



DUHS Clinical Laboratories Overview

Services are provided through an integrated network of CAP/CLIA accredited laboratories located throughout the Health System. Our laboratories also oversee point-of-care testing, Phlebotomy and Client Services (the laboratory call center: 919-613-8400).

- DRAH and DRH have their own on-site laboratories
- Duke Hospital has multiple on-site specialty laboratories and one large central automated laboratory, DCAL (<https://clinlabs.duke.edu/our-laboratories>)
- When collected and sent 'to the lab' through the tube system or dropped off at DCAL (Hudson Bldg, Rm 1520, 2351 Erwin Rd Durham, NC, 27705) specimen will automatically route through DCAL to the proper performing lab.

Test Menu and Laboratory Help

The Electronic Test Catalog (<https://testcatalog.duke.edu>) can be found on PIN stations. This catalog lists all tests performed in our Duke Laboratories or sent out to one of our two reference lab partners (LabCorp, Mayo). Tube type, reference ranges, interpretative criteria, performing lab and turn around time (TAT) are all present in the test catalog. Referral laboratory testing should be confined to only that which is essential for the care of the patient. Outside referral laboratory testing on a hospital in-patient should be a rare event. Send out testing typically has a several day TAT.

Our Client Services team can assist with your questions and can connect you with anyone in our labs. **919-613-8400**.

Test Priorities

STAT - Highest priority, fastest TAT. Phlebotomy does not collect STAT specimens. They are collected by nurses, house staff or other clinical care providers.

Urgent/Routine - There is no difference in the TAT or collection priority for Urgent and Routine. Both are usually collected by phlebotomists. Both have TATs close to that of a STAT test for hospital in-patients.

Tests ordered for and intended to be collected at an exact time (eg. Peak or Trough drug values) – These must be drawn by nurses, house staff or other clinical care providers.

Phlebotomy (Laboratory Support Services)

- Phlebotomy coverage is 24/7/365.
- The early morning draw for adult patients occurs between 0215-0800. For a test to be collected during this time, orders must be in Maestro Care no later than 0200.
- Routine adult phlebotomy occurs hourly between 0900-0200. During this time phlebotomy teams perform hourly sweeps of the hospital. Collection occurs within a two hour window centered on the order target time.
- The Early Morning Draw for Pediatric Patients occurs between 0630-0830. Outside of the early AM draw, pediatric phlebotomy occurs every two hours beginning at 0100.



Reference Ranges and Interpretive Data

- Results that fall outside of applicable reference ranges are flagged as either high or low in Maestro care. Approximately 5% of the normal population will have a result outside of the reference range for any one analyte
- Not all results have reference ranges; some have 'interpretative criteria'. Results that fall outside of the applicable interpretive data range may NOT be flagged. All results must be carefully reviewed to ensure detection of every abnormality.

Rejected Specimens.

Hemolysis, clotted specimen, insufficient volume, and improper labeling (no label, label not attached to tube) are the most common causes of specimen rejection. Care in specimen collection can lead to reduced rejection rates.

Critical Results Notification

- Critical results are defined as laboratory values that if not immediately acted on can lead to patient death. A list of our critical result values can be found here (<https://intranet.dh.duke.edu/DUHSClinLabs/Pages/Laboratory-Policies.aspx>)
- Critical results once identified must be called within 30 minutes of result availability to a licensed health care provider. A resident may be asked to receive a critical result if they are the person directly responsible for care of the patient at the time the result becomes available.
- To ensure the accuracy of patient information communicated via telephone, the recipient of the alert value is required to read back the patient's first and last name, date of birth and the critical result. The name of the caller and the recipient are noted in Maestro Care.

Specimen Collection and Labelling

- During routine operations (eg. not during a system 'down time'), all specimens should be labelled with Beaker specimen labels. Labels must be attached to collection containers immediately after the specimen is collected, before leaving the collection location.
- If a label prints, a collection event is expected. For some tests or combination of tests, more than one tube of blood may be required. The number of tubes required is the same as the number of labels that print. Container sharing rules are in place to ensure appropriate blood conservation.
- Specimens should never be electronically collected in Epic before they are physically collected.

Down Time

- On rare occasions Epic will be taken off line. This is usually scheduled. When this occurs, laboratory orders should be placed using 'Down Time Requisition Forms' and collection containers should be labelled with patient demographic labels.
- During a Down time, results will not post in Epic. When the down time is over, results will be posted in Epic. Critical values will be called to providers as outlined above.