</i> infection and risk of progression to <i>M. tuberculosis</i> disease, particularly for individuals with impaired immune function. Negative predictive values are likely to be low for persons to have <i>M. tuberculosis</i> disease and should not be relied on to exclude disease
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Renal Function Panel

Method	Abbott Alinity c-series various methods. Refer to individual assays in the Client Manual. Assays include: Albumin, BUN/Creatinine Ratio (calculated), Calcium, Carbon Dioxide, Chloride, Creatinine, eGFR (calculated), Glucose, Phosphate (as Phosphorus), Potassium, Sodium, Urea Nitrogen (BUN)
CPT Code	80069
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days or 72 hours.
Sample Rejection	<ul style="list-style-type: none"> - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS) - Grossly Lipemic specimen - Grossly Hemolyzed specimen
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report or individual assays in the Client Manual.
Reported	System generated fax; Electronic transmission
Limitations	Refer to individual assays in the Client Manual.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Reportable Disease Or Unusual Isolate for confirmation, serotyping or identification (See Note for a complete list of Reportable Disease isolates to submit to SNPHL)

Method	Culture confirmation or serotyping (all organisms confirmed before being typed)
CPT Code	87077 Culture confirmation, aerobic 87147 Serotyping (<i>H. influenza</i> , <i>N. meningitidis</i> , <i>Salmonella</i> , <i>Shigella</i> , <i>Shiga toxin producing E. coli</i>)
Specimen	Pure culture of the organism.
Collect in	Appropriate media slant or plate that supports organism growth, e.g. blood, chocolate or tryptic soy agar slant. Utilize specialized media for fastidious organisms, e.g. Regan-Lowe for <i>Bordetella</i> ; Chocolate agar for <i>Neisseria</i> ; Campylobacter blood agar for <i>Campylobacter</i>
Labeling	Label stool transport container with patient's full name, date of birth, collection time and date
Special Notes	Organism must be received in the laboratory within 48 hours of subculture.
Transport	Room temperature in an appropriate growth environment, e.g. CO2 pack for <i>Neisseria</i> or Microaerophilic pouch for <i>Campylobacter</i>
Sample Rejection	<ul style="list-style-type: none"> - Desiccated or improper media - Mislabeled/unlabeled specimen - Improper growth environment for the organism
Requisition	SNPHL Request Forms SNPHL Reportable Disease Isolate requisition form
Turn Around Time	Usually within four days of receipt in the laboratory; some organisms may require variable time to complete
Results	Culture confirmation and/or serotype
Reported	System generated fax; Electronic transmission
Note	Reportable Disease Isolates Submission List
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

Respiratory Pathogen Panel BioFire-Diagnostic and Surveillance

Method	Nucleic acid detection by Multiplex PCR FDA approved the method
CPT Code	87631 Molecular amplification, multiple agents
Specimen	Nasopharyngeal swab for Diagnostic Nasal swab for Surveillance (only ordered by SNHD Office of Epidemiology)
Collect in	Swab specimen should be collected only on swabs with a Dacron tip and an aluminum or plastic shaft. Swabs with calcium alginate or cotton tips and wooden shafts are unacceptable. Following collection, all specimens are placed in Viral Transport Media (VTM) M4
Labeling	Label transport tube with patient's first and last name, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	- Specimens > 72 hours old and not frozen - Samples collected with calcium alginate or cotton tips and wooden shafts - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Adenovirus, Coronavirus 229E, Coronavirus HKU1, Coronavirus NL63, Coronavirus OC43, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), Human Metapneumovirus, Human Rhinovirus/Enterovirus, Influenza A, including subtypes H1, H3, and H1-2009, Influenza B, Parainfluenza Virus 1, 2, 3, 4, Respiratory Syncytial Virus, Bordetella parapertussis, Bordetella pertussis, Chlamydomphila pneumoniae, Mycoplasma pneumoniae nucleic acid detected or not detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of respiratory pathogen infection in the patient. A detected result does not preclude the presence of other respiratory pathogens.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

RPR (Rapid Plasma Reagin), Screening Assay

Method	Charcoal flocculation Reflex to RPR titer and TP-PA for confirmation if reactive
CPT Code	86592 RPR, 86593 RPR titer reflex 86780 TPPA reflex
Specimen	Serum (preferred) - Required specimen volume: 2-4 mL Minimum specimen volume: 1 mL serum Plasma – Tube with anticoagulant (full), minimum: 1 mL plasma
Collect in	<u>Serum:</u> vacutainer tube with or without gel. Serum is the <i>preferred</i> specimen. <u>Plasma:</u> (EDTA, Sodium Fluoride, Potassium Oxalate, Heparin) samples are acceptable
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	<u>Serum:</u> Allow blood to completely clot (usually within 30 minutes). Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer. Vacutainer without gel: Separate serum from cells into an appropriately labeled tube Vacutainer with gel: Does not require removing serum into a separate tube. <u>Plasma:</u> Centrifuged plasma specimens must be tested <i>within</i> 24 hours
Transport	Serum – Store and transport refrigerated (2-8 degrees C) within five days. Plasma – Specimens must be transported to the lab and tested within 24 hours
Sample Rejection	-Gross Hemolysis -Bacterial contaminated serum -Specimen quantity not sufficient for testing (QNS) -Mislabelled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Non-Reactive Reactive includes titer dilution ratio e.g. 1:4
Reported	System generated fax; Electronic transmission
Note	False-positive reactions occur due to pregnancy, drug addiction, collagen vascular disease, and advanced age. Note any of these conditions on requisition if applicable to the patient.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

SARS CoV-2 PCR NAAT

Method	Real-time transcription-mediated amplification (TMA)												
CPT Code	87635 Infectious agent detection by nucleic acid												
Specimen	Nasal/Nasopharyngeal Swab												
Collect in	Viral Transport Media, Hologic Lysis Tubes												
Labeling	Label transport tube with patient’s first and last name or coded identification number. Record date and time collected on the tube.												
Processing	Nasal/Nasopharyngeal swabs collected and placed in VTMs to be aliquoted to Hologic Lysis Tubes within 96 hours or collected and directly placed in Hologic Lysis Tubes												
Transport	Transport in original collection tube to the lab within 72 hours.												
Sample Rejection	Samples less than 1ml will be rejected.												
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD												
Turn Around Time	48-78 hours												
Results	<table><tr><th>SARS-CoV-2 Result</th><th>IC Result</th><th>Interpretation</th></tr><tr><td>Neg</td><td>Valid</td><td>SARS-CoV-2 not detected.</td></tr><tr><td>POS</td><td>Valid</td><td>SARS-CoV-2 detected.</td></tr><tr><td>Invalid</td><td>Invalid</td><td>Invalid. There was an error in the generation of the result; retest sample.</td></tr></table>	SARS-CoV-2 Result	IC Result	Interpretation	Neg	Valid	SARS-CoV-2 not detected.	POS	Valid	SARS-CoV-2 detected.	Invalid	Invalid	Invalid. There was an error in the generation of the result; retest sample.
SARS-CoV-2 Result	IC Result	Interpretation											
Neg	Valid	SARS-CoV-2 not detected.											
POS	Valid	SARS-CoV-2 detected.											
Invalid	Invalid	Invalid. There was an error in the generation of the result; retest sample.											
Reported	System generated fax; Electronic transmission												
Note	A positive result indicates the detection of nucleic acid from the relevant virus. Nucleic acid may persist even after the virus is no longer viable.												
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department												

Southern Nevada Public Health Laboratory
TEST MENU

Sodium

Method	Abbott Alinity c-series Ion-selective electrode diluted (Indirect)
CPT Code	84295
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 2 weeks.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: 136 to 145 mmol/L
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Stool culture for bacterial pathogens only

Method	Culture for bacterial pathogens Enzyme Immunosorbent Assay (EIA) for STEC
CPT Code	87045 Culture for <i>Salmonella</i> and <i>Shigella</i> 87046x3 Culture for <i>STEC</i> , <i>Campylobacter</i> , <i>Yersinia</i> 87427 EIA for STEC
Specimen	Stool (random, fresh) in a clean container. Specimens collected in fecal transport media or rectal swabs are acceptable. Required specimen volume: >5ml stool, 5 gm or one swab Minimum specimen volume: 5ml stool, 2 g or one swab
Collect in	Stool sample: clean container or fecal transport media Rectal swab: fecal transport media
Labeling	Label with patient's full name, date of birth, collection time and date
Transport	Store refrigerated (2-8°C) and ship at room temperature
Sample Rejection	<ul style="list-style-type: none"> - Specimens >24 hours old not in transport media; >48 hours old in transport media - Frozen sample - Multiple specimens collected on the same day - Sample submitted on diaper or tissue paper - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	Usually within four days of receipt in the laboratory
Results	Enteric pathogen isolated (name) or Altered flora present- predominant growth (name) or No Shigella, Salmonella, Yersinia, Campylobacter or STEC isolated—negative, positive
Reported	System generated fax; Electronic transmission
Note	<ul style="list-style-type: none"> - Stool specimen should be collected in a clean container, not contaminated with urine, residual soap or disinfectants - If using fecal transport media, do not fill beyond red line ("Add specimen to this line"). Mix well with transport medium (instruction sheet enclosed with collection kit). Do not use transport media past the expiration date printed on the label (i.e. EXP 11/2023) - Those portions or stool which contain pus, blood or mucous should be transferred to a clean specimen container or transport media.
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

Stool culture for bacterial pathogens including *Salmonella*, *Shigella*, *Yersinia*, *Campylobacter*, *Shiga toxin producing Escherichia coli* (STEC); Culture for *Vibrio* is available on request

Method	Culture for bacterial pathogens Enzyme Immunosorbent Assay (EIA) for STEC
CPT Code	87045 Culture for <i>Salmonella</i> and <i>Shigella</i> 87046x3 Culture for <i>STEC</i> , <i>Campylobacter</i> , <i>Yersinia</i> 87427 EIA for STEC
Specimen	Stool (random, fresh) in a clean container. Specimens collected in fecal transport media or rectal swabs are acceptable. Required specimen volume: >5ml stool, 5 gm or one swab Minimum specimen volume: 5ml stool, 2 g or one swab
Collect in	Stool sample: clean container or fecal transport media Rectal swab: fecal transport media
Labeling	Label with patient's full name, date of birth, collection time and date
Transport	Store refrigerated (2-8°C) and ship at room temperature
Sample Rejection	<ul style="list-style-type: none"> - Specimens >24 hours old not in transport media; >48 hours old in transport media - Frozen sample - Multiple specimens collected on the same day - Sample submitted on diaper or tissue paper - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	Usually within four days of receipt in the laboratory
Results	Enteric pathogen isolated (name) or Altered flora present- predominant growth (name) or No <i>Shigella</i> , <i>Salmonella</i> , <i>Yersinia</i> , <i>Campylobacter</i> or STEC isolated—negative, positive
Reported	System generated fax; Electronic transmission
Note	<ul style="list-style-type: none"> - Stool specimen should be collected in a clean container, not contaminated with urine, residual soap or disinfectants - If using fecal transport media, do not fill beyond red line ("Add specimen to this line"). Mix well with transport medium (instruction sheet enclosed with collection kit). Do not use transport media past the expiration date printed on the label (i.e. EXP 11/2023) - Those portions or stool which contain pus, blood or mucous should be transferred to a clean specimen container or transport media.
Contact	Southern Nevada Public Health Laboratory – Microbiology Department

Southern Nevada Public Health Laboratory
TEST MENU

Syphilis Antibody, Total

Method	Multiplex Bead Immunoassay Reflex to RPR, RPR titer and TP-PA for confirmation if reactive or equivocal
CPT Code	86780 Syphilis IgG & IgM
Specimen	Serum (preferred) - Required specimen volume: 2-4 mL Minimum specimen volume: 1 mL serum Plasma – Tube with anticoagulant (full), minimum: 1 mL plasma
Collect in	Serum: vacutainer tube with or without gel. Serum is the preferred specimen. Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer. Vacutainer without gel: Separate serum from cells into an appropriately labeled tube Vacutainer with gel: Does not require removing serum into a separate tube.
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer. <i>Vacutainer without gel:</i> Separate serum from cells into an appropriately labeled tube <i>Vacutainer with gel:</i> Does not require removing serum into a separate tube.
Transport	Serum – Store and transport refrigerated (2-8 degrees C) within seven days. Plasma – Specimens must be transported to the lab and tested within 48 hours
Sample Rejection	-Gross Hemolysis -Bacterial contaminated serum -Specimen quantity not sufficient for testing (QNS) -Mislabeled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours following receipt in our laboratory
Results	Non-Reactive Reactive Equivocal
Reported	System generated fax; Electronic transmission
Note	Detection of treponemal antibodies may indicate recent, past, or successfully treated syphilis infections. Therefore, the test cannot be used to differentiate between active and cured cases. False positive results may occur with yaws or pinta. AIDS patients with impaired immunity and who are coinfectd with syphilis may react falsely nonreactive in treponemal and nontreponemal tests. A non-reactive Syphilis IgG does not preclude the possibility of recent (10 years) infection with <i>T. pallidum</i> .
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

***Treponema pallidum* particle agglutination (TPPA) syphilis confirmation**

Method	Particle agglutination
CPT Code	86780 TPPA
Specimen	Serum (preferred) - Required specimen volume: 2-4 mL Minimum specimen volume: 1 mL serum
Collect in	Serum: (preferred specimen) vacutainer tube with or without gel. Plasma: vacutainer with anticoagulant (full), minimum:1 ml plasma.
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube.
Processing	Serum: Allow blood to completely clot (usually within 30 minutes). Serum may then be separated by centrifugation for 15 minutes at the speed recommended by the manufacturer. Vacutainer without gel: Separate serum from cells into an appropriately labeled tube Vacutainer with gel: Does not require removing serum into a separate tube. Plasma: Centrifuged plasma specimens must be tested within 48 hours
Transport	Serum – Store and transport refrigerated (2-8 °C) within five days. Plasma – Store and transport refrigerated (2-8 °C) to lab and test within 48 hours
Sample Rejection	-Gross Hemolysis -Bacterial contaminated serum -Specimen quantity not sufficient for testing (QNS) -Mislabeled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	Test performed weekly on Tuesday or Thursday or as indicated by test volume
Results	Non-Reactive Reactive Inconclusive Unable to report
Reported	System generated fax; Electronic transmission
Note	TPPA tends to remain reactive following treponemal infection; therefore, it should not be used to evaluate response to therapy. False positive or Inconclusive results may occur due to yaws, pinta, HIV, leprosy, toxoplasmosis, H. pylori, and drug addiction. Unable to report results to occur because the sample did not meet the test Quality Control parameters due to possible interfering substances. Specimens with Inconclusive or Unable to report TPPA results should be re-drawn in two weeks for testing and confirmed by other treponemal methods, such as Syphilis IgG or FTA/ABS.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Trichomonas vaginalis NAAT

Method	Qualitative Transcription-Mediated Amplification (TMA)
CPT Code	87661 Infectious agent detection by nucleic acid (DNA or RNA)
Specimen	Swab: Vaginal/endocervical collected with APTIMA Vaginal Swab Specimen Collection kit (available from SNPHL); OR First catch urine (female): patient should not have urinated for at least 1 hour prior to specimen collection
Collect in	Swab: place pink (vaginal) or blue (unisex) swab in APTIMA swab specimen transport tube, break shaft off at the scoreline, then recap tube. Urine: Transfer 2 ml urine to APTIMA Urine Specimen Transport Tube. The liquid level must be between fill lines on the tube.
Labeling	Label transport tube with patient's first and last name or coded identification number. Record date and time collected on the tube. SPECIMEN SOURCE IS REQUIRED
Processing	Do not open transport tubes. Specimens are placed directly on an instrument or stored in the refrigerator until next business day.
Transport	Swab in transport tube: stable at room temperature for two months; refrigerated for two months; frozen for one year Urine in transport tube: stable at room temperature for one month; refrigerated for one month; frozen for one year.
Sample Rejection	-More than 1 or no pink or blue swab in the APTIMA swab transport tube -The final volume of urine is NOT within the black fill lines of the Urine transport tube -Specimen quantity not sufficient for testing (QNS) -Mislabelled/Unlabeled specimen
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24-48 hours
Results	Negative Positive Invalid
Reported	System generated fax; Electronic transmission
Note	The Aptima Trichomonas vaginalis Assay has not been validated for use with vaginal swab specimens collected by patients. Therapeutic failure or success cannot be determined with the Aptima Trichomonas vaginalis Assay since nucleic acid may persist following appropriate antimicrobial therapy.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Triglycerides

Method	Abbott Alinity c-series instrument Glycerol Phosphate Oxidase
CPT Code	84478
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: <150 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	N-Acetyl-L-Cysteine at therapeutically achieved concentrations may lead to falsely low results.
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Tropical Fever Panel BioFire

(Includes Plasmodium, Chikungunya, Dengue and Leptospira)

Method	Nucleic acid detection by Multiplex PCR FDA approved the method
CPT Code	87631 Molecular amplification, multiple agents
Specimen	Whole blood samples
Collect in	EDTA collection tubes
Labeling	Label transport tube with patient's first and last name, Date of Birth, date and time of collection
Processing	- Indicate specimen source on requisition form
Transport	Store: Room temperature up to 1 day @ 15-30 °C Refrigerated up to 7 days transport refrigerated (2-8°C)
Sample Rejection	- Unrefrigerated specimen after 1 day - Specimens > 7 days - Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	48-72 hours following receipt in our laboratory
Results	Detected Not Detected
Reported	System generated fax; Electronic transmission
Note	A not detected result does not preclude the possibility of pathogen infection in the patient.
Contact	Southern Nevada Public Health Laboratory – Molecular Department

Southern Nevada Public Health Laboratory
TEST MENU

Urea Nitrogen(BUN)

Method	Abbott Alinity c-series instrument Urease
CPT Code	84520
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 7 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Adult Male: <50 years 8.9 to 20.6 >50 years 8.4 to 25.7 Adult, Female: <50 years 7.0 to 18.7 >50 years 9.8 to 20.1
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Uric Acid

Method	Abbott Alinity c-series instrument Urease
CPT Code	84550
Specimen	Serum – Required Volume: 2-4 mL Minimum specimen volume: 1mL
Collect in	Serum Separator Tube (SST)
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Serum: Allow blood to completely clot (usually within 30 minutes). Serum may be centrifuged at the speed and time recommended by the manufacturer.
Transport	Store and transport refrigerated (2-8°C) within 3 days.
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Male: 3.7 to 7.7 mg/dL Female: 2.5 to 6.2 mg/dL
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Urinalysis with reflex microscopic

Method	The CLINITEK Novus Analyzer and the Sysmex® UF-5000 is a urine particle analyzer using dry pad chemistry and flow cytometry respectively.
CPT Code	81003
Specimen	Urine: Uncentrifuged without preservative – Required volume: 2.0mL Minimum specimen volume: 2mL
Collect in	Clean urine sample container.
Labeling	Label with patient's full name, date of birth, collection date, and time.
Processing	Processing Urine: Aliquot into Yellow top UA no additive tube. Samples should be tested within 2hrs or earlier if testing for bilirubin or urobilinogen.
Transport	Store and transport refrigerated (2-8°C) within 24 hours.
Sample Rejection	Mislabeled/unlabeled specimen Specimen quantity not sufficient for testing (QNS) Preserved samples Visibly mucoid, foamy and bloody samples
Requisition	SNPHL Request Forms
Turn Around Time	24-48 Hours
Results	Reference Range: Refer to Laboratory Report
Reported	System generated fax; Electronic transmission
Limitations	
Contact	Southern Nevada Public Health Laboratory – Clinical Laboratory Department

Southern Nevada Public Health Laboratory
TEST MENU

Varicella zoster virus (VZV)

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved the method
CPT Code	87801Molecular amplification, multiple agents 83891Extraction of highly purified nucleic acid
Specimen	Contact laboratory before sample collection Vesicle fluid, skin, crust, "roof." A dry or wet swab of the lesion (dry swab is preferred) Touch prep (slide) of lesion Fresh biopsy of pustule or vesicle (no formalin)
Collect in	Sterile collection container, slides, swabs in the transport container
Labeling	Label transport tube with patient's first and last name. Record date and time collected on the tube.
Processing	Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 24 hours or freeze (-20 ° C)
Sample Rejection	Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD
Turn Around Time	24 hours following receipt in the laboratory
Results	VZV DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported or handled. False negative results may occur if inadequate numbers of organisms are present in the sample.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory
TEST MENU

Yersinia pestis

Method	Nucleic acid detection by real-time Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) Centers for Disease Control and Prevention (CDC) FDA approved the method
CPT Code	87801 Molecular amplification, multiple agents 83891 Extraction of highly purified nucleic acid
Specimen	Bronchial wash, transtracheal aspirate, sputum, nasopharyngeal swabs, culture isolates
Collect in	Sterile container, Evacuated sample collection tube, culture plates or tubes
Labeling	Label transport tube with patient's first and last name. Record date and time collected on the tube.
Processing	Indicate specimen source on requisition form
Transport	Store and transport refrigerated (2-8°C) within 72 hours or freeze (-20 ° C)
Sample Rejection	- Mislabeled/unlabeled specimen - Specimen quantity not sufficient for testing (QNS)
Requisition	SNPHL Request Forms Testing is performed only at the request of SNHD Office of Epidemiology
Turn Around Time	24 hours following receipt in the laboratory
Results	Yersinia pestis DNA detected (positive) or not detected (negative)
Reported	System generated fax; Electronic transmission
Note	If inhibitors are present in DNA extraction, PCR assays may produce a false negative result. A false negative result may occur if a sample is improperly collected, transported or handled. False negative results may occur if inadequate numbers of organisms are present in the sample.
Contact	Southern Nevada Public Health Laboratory – Virology Department

Southern Nevada Public Health Laboratory

CLIA 29D1027844 Nevada State License 3828LIC-0

Mailing Address: P O Box 3902, Las Vegas, NV 89127 ~ *Shipping Address:* 700 S Martin L. King Blvd., Las Vegas, NV 89106

Phone: (702) 759- 1140 ~ *Fax:* (702) 382-2032

CLIENT INFORMATION FORM

This form will be utilized to collect information needed to establish a client account with Southern Nevada Public Health Laboratory. It may also be used to update information on an established client
PLEASE PRINT CLEARLY AND INCLUDE ALL INFORMATION

GENERAL	
Facility Name	
Facility Address	
City	State Zip Code
Facility Phone #	Secure Fax
Secure Email	
Provider Information	
Provider Name	NPI Number
CONTACTS	
Primary Contact for Testing Inquiries	Title
Phone #	Email
Secondary Contact For testing Inquiries	Title
Phone#	Email
BILLING	
Billing Contact Name	Title
Phone #	Email
Billing Address	

Southern Nevada Public Health Laboratory

APPENDIX B

CLIENT INFORMATION FORM (Sample Only)
Request Current Copy of Client Information Form from SNPHL

CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory

APPENDIX C

GLOSSARY

Ambient- at room temperature (15-30 degrees C).

