

Laboratory Services for children's hospital

Learn more about Laboratory Services for University of Minnesota Amplatz Children's Hospital, including laboratory locations, hours and services.

Clinical Pathology Laboratories

Location: third floor of the East/South buildings, with the exception of the Neonatal Intensive Care Unit (NICU) Laboratory on the fourth floor. To minimize turnaround time, maximize use of space and enable testing to be performed near the patient, testing will be decentralized.

Hours: 24 hours a day, with the exception of the OR Laboratory, which is open weekdays, 7 a.m.-3:30 p.m.

Riverside Blood Bank will provide transfusion services for pediatric and adult patients. The space is being remodeled to include an irradiator and have increased capacity. Permanent blood bank staff will rotate between the blood banks on both campuses.

Riverside Acute Care Laboratory will perform routine testing similar to that performed in the University Acute Care Laboratory. This laboratory will perform testing for pediatric and adult Emergency Departments, pediatric and adult outpatient clinics and adult inpatients. Based on feedback from physicians, testing will be added for:

- osmolality, urine sodium/potassium, FENA
- plasma hemoglobin
- body fluid analysis
- methotrexate, tobramycin
- platelet function (ADP and EPI)
- platelet response to anti-platelet medications
- thromboelastography to platelet inhibition mapping and to assess clotting in the OR
- reducing substances

OR Laboratory will perform blood gases with measured saturation, electrolytes, ionized calcium, lactate, glucose, hemoglobin and platelet count.

Children's Laboratory will perform routine chemistry (comprehensive metabolic panel +), hematology (CBC with differential) and coagulation testing (INR, PTT, Heparin Xa, Fibrinogen, D-Dimer). This laboratory will perform testing for the pediatric inpatients. Additionally, this laboratory will respond to emergent patients, post-ops and codes in the Pediatric Intensive Care Unit with a blood gas analyzer (blood gases with measured saturation, electrolytes, ionized calcium, lactate, glucose, hemoglobin) at the bedside. Research samples for blood and marrow transplant inpatients will be transported to researchers on the University campus via the Children's Laboratory.

NICU Laboratory will continue to perform testing as is current practice.

University campus Special Diagnostic Laboratories will perform testing as is current practice. To facilitate turnarounds, a courier will transport samples every 30 minutes.

Apheresis

- Inpatient apheresis services will be performed at the bedside.
- Outpatient apheresis services will be performed in the ninth-floor Infusion Center, University campus.
- Staff from the University Apheresis Center will travel to Amplatz to perform the procedures.

Anatomic Pathology Laboratories

- Histology is located on the Riverside campus, next to the Acute Care Laboratory.
- A surgical pathologist is on site weekdays during the day for frozen sections and other biopsy and tissue interpretations. Telepathology equipment is available in the surgical pathologist office.
- Special hematology staff will travel to Amplatz to assist with marrow collections. A plan is being developed for review of slides using telepathology (between the University laboratory and an area to be determined on the Riverside campus).

Patient collection sites

- 2512 Pediatric Laboratory. Hours: Monday-Thursday 7:30 a.m.-5:30 p.m.; Friday 7:30 a.m.-4 p.m.
- Ninth-floor East Pediatric Laboratory. Hours: Monday-Friday 7:30 a.m.-4 p.m.
- 12th-floor East Pediatric Laboratory. Hours: Monday, Wednesday and Friday, 7:30 a.m.-4 p.m.; Tuesday and Thursday, 7:30 a.m.-5:30 p.m.
- Outpatient Laboratory will continue to operate from the West building, where it shares space with the Riverside Primary Care Clinic. This site will service adult and pediatric patients.
- Blood is collected by venipuncture or venous access device for pediatric and adult inpatients and outpatients.

Karin Libby, Priscilla Bormann and Chris Senn
UMMC and UMACH Laboratories

New tests for deamidated gliadin antibodies, IgA and IgG, replaced the older gliadin antibody tests at University of Minnesota Medical Center, Fairview's Protein Lab this month. Testing for IgA and IgG antibodies to unmodified gliadin proteins is no longer recommended because of the low sensitivity and specificity of these tests for celiac disease; however, recent studies have identified specific B-cell epitopes on the gliadin molecule that, when deamidated by the enzyme tTG, have increased sensitivity and specificity for celiac disease. If you have questions, contact the Protein Lab, 612-273-4047.

On Nov. 9, University of Minnesota Medical Center, Fairview's Laboratory converted to the Ortho Clinical Diagnostics' endpoint spectrophotometric methodology for measuring Hemoglobin A1c

The Hemoglobin A1c will be performed in both the Riverside and University Acute Care Laboratories and provide 24/7 availability as requested from the Acute Care Diabetes Advisory Committee.

The method is standardized to the National Glycohemoglobin Standardization Program and is linear to 14 percent A1c. The method also has been validated against the Hemoglobin A1c HPLC method reported by our Collaborative Studies Clinical Laboratory (CSCL).

Specimen requirements are 1 mL blood collected in EDTA (lavender top) tube. Samples containing hemoglobin variants S, C, E and F do not interfere with accurate hemoglobin A1c measurement by this new method.

Reference/therapeutic range

The reference range was validated against the HPLC method in CSCