



## TECHNICAL GUIDELINES AND GENERAL INFORMATION

### Acceptable Specimen Volumes

Test entries list minimum acceptable specimen volumes. The minimum volume is defined as the absolute minimum needed to run a validated test algorithm. If there is insufficient specimen volume for testing, attempts will be made to locate any additional specimen collected by your lab on the same date and time. There may be delays in this case, and the request may be referred to ARUP's Exception Handling Department.

### Accreditation/Licensure

ARUP participates in the CAP (College of American Pathologists) Laboratory Accreditation Program and is CLIA (Clinical Laboratory Improvement Amendments) certified. ARUP also maintains current licenses, permits, and registrations required by state or local regulations. For additional information or copies of certificates, please refer to ARUP's website at [www.aruplab.com](http://www.aruplab.com) or contact ARUP Client Services.

### Clinical Research and Study Testing

Prior to the submission of study specimens and, preferably, prior to collection, contact ARUP's Clinical Research & Studies Department at (801) 583-2787 or (800) 242-2787. Study specimens submitted under a clinical account must meet all requirements for the submission of clinical specimens.

### CPT Codes

The American Medical Association's Current Procedural Terminology (CPT) codes in ARUP's Laboratory Test Directory are provided for informational purposes only. The codes reflect our interpretation of CPT coding requirements based on annually published AMA guidelines. CPT codes are provided only as a guide to assist clients with billing. ARUP strongly recommends that clients confirm CPT codes with their Medicare administrative contractor, as requirements may differ. CPT coding is the sole responsibility of the billing party. ARUP Laboratories assumes no responsibility for billing errors due to reliance on the published CPT codes.

### Crisis Contingency Plan

ARUP maintains a corporate contingency plan for crisis recovery and business continuation. The purpose of this plan is to ensure prompt recovery of ARUP Laboratories' critical business functions in the event of a crisis affecting any aspect of our continued patient care service. In the event of a local, regional, or national crisis that adversely affects timely delivery of specimens to ARUP facilities, ARUP will expeditiously initiate specific client-notification procedures to provide clients with necessary information and instruction on prearranged transportation and testing alternatives.

### Health Insurance Portability and Accountability Act (HIPAA)

ARUP Laboratories is committed to complying with privacy and security standards promulgated in the Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH).

ARUP has implemented policies, processes, and procedures designed to ensure compliance with these standards. Compliance is continuously monitored and audited for effectiveness. Workforce training is completed annually.

ARUP's Notice of Privacy Practices may be found at [www.aruplab.com](http://www.aruplab.com).

ARUP complies with the security standards by ensuring that systems, policies, and procedures meet or exceed all required and addressable implementation specifications. Internet and interface connectivity is encrypted and/or password protected, and electronic access is limited to authorized entities. Breaches of protected health information (PHI) or other confidential business information are reviewed and reported to the Department of Health and Human Services (DHHS) as necessary.

For ARUP and HIPAA compliance, contact:

ARUP Privacy Officer  
ARUP Laboratories  
500 Chipeta Way MS241, Salt Lake City, Utah 84108-1221  
(800) 242-2787, ext. 2063

## **Inappropriate Submissions**

All specimens must be collected, labeled, transported, and processed according to procedure. Review the appropriate container type, volume, and special handling requirements needed for analysis before the specimen is collected. If any of the guidelines for these processes are not met, the specimen may be rejected or the test may be canceled. ARUP's Exception Handling Department will contact the client for resolution. The following list represents some possible causes for specimen rejection or test cancellation:

- Inappropriate specimen type
- Insufficient volume for analysis
- Improperly labeled specimen
- Inappropriate specimen container
- Improper specimen transport
- Specimen has leaked in transit
- Specimen has been submitted in incorrect or expired transport media
- Incomplete or incorrect test request form (e.g., no tests marked)
- Test order without a specimen
- Specimen without a test order
- No specimen type provided
- No source provided\*
- Compromised specimen (e.g., hemolyzed, lipemic, or clotted specimens)

\*The source of specimen, when appropriate, must be included on the paper or electronic request form. The source of specimen is required for all infectious disease testing, including PCR tests.

## **Laboratory Result Reporting**

ARUP communicates laboratory results to clients by several means, including printed reports, web-enabled electronic results, direct interfaces, and access to Client Services for verbal results. Clients may request a phone notification or fax report by writing the request on the test request form, or by adding a comment to an electronic order and providing the appropriate contact information. Enhanced reports, which are available for some tests, can be downloaded by clients and physician's from ARUP Connect™ via a user name and password that accompanies the original, text-based patient test result.

Preliminary results may be offered for infectious diseases and other tests in which a final report follows. Final results are generated at the completion of the test and may contain updated information from the preliminary result. When critical values are obtained, results are called to the physician or requesting lab.

ARUP Laboratories complies with state laws by reporting certain state-defined reportable diseases and conditions to state departments of health. These reports include patient demographics and test information as required by each state's regulations. The referring laboratory must follow applicable local and state reporting requirements, including providing all required patient demographic information to ARUP for such purposes.

## **Critical Results**

ARUP's testing laboratories operate 24 hours a day, seven days a week. Critical results are reported as soon as testing has been completed and a critical result has been identified. ARUP reports critical results immediately to the contact(s) provided by our client(s) in accordance with the Laboratory Accreditation Program Inspection Checklists from the College of American Pathologists.

## **LOINC Codes**

The Logical Observation Identifier Names and Codes (LOINC) database provides a universal code system for reporting laboratory and other clinical observations. LOINC codes are being used by large reference laboratories and federal agencies (e.g., the CDC and the Department of Veterans Affairs) and are part of the HIPAA attachment proposal. To request LOINC codes, call Client Services at (800) 522-2787.

## Medicare Coverage of Laboratory Testing

When ordering laboratory tests that are billed to Medicare/Medicaid or other federally funded programs, the following requirements may apply:

1. Only tests that are medically necessary for the diagnosis or treatment of the patient should be ordered. Medicare does not pay for screening tests, except for certain specifically approved procedures, and may not pay for non-FDA-approved tests or tests considered experimental.
2. If there is reason to believe that Medicare will not pay for a test, the patient should be informed. The patient should sign an Advance Beneficiary Notice (ABN) to indicate that he or she is responsible for the cost of the test if Medicare denies payment.
3. The ordering physician must provide an ICD-9 diagnosis code, not a narrative description, if required by the Medicare administrative contractor.
4. Organ- or disease-oriented panels should be billed to Medicare only when every component of the panel is medically necessary.
5. ARUP- and client-customized panels should be billed to Medicare only when every component of the customized panel is medically necessary.
6. Medicare National Limitation Amounts for CPT codes are available through Centers for Medicare and Medicaid Services (CMS) or its contractors. Medicaid reimbursement will be equal to or less than the amount of Medicare reimbursement.

## Panels and Reflex Testing

ARUP offers groups of tests based on accepted clinical practice, as well as those defined by the American Medical Association's Current Procedural Terminology (AMA CPT) codes. Components of these panels may be ordered individually, unless otherwise indicated.

ARUP offers reflex testing, in which additional testing will be performed on specimens depending on the results of the initial test. There are two types of reflex panels: standard reflex test panels and compulsory reflex test panels. A standard reflex test panel allows the physician the option of ordering either the reflex test group or a single test. A compulsory reflex test panel automatically generates a request for additional testing if the result of the initial test meets or falls outside certain ranges. In many cases, and especially in infectious diseases and blood bank procedures, compulsory reflex test panels have been predetermined based on specific medical criteria accepted as standard-of-care by the medical community. These panels may not be available for ordering at the individual component level.

## Patient History Forms

Patient history forms provide ARUP with information necessary to interpret patient results. Tests that require this information are identified in the Alphabetical Test List with the following icon:



These forms are available on [www.aruplab.com](http://www.aruplab.com) and should be submitted with the test request form or electronic packing list.

## Patient Informed Consent Forms

Patient informed consent forms are required by state or federal laws for a number of genetic tests. ARUP has provided forms on our website for clients and their physicians who do not have their own forms. These forms should be filled out by the physician and patient and retained in the patient's file. The Huntington Disease test that requires this form is identified in the Alphabetical Test List with the following icon:



The request to order tests published in this Laboratory Test Directory certifies to ARUP that the ordering physician has obtained the informed consent of the patient as required by applicable state or federal laws for each test ordered and that the ordering physician has authorization from the patient permitting ARUP to report results of each test ordered to the ordering physician.

Counseling and informed consent are recommended for genetic testing. Consent forms are available on [www.aruplab.com](http://www.aruplab.com).

## Reference Intervals

ARUP strives to provide clear, unambiguous reference intervals and has adopted a non-overlapping style for age groups. For example, an age group listed as 0 to 2 years should be used for all subjects from birth up to their third birthday. When reference values have been obtained from literature, ARUP conducts validation testing to confirm the values. The literature-provided age groups may be revised by ARUP in order to conform to our standard style.

## Referral Testing

One of ARUP Laboratories' service goals is to support clients by providing comprehensive service for all reference laboratory testing. To accomplish this goal, ARUP has enhanced its in-house test menu of over 3,000 tests and test combinations by selecting primary vendors to perform additional tests not performed at ARUP. Primary referral vendors are selected based upon a corporate protocol that considers the aspects of service, quality, reliability, turnaround time, and price.

Every effort is made to test specimens at ARUP or at a primary vendor's laboratory. If a client requests that a test be sent to a specific outside vendor and the test is performed at ARUP Laboratories, an additional fee will be added.

All referral specimens are shipped for next-day delivery, Monday through Thursday. Specimens are also shipped on Friday to referral laboratories that accept weekend delivery. Specimens for tests with short stabilities should not be shipped to ARUP Friday through Sunday.

ARUP's transport carriers recognize the following as official holidays. As a result, specimens will not be shipped to referral laboratories on the day before or the day of the following holidays:

New Year's Day	January 1
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September
Thanksgiving	Fourth Thursday in November
Christmas	December 25

Specimens submitted for referral testing are shipped on Martin Luther King, Jr. Day and Presidents' Day.

ARUP reserves the right to change vendors and test parameters for referral testing at any time. If you would like additional information about ARUP's referral testing services, please contact the Referral Testing Department at (800) 242-2787, ext. 5145.

## STAT Testing

Certain tests are available to be performed stat. Clients requesting stat testing should contact ARUP's Client Services, who will immediately contact the appropriate laboratory for approval. Clients requesting STAT testing must contact ARUP's Client Services Department. Client Services will immediately contact the appropriate laboratory for approval. If the request is approved, ARUP will ensure that testing is performed promptly.

ARUP realizes that situations arise which may make it impossible to obtain approval in advance (e.g., when the specimen is already in transit or already at ARUP when the STAT is requested). In these situations, please contact Client Services as soon as possible.

ARUP will assess a STAT testing fee for each STAT test performed. A STAT call-in fee will also be assessed if a technologist must be called in to perform the testing after normal laboratory operating hours. A STAT transport fee may be assessed if special transport is required.

## Supply Orders

ARUP provides specialty vacutainers, containers, and forms for the collection and transport of select laboratory specimens. The following specialty vacutainers may be ordered: yellow (ACD Sol. A), royal blue (EDTA), royal blue (Plain, Metal Free), SPS for microbiology, and hemogard tan (K2EDTA).

Additionally, ARUP provides test-specific collection and transport kits when required. Supplies may be ordered electronically using eSupply, or clients may contact a Client Services representative.

## Test Turnaround Time

Turnaround time is defined as the usual number of hours or days between the time a specimen is received at ARUP and the time a test result is released. Testing schedules may change. Contact Client Services for information about current testing schedules.