Culture- the growing of microorganisms, tissue cells, or other living matter in a specially prepared nutrient medium.

Frozen- samples which require freezing must be transported appropriately in a cooler with dry ice.

HIV Sample Number- sometimes referred to as “bubble number”; a unique sample identifier.

Plasma- the clear yellowish fluid portion of blood, lymph, or intramuscular fluid in which cells are suspended. It differs from serum in that it contains fibrin and other soluble clotting elements.

Refrigerated- samples which require refrigeration must be transported appropriately in a cooler with ice packs.

Serum- the clear yellowish fluid obtained upon separating whole blood into its solid and liquid components after it has been allowed to clot. Also called blood serum.

Specimen type- refers to how the specimen is collected, for example, swab, SST, Thayer-Martin

Specimen source - refers to topography or location in the body from where the specimen was taken.

Vacuum Serum Separator tubes (SST) - used for collection of serum. Plastic tubes contain clot activator and gel for serum separation. For example, gold, red, red/black, red/yellow

Vacuum tubes- used for collection of plasma containing anticoagulants or preservatives. For example, blue, lavender and gray tops.

Whole blood- blood containing two main parts; a liquid part called serum or plasma, and a solid part containing red cells, white cells, and platelets.

Southern Nevada Public Health Laboratory

APPENDIX D

Stool Specimen Collection

Stool collection kit includes

Commode collection unit and Cary Blair Transport Medium in a large Ziploc bag.

Collection of stool sample

1. Remove lid from Commode collection unit.
2. Insert open container over the toilet bowl and place under the seat so that the short portion is to the back of the bowl (see diagram below).
3. Close toilet seat to hold the collection container in place. Collect stool sample directly into the commode unit.
DO NOT URINATE IN COMMODOE. STOOL SAMPLE ONLY.
4. Remove container and firmly snap the lid on. Remove the unit frame from the commode collection bowl and discard.

If the sample is collected in a diaper, DO NOT place the diaper in the container. Scrape unabsorbed stool from the diaper into the container. If the stool sample is very liquid, it may be helpful to place saran wrap over the diaper during sample collection. This will prevent the liquid stool from being absorbed into the diaper. If saran wrap is used, then after the sample is collected, remove the saran wrap from the diaper and place the saran wrap ONLY (not the diaper) into the container.

Sample into Cary Blair Transport Medium

5. Open the commode collection container.
6. Using the collection spoon attached to the lid of the Cary Blair Transport Medium, take a small portion of the stool in the commode collection bowl and place into the Cary Blair Transport Medium. Continue to add the specimen until the red liquid reaches the black arrow fill line. DO NOT discard the remaining sample in the commode collection bowl as that will need to be submitted as well with the Cary Blair Transport Medium.
7. Mix contents gently in the Cary Blair Transport Medium with collection spoon.
8. Screw the cap on the container so that it is closed tightly.
9. Firmly snap the lid on the commode collection bowl.
10. WASH HANDS thoroughly.
11. Write name, collection date and time on a pre-printed label on the commode collection bowl container and the Cary Blair Transport Medium.
12. Place both closed containers (commode collection bowl and Cary Blair Transport Medium) into the large Ziploc bag and seal.
13. **Contact Southern Nevada Health District (SNHD) Office of Epidemiology and Disease Surveillance (OEDS) at (702) 759-1300 option #2 to arrange for specimen drop off time and receive directions to the location. Hours for sample delivery are Monday through Friday 8:00 am - 3:30 pm. They are closed on federal holidays.**

Transportation of collected stool sample

Samples will need to be delivered to SNHD OEDS at 280 S. Decatur, Las Vegas, Nevada 89107 within 4 hours of collection. If unable to deliver immediately, then refrigerate both the large commode container stool and Cary Blair Transport Medium sample in the large Ziploc bag. Deliver both samples within 24 hours of collection. The stool samples can be kept in the refrigerator or on ice until transported.


Sample Rejection Criteria

1. Specimen over 24 hours old
2. Mislabeled/Unlabeled specimen

Result Reporting


The patient will be notified of results by SNHD Office of Epidemiology and Disease Surveillance upon receipt of test results from the laboratory.

Stool Commode collection procedure



Directions for Use

- 1 Lift toilet seat, put container into support ring and place container unit on toilet bowl.
- 2 Put the toilet seat down to hold the support ring in place.
- 3 After collection of sample, remove the container unit from toilet bowl and snap lid on tightly to prevent leakage of the sample.
- 4 Untighten support ring as shown in the picture, hand the container in to the medical staff or send it according to instructions.



CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory

APPENDIX E
Nasopharyngeal Swab Collection

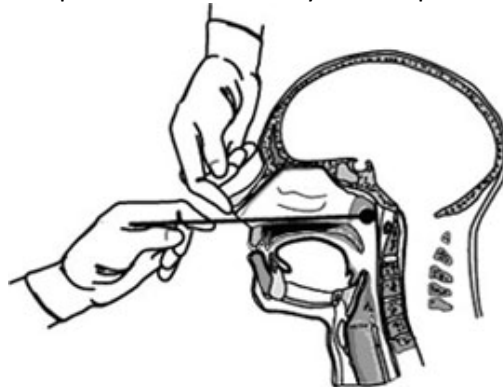
SNPHL Collection of Nasopharyngeal Specimen

Materials

1. Gloves Powder-free and non-latex preferred
2. N-95 mask – ensure collector has been fit tested
3. Eye protection/goggles for a collector to protect from coughs, sneezes or splashes
4. Lab coat or jacket
5. Facial tissues for patient use
6. Dacron or rayon flexible nasopharyngeal swab (e.g., Copan flocced swab)
7. Viral Transport Medium (VTM) or M-4

Collection

1. If a patient has much mucus in the nose, this can interfere with the collection of cells. Either ask the patient to use a tissue to gently clean out visible nasal mucus or clean the nostril yourself with a cotton swab.
2. Seat the patient comfortably. Tilt the patient's head back slightly to straighten the passage from the front of the nose to the nasopharynx to make insertion of the swab easier. Patient's head should be inclined from the vertical to about 70°. Note: Have patient sit with head against a wall as patients tend to gag and pull away during the procedure.
3. Insert the swab through one nostril straight back (not upwards) along the floor of the nasal passage until reaching the posterior wall of the nasopharynx. The distance from the nose to the ear gives an estimate of the distance the swab should be inserted. If resistance is encountered, try the other nostril; the patient may have a deviated septum
4. Rotate the swab gently to dislodge the columnar epithelial cells. Allow the swab to sit in place for 5-10 seconds.
5. Slowly withdraw the swab and place in the VTM tube. Break swab shaft at score line and place cap on tube.
6. Label the tube with the patient's first and last name, date and time of collection, and sample type
7. If two samples are required, repeat the process on the other nostril.
8. If a different patient sample is to be collected, remove gloves before collecting the sample from the second patient to ensure no cross contamination occurs.
9. Remove gloves, lab coat, respirator and wash hands
10. Refrigerate sample and transport to the laboratory on cold packs



Specimen Collection from the Posterior Nasopharynx

Image: Manual for the Surveillance of Vaccine-Preventable Diseases, 4th ed., 2008

CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory

APPENDIX F
Nasal Swab Collection

Nasal Swab Collection for Pediatric Early Warning Sentinel Surveillance Program

Materials

1. Follow institution protocol for Personal Protection Equipment (PPE)
 - a. At minimum, gloves should be worn
 - b. Additional PPE may include eye protection/goggles, N-95 respirator, lab coat
2. Unscented facial tissue for patient use
3. Copan flocked swab
4. Viral Transport Media (VTM)

Collection

1. After washing hands, put on clean gloves and institution required PPE.
2. Ask the patient to clear nasal discharge by “blowing” his/her nose into unscented facial tissue paper (allow one attempt).
3. Twist the container cap to remove the Copan flocked swab.
4. Insert the Copan swab approximately 2 cm (approximately $\frac{3}{4}$ inches) into the naris.
5. Rotate the swab against the anterior nasal mucosa for 3 seconds.
6. Using the same swab, repeat for other naris.
7. Place the swab into the Viral Transport Media (VTM).
8. Swirl the swab in the VTM for a few seconds.
9. Break the swab at the molded break point.
10. Tightly screw the cap onto the VTM.
11. Label the VTM with patient’s name and source. Place in specimen transport biohazard bag.
12. Complete the SNPHL test requisition and place in the pouch of specimen transport biohazard bag.
13. The VTM can remain at room temperature for up to four hours and then must be refrigerated until pickup by SNPHL courier.

CLIENT SERVICES MANUAL

Southern Nevada Public Health Laboratory

APPENDIX G

New order of draw for phlebotomy



MICROTAINER TUBE GUIDE AND ORDER OF DRAW CHART



Microtainers for blood sample collection are intended for use on pediatric patients where venipuncture and larger specimen volume is not a viable option. On rare occasions, microtainers may be used on adults where venipuncture is extremely difficult.

Waste Tube Use

- **Blue Top Tubes** – when using a butterfly collection device, use waste tube. Waste options includes: clear top tube (CL) or identical **blue top tube (BA)**.

Draw Site - below IV, mastectomy- other side,

- Double mastectomy, leg draws- consult patient's primary care physician; have note in chart

Cleansing Site - back and forth motion

- alcohol, povidone-iodine swab or Chloraprep – 2% w/v chlorhexidine gluconate
- Cleanse draw site, allow to completely air dry. DO NOT blot with gauze or tissue and never fan or blow on the area. DO NOT retouch area.



SOURCE: HENRY FORD HEALTH PATHOLOGY AND LABORATORY MEDICINE
ELECTRONIC LAB USER'S GUIDE

CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory

APPENDIX H
CT/GC Aptima Combo 2 specimen collection

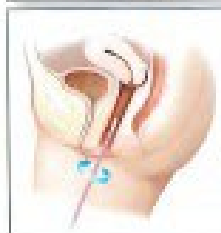
Aptima® vaginal swab device Patient collection procedure guide

Collection for vaginal swab specimens



Wash hands before starting. If you have any questions about this procedure, please ask your doctor, nurse, or care provider.

Partially peel open swab package and remove the swab. Do not touch the soft tip or lay the swab down. **If the soft tip is touched, laid down, or dropped, request a new Aptima vaginal swab specimen collection kit.** Hold swab, placing thumb and forefinger in the middle of the swab shaft over the black score line.



Carefully insert swab into the opening of the vagina, about two inches, and gently rotate swab for 10 to 30 seconds. Make sure swab touches the walls of the vagina so that moisture is absorbed by the swab. Withdraw swab without touching skin.



Break at score line



While holding the swab in your hand, unscrew the tube cap. Do not spill tube contents. **If the tube contents are spilled, request a new Aptima vaginal swab specimen collection kit.** Immediately place swab into transport tube so the black score line is at the top of the tube. Align the score line with the top edge of the tube and carefully break swab shaft. Swab will drop to bottom of the vial. Discard the top portion of the swab shaft.



Tightly screw cap onto tube.
Return tube as instructed by the care provider.

Hologic provides this collection procedure guide as a general informational tool only. It is not an alternative to instruction or guidance of performance. It is the sole responsibility of the laboratory to read and understand the appropriate package insert and comply with applicable local, state and federal rules and regulations.

hologic.com | info@hologic.com | +1.781.999.7300

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HOLOGIC®

SPECIMEN	COLLECTION INSTRUCTIONS
<p align="center"><u>Female</u> <u>Vaginal Swab</u></p> <p><u>Swabs need to be transported to the laboratory in the swab specimen transport tube at 2°C to 30°C within 60 days</u></p>	<ol style="list-style-type: none"> 1. Remove excess mucus from the cervical and surrounding mucosa using a clean swab, not provided. Discard the swab 2. Insert the specimen collection swab (pink shaft swab) into the vaginal canal. Gently rotate the swab clockwise for 10-30 seconds in the vaginal canal to ensure adequate sampling. 3. Carefully withdraw the swab. Avoid any contact with the vaginal mucosa. 4. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into transport tube so that the tip of the swab is visible below the tube label. 5. Carefully break the swab shaft against the side of the tube at the score line and discard the top portion of the swab shaft; use care to avoid splashing of contents. 6. Tightly screw the cap onto the tube. 7. Label tube with patient name, a medical record number, date, and time. Place tube in biohazard specimen bag and seal.
<p align="center"><u>Male and Female</u> <u>Urine</u></p> <p><u>Processed urine specimens must be transported to the laboratory at 2°C to 30°C within 30 days</u></p>	<ol style="list-style-type: none"> 1. The patient should not have urinated for at least 1 hour prior to specimen collection. 2. Collect specimen in a sterile, plastic, preservative-free specimen collection cup. 3. Instruct patient to collect 20 to 30 ml of first-catch urine (the initial urine stream NOT mid-stream). Collection of larger volumes may reduce test sensitivity. 4. Label the collection cup with patient name, medical record number, date, and time. 5. Remove the cap and transfer 2 ml of urine into the urine specimen transport tube using a disposable pipette. The urine level should be between the two black fill lines on the tube (referred to as minimum and maximum fill lines). The urine level must not be below the minimum fill line or above the maximum fill line. 6. Tightly screw the cap onto the tube. This is now known as a processed urine specimen. 7. Label tube with patient name, a medical record number, date, and time. Place tube in biohazard specimen bag. Seal bag. Dispose of excess urine in an appropriate manner
<p align="center"><u>Rectal Swab</u></p>	<ol style="list-style-type: none"> 1. Insert tip of Aptima Vaginal (pink) swab tip approximately 3-5 cm into the rectum. Rotate against the rectal wall at least three times. Swabs that are grossly contaminated with feces should be discarded and the collection repeated. 2. Insert swab completely into the transport tube. 3. Label the transport tube and store at 2-30°C. Transport to the lab within 60 days of collection.
<p align="center"><u>Oropharyngeal (Throat) Swab</u></p>	<ol style="list-style-type: none"> 1. Prepare specimen collection materials: tongue depressor and Aptima Vaginal (pink) swab 2. Instruct patient to tilt head back, breathe deeply, open mouth wide and say “ah.” This serves to lift the uvula and aids in reducing the gag reflex. 3. Use a tongue depressor to gently depress the tongue and look for areas of inflammation and exudate (pus). 4. Carefully but firmly rub the swab over areas of pus or inflammation, tonsils and posterior pharynx. AVOID touching the swab top the tongue, teeth, roof of the mouth or inside of cheeks. 5. Remove swab carefully from the mouth. AVOID touching the swab top the tongue, teeth, roof of the mouth or inside of cheeks. 6. Insert swab completely into the transport tube. 7. Label the transport tube and store at 2-30°C. Transport to the lab within 60 days of collection.

CLIENT SERVICES MANUAL

Southern Nevada Public Health Laboratory

APPENDIX I

Submission of Reportable Disease Specimens to Southern Nevada Public Health Laboratory (SNPHL)

Per Nevada Administrative Code (NAC) 441A.235, it is the duty of the director or other person in charge of the medical laboratory to submit microbiologic cultures, subcultures, culture-independent diagnostic tests (CIDTs) or other specimens of clinical material to the State Public Health Laboratory or other laboratory designated by the health authority for diagnosis, confirmation or further testing.

It is highly recommended that laboratories perform reflex cultures on specimens positive for CIDTs. These isolates are needed for epidemiologic investigations.

SNPHL is a branch of the Nevada State Public Health Laboratory and has been designated by the
Southern Nevada Health District (SNHD) to receive the following specimens from Clark County laboratories:

Isolates listed in bold require immediate call to SNPHL at (702) 759 1020 to arrange for pickup	
<p><i>Acinetobacter baumannii</i> (resistant to imipenem, doripenem, meropenem)</p> <p><i>Bordetella pertussis</i> or <i>parapertussis</i></p> <p><i>Babesiosis</i></p> <p>**<i>Bacillus spp</i> (non-motile and non-hemolytic)</p> <p>**<i>Brucella spp</i></p> <p>**<i>Burkholderia mallei</i> or <i>pseudomallei</i></p> <p><i>Campylobacter spp</i> culture or CIDT</p> <p><i>Candida auris</i> culture or CIDT</p> <p>**<i>Clostridium botulinum</i> or <i>tetani</i></p> <p><i>Corynebacterium diphtheriae</i></p> <p><i>Cronobacter sakazakii</i> (Nationally Notifiable Organism)</p> <p>SARS-CoV-2 (CT value < 30)</p> <p>** <i>Coxiella burnetii</i></p> <p><i>Enterobacteriaceae</i> (resistant to imipenem, doripenem, ertapenem, or meropenem)</p> <p><i>E. coli</i> 0157:h7 culture or CIDT</p> <p>**<i>Francisella tularensis</i></p> <p><i>Haemophilus influenzae</i> (sterile site)</p>	<p><i>Legionella spp</i></p> <p><i>Listeria monocytogenes</i></p> <p><i>Mycobacterium spp</i> culture or CIDT</p> <p><i>Neisseria gonorrhea</i> (disseminated, severe, resistant to cephalosporin or azithromycin)</p> <p><i>Neisseria meningitidis</i> (sterile site)</p> <p><i>Plasmodium spp</i> (blood smears)</p> <p><i>Pseudomonas</i> (resistant to imipenem, doripenem, or meropenem)</p> <p><i>Salmonella spp</i></p> <p><i>Shiga-toxin producing E. coli</i> (STEC) positive isolate, broth, or CIDT</p> <p><i>Shigella spp</i> culture or CIDT</p> <p><i>Vibrio spp</i> culture or CIDT</p> <p>VISA/VRSA isolates</p> <p>**<i>Yersinia pestis</i></p> <p><i>Yersinia spp</i> other than <i>pestis</i></p>

**** POSSIBLE SELECT AGENT**

- Sequester all culture materials
- Complete SNPHL Presumptive Select Agent chain of custody and requisition forms
- Contact SNPHL at (702) 759-1020 to arrange for pickup
- Package as Infectious Substance Category A

Isolate or Specimen Submission Procedure

- Complete customized SNPHL test requisition form for all submitted specimens. Include copy of patient demographic and work card indicating isolate identification and testing performed. If isolate is a possible select agent, the submitting laboratory must also complete a chain of custody form.
- Subculture organism to appropriate media slant or plate that supports organism growth, e.g. blood, chocolate or tryptic soy agar slant. Utilize specialized media for fastidious organism, e.g. Regan-Lowe for *Bordetella*; MTM for *Neisseria*; Campylobacter agar for *Campylobacter*. Label with patient's full name and/or ID number and date of subculture.

NOTE: if possible Select Agent do not wait for subculture, send original plates to SNPHL.

- Transport at room temperature in appropriate growth environment, e.g., CO₂ pack for *Neisseria* or Microaerophilic pouch for *Campylobacter*. Place all plates, slants, etc. in sealed biohazard bag. Organism should be received at SNPHL within 48 hours of subculture.
- Packaging of possible Select Agent isolates, *Mycobacterium* cultures and Shiga-toxin producing *E. coli* (STEC) positive isolate or broth must conform to Department of Transportation (DOT) regulations for transport of Infectious Substances, Category A. Contact SNPHL for specific Category A packaging instructions.
- Contact SNPHL at (702) 759-1020 to arrange for courier service which is available Monday-Friday, 8 am to 3 pm (closed legal holidays). Special arrangements can be made for after hour's pickup.
- There is no charge to the submitting laboratory for reportable disease testing.

NOTE: SNPHL will provide pickup and testing for reportable disease isolates. The submitting laboratory is still responsible for reporting to the SNHD Office of Epidemiology at (702) 759-1300. For isolates that require immediate notification, please refer to SNHD Reportable Diseases, Conditions and Events document:

<http://www.southernnevadahealthdistrict.org/disease-reporting/disease-reporting.php>.

Reports

- SNPHL will provide a final report for specimens submitted. Reports will be delivered by electronically, fax or as established by the submitting laboratory.
- For SNHD epidemiological statistics, surveillance and reports, please refer to the SNHD website link: <http://southernnevadahealthdistrict.org/stats-reports/index.php>.

Isolate or Specimen Submission Procedure

- Complete customized SNPHL test requisition form for all submitted specimens. Include copy of patient demographic and work card indicating isolate identification and testing performed. If isolate is a possible select agent, the submitting laboratory must also complete a chain of custody form.
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- Packaging of possible Select Agent isolates, *Mycobacterium* cultures and Shiga-toxin producing *E coli* (STEC) positive isolate or broth must conform to Department of Transportation (DOT) regulations for transport of Infectious Substances, Category A. Contact SNPHL for specific Category A packaging instructions.
- Contact SNPHL at (702) 759-1020 to arrange for courier service which is available Monday-Friday, 8 am to 3 pm (closed legal holidays). Special arrangements can be made for after hour's pickup.
- There is no charge to the submitting laboratory for reportable disease testing.

NOTE: SNPHL will provide pickup and testing for reportable disease isolates. The submitting laboratory is still responsible for reporting to the SNHD Office of Epidemiology at (702) 759-1300. For isolates that require immediate notification, please refer to SNHD Reportable Diseases, Conditions and Events document:

<http://www.southernnevadahealthdistrict.org/disease-reporting/disease-reporting.php> .

Reports

- SNPHL will provide a final written report for specimens submitted. Written reports will be delivered by electronically or as established by the submitting laboratory.
- For SNHD epidemiological statistics, surveillance and reports, please refer to the SNHD website link: <http://southernnevadahealthdistrict.org/stats-reports/index.php>.

Revised November 1, 2021

CLIENT SERVICES MANUAL
Southern Nevada Public Health Laboratory
APPENDIX J
Guidelines for using Orchard Outreach

GUIDELINES TO USING THE ORCHARD OUTREACH PORTAL FOR
SOUTHERN NEVADA PUBLIC HEALTH LABORATORY

Go to: <https://snphloutreach.snhd.org/>

Enter User Name
and Password

User Name

Password



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LANDING PAGE AND MENU BAR



New Order

Please Select a Patient

Order ID: NEW ORDER

Status: NEW ORDER

Entered by: Test, Validation S.

Ordering Location*

Patient*

Ordering Provider*

Collection Location*

Order Date*

Collection Date*

Insurance

Bubble Number

Facility Patient ID:

Facility Accession Number

Results To...

Comments

Fasting

No

0.00

Hours

TO CREATE AN ORDER FOR A NEW PATIENT:

In the New Order page, click on the Patient box and an extended window will appear. Click NEW PATIENT

New Order

Please Select a Patient

Order ID: NEW ORDER

Status: NEW ORDER

Entered by: Test, Validation S.

Ordering Location*

Patient*

Ordering Provider*

Collection Location*

Order Date*

Collection Date*

Insurance

Bubble Number

Comments

0.00

Hours

Type at least 3 characters to search.

Show Advanced Search

Name¹

Patient ID

SSN

MRN

DOB²

Sex

Address

PCP

Practice

Copy

No matching records found

Order Choices

1

New Patient

Fill In **ALL REQUIRED *** FIELDS

Demographics

Practice* SOUTHERN NEVADA PUBL

Last Name*

Prefix

First Name*

Middle Name

Suffix

Professional Suffix

Patient ID

Date of Birth (mm/dd/yyyy)*

Sex*

SSN

Race

Ethnicity

Primary Care Provider

Linked Location

Practice MRN

Phone 1

Phone 2

Email

Address 1

Address 2

ZIP/Postal Code

City

State/Region/Province

Country U.S.A.

Nationality

Ignore capitalization rules

Display ABN in Spanish

Patient is Orderable

Patient is Deceased

Comments

Alerts

Additional Information

Encounters

Results To...

Linked Docs

Diagnoses

Sign In

Aliases

Verify that all your information is correct then click **SAVE**.

The window will transition to creating an order for the patient.

Fill In **ALL REQUIRED *** FIELDS

Test, Tifiti
01/01/1983 41y F
PID: 2405150067 MRN:

Demographics | Insurance

Order ID: NEW ORDER

Status: **NEW ORDER**

Entered by: Fejerman, Renee, QAA

Ordering Location* SOUTHERN NEVADA PUBLIC HEALTH

Patient* Test, Tifiti

Ordering Provider*

Collection Location* SOUTHERN NEVADA PUBLIC HEALTH

Order Date* / / : AM Now

Collection Date* / / : AM Now Clear

Insurance No Payor

Bubble Number

Facility Patient ID:

Facility Accession Number

Results To... Comments

Fasting No 0.00 Hours

Search for the test name in the ORDER CHOICE SEARCH box.

If the test name is not known, press Enter, and a pop-up box with order choices will appear.

Order Choices

Abbreviation list Add

No diagnosis codes selected ICD-10

Order Choice Search

Diagnoses Search Summary

Order Choice	Diagnoses	Sample ID	Priority	Lab	Billing	Reference#	ABN Status	Cancel
To select an order choice, type in the text box or select an order choice list.								

Order choices can be searched or filtered according to the selections on the right side.

Click on the order choice and it will appear on the bottom as **SELECTED ITEMS**.

Verify order choices and click **ADD SELECTED ITEMS**.

Order Choice Search

Order Choice Name:

g

☒ Search All Order Choices

☐ Search Order Choice List: All Lists

☐ Search Profiles

Show 20 entries

1

Showing 1 to 6 of 6 entries

Select	Abbreviation	CPT Codes	Name	Collection Information	Host Codes
<input type="checkbox"/>	GIP		GASTROINTESTINAL PANEL, FILM ARRAY	Stool in Sterile Container	GIP
<input type="checkbox"/>	GISP Sequencing		GISP Sequencing		NEISSEQ
<input type="checkbox"/>	Gonorrhoeae Screen Cervix/Endocervix	87071	Gonorrhoeae Screen Cervix/Endocervix		GCCER
<input type="checkbox"/>	Gonorrhoeae Screen Pharyngeal	87071	Gonorrhoeae Screen Pharyngeal		GCPHAR
<input type="checkbox"/>	Gonorrhoeae Screen Rectal	87071	Gonorrhoeae Screen Rectal		GCRECT
<input type="checkbox"/>	Gonorrhoeae Screen Urethra	87071	Gonorrhoeae Screen Urethra		GCSCR

Show 20 entries

1

Showing 1 to 6 of 6 entries

Selected Items

Select	Abbreviation	CPT Codes	Name	Collection Information	Host Codes	Count	Remove
<input checked="" type="checkbox"/>	GRAM		Gram Stain		NGSTAIN	1	<input type="button" value="X"/>

Add Selected Items

Cancel

Verify the final sample order and click **SAVE**.

Test, Tifiti
01/01/1983 41y F
PID: 2405150067 MRN:

Fejeran, Renee, QAA
SOUTHERN NEVADA PUBLIC HEALTH LABORATORY

Demographics | Insurance | Order History | Options

Order ID: NEW ORDER Status: NEW ORDER Entered by: Fejeran, Renee, QAA

Ordering Location* SOUTHERN NEVADA PUBLIC HEALTH Patient* Test, Tifiti Insurance No Payor
Ordering Provider* TEST, TEST, TEST Bubble Number
Collection Location* SOUTHERN NEVADA PUBLIC HEALTH Facility Patient ID:
Order Date* 05 / 16 / 2024 11 : 21 AM Now Results To... Comments
Collection Date* 05 / 16 / 2024 11 : 21 AM Now Clear Fasting No 0.00 Hours

Order Choices

Abbreviation list Add No diagnosis codes selected ICD-10
Order Choice Search Diagnoses Search Summary

Order Choice	Diagnoses	Sample ID	Priority	Lab	Billing	Reference#	ABN Status	Cancel
Gram Stain	None selected	T.B.D.	Routine	Southern Nevada Public H	Client Bill	T.B.D.	Not Required	X

Documentation and Actions

ABN Print Labels Requisition(s) Lab Report
Clinical Info Linked Docs Cancel Order Collect Samples

Sign Out New Order Save < Back to Lab Orders

After saving the order, this will prompt a downloaded file on your web browser. Click the downloaded file, and the labels will print on the SNPHL provided label printer.



ATTACH THE LABEL WITH THE LARGE BARCODE TO THE SPECIMEN TUBE AND PLACE THE EXTRA LABELS IN OUTSIDE POCKET OF THE SPECIMEN BAG.
NEVER ATTACH A LABEL TO AN UNCOLLECTED SPECIMEN TUBE.

When you are ready for your **NEXT PATIENT**, Click on

Manage Orders
Order Patient Samples
Order Choice Catalog
Pending Orders
Batch Orders

and repeat the process above.

TO CREATE AN ORDER FOR AN EXISTING PATIENT:

Click on **ORDER PATIENT SAMPLES**

Manage Orders

- Order Patient Samples
- Order Choice Catalog
- Pending Orders
- Batch Orders

For **TEST** at least 3 characters for their last name and a list will appear. Choose the correct patient and proceed with the ordering process above.

New Order

Please Select an Ordering Location

Order ID: NEW ORDER Status: NEW ORDER Entered by: Fe

Ordering Location* SOUTHERN NEVADA PUBLIC HEALTH Insurance No Payor

Patient* TEST Bubble Number

Ordering Provider* Type at least 3 characters to search.

Collection Location* ☐ Show Advanced Search

Order Date*

Collection Date*

Name ¹	Patient ID	SSN	MRN	DOB ²	Sex	Address	PCP	Practice
Test, Jake	24-038-0000001		Fake1234	07/27/1981	M	701 Congressional Blvd Suite 360 Carmel, IN 46032		SOUTHERN NEVADA PUBLIC HEALTH LABORATORY
Test, Tifiti	2405150067			01/01/1983	F			SOUTHERN NEVADA PUBLIC HEALTH LABORATORY

Order Choices

CREATING A SPECIMEN MANIFEST

Click on **CREATE MANIFEST**

Manage Samples

- Collect Samples
- Collection List
- Create Manifest

The COLLECTION FACILITY will default to your facility.
For **LAB*** : Choose SOUTHERN NEVADA PUBLIC HEALTH LAB

Create Manifest

View Existing Manifest

Manifest Filter (hide filter)

Collection Location - All -

Entered By

Lab *

☒ Show samples

☐ Show sample

☐ Exclude sam

☐ Show samples

☐ Show collected



☐ Select samples manually




Order ID/SID



Add

Enter the specific filters as needed.

Manifest Filter [\(hide filter\)](#)

Collection Location  

Entered By   

Lab *  

☐ Show cancelled orders

☒ Show samples in the past

☐ Show samples on other manifests

☐ Exclude samples with results

☐ Show samples in the date range



☐ Show collected samples not on a manifest

☐ Select samples manually

When all the samples appear on the manifest list below, select the specific samples using the checkboxes or the word SELECT to click all samples on the list. Then click **CREATE MANIFEST**.

The manifest will appear and can be printed to go with the specimens.

Manifest

Total rows selected: 1

⚙ Show 10 entries 1 Showing 1 to 1 of 1 entries

Sample Collection Location	Select	Order ID	Patient	Sample ID	Collection Date/Time	Order Date/Time	Order Choices	Host Codes	Proposed Collection Location
SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	<input checked="" type="checkbox"/>	01101-HL-24137	Test, Tifiti	2405160068	05/16/2024 12:05PM	05/16/2024 12:05PM	GRAM	NGSTAIN	SOUTHERN NEVADA PUBLIC HEALTH LABORATORY


VIEW PENDING ORDERS

Click on **PENDING ORDERS** and a list with facility orders will appear. This list can be filtered as necessary.

Manage Orders


Order Patient Samples

Order Choice Catalog

 Pending Orders

Batch Orders

Pending Orders



Search

Recent

Pending Orders [\(show filter\)](#)

Uncollected Order Count

[\(printable version\)](#)

Refresh

Show 10 entries

1

Showing 1 to 3 of 3 entries

Order ID	Patient	Ordering Location	Order Collection Complete Date	Ordering Provider	Not Collected	Not Accessioned	No Approved Results	Sendouts (no intf)
01000-HL-24115	Test, Jake	SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	04/24/2024 12:42PM	test, test			AHP	
01102-HL-24130	Validation, Test Maui	SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	05/08/2024 9:10AM	TEST, TEST, TEST			NVOPCR	
01101-HL-24137	Test, Tifiti	SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	05/16/2024 12:05PM	TEST, TEST, TEST			GRAM	

VIEW PATIENT ORDER HISTORY

Click on **ORDER HISTORY**.

Patient Info

Demographics

Insurance

 Order History

Use the Search bar at the top of the page.



Search

Recent

Type at least 3 characters for the last name and a list will appear. Choose the correct patient and list of items to view will appear. Click on **ORDER HISTORY**.

test,ti

Search

Recent

Patients

Hotkey list

Advanced Search Filter

(show filter)

Type at least 3 characters to search.

Show 10 entries

Showing 1 to 1 of 1 entries

Master PID

Name

Patient ID

SSN

MRN

DOB

Sex

Address

PCP

Practice

Test, Tifiti

2405150067

01/01/1983

F

SOUTHERN NEVADA PUBLIC HEALTH LABORATORY

Show 10 entries

Showing 1 to 1 of 1 entries

New Patient

Orders

Hotkey list

Advanced Search Filter

(show filter)

Show 10 entries

Order Choice Abbreviations

Show 10 entries

10000003

Test, Test

24-067-0000001

10000003

Test, Test T.

2404100001

Test, Tifiti

Demographics

Test3, Test

Insurance

Show 10 entries

Order History

New Order

Collect Samples

Blank Patient Requisition

Change Log

Linked Documents

Test, Tifiti

01/01/1983 41y F

PID: 2405150067 MRN:

Order History Filter

(show filter)

Cumulative

SOUTHERN NEVADA PUBLIC HEALTH LABORATORY: Test, Tifiti / Patient ID: 2405150067 / MRN:

View Archive

Total rows selected: 0

Clear

Show 10 entries

Showing 1 to 1 of 1 entries

Order ID

Order Choice Abbreviations

Order Date

Ordering Provider

Status

01101-HL-24137

GRAM (R)

05/16/2024 12:05PM

TEST, TEST, TEST

No Results

Show 10 entries

Showing 1 to 1 of 1 entries

To view more Order details, click the specific Order ID and a list of options will appear.

Show 10 entries

Order ID	Order Choice Abbreviation
01101-HL-24137	

Show 10

Review Order

Samples

Labels

Requisition

Change Log

Lab Report

Linked Documents

Lab Info Request

VIEW ORDER RESULTS

Click on **LOCATION INBOX**.

View Results (26)

Location Inbox (26) (0)

User Inbox (0)

A list of tests that have results will appear. Each line will have the detailed information including the status.

Location Inbox

Location Recipient

SOUTHERN NEVADA PUBLIC HEALTH

Result Reports

Other Reports

Reports for SOUTHERN NEVADA PUBLIC HEALTH LABORATORY

(show filter)

Acknowledge Selected

Print Selected

Acknowledge & Print

Show 20 entries

1

Severity ¹	Priority ²	Order ID	Patient	Order Choice Abbreviations	Results Received	Order Date ³	Ordering Provider
Abnormal	-	01100-HL-24135	Validation, Test Maui	PDF REPORT, Quant HIV-1	05/14/2024 2:33PM	05/14/2024 2:24PM	TEST, TEST, TEST

To obtain results, click on the specific Order ID and a list of options will appear.
Click **LAB REPORT** to view.

Show 20 entries

Severity ¹	Priority ²	Order ID	Patient	Order Choice Abbreviations
Abnormal	-	01100-HL-24135		PDF REPORT, Quant HIV-1

Review Order

Samples

Labels

Requisition

Change Log

Lab Report

Linked Documents

Lab Info Request

To Acknowledge the report and/or Print, use the checkboxes for specific orders or click **SELECT** for all.
Choose the appropriate commands in the gray boxes.

Acknowledge Selected

Print Selected

Acknowledge & Print Selected

Delete Selected

Reprint Past Print Jobs

Refresh

Total rows selected: 0

Clear

Showing 1 to 1 of 1 entries

Results Received	Order Date ³	Ordering Provider	Recipient	Status	Select	Ack'd
05/14/2024 2:33PM	05/14/2024 2:24PM	TEST, TEST, TEST	SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	Complete	<input type="checkbox"/>	

SNPHL CONTACT

EMAIL: snphloutreach@snhd.org

Instructions for Installing ZebraZD 411 Printers

Use with Desktop Direct Thermal Barcode Labels

Desktop Direct Thermal Labels - 2 x 1"



1" CORE

Use with Zebra, Eltron, Sato, Datamax and other desktop printers.

- Bright white labels provide excellent printability for low to medium-speed printers.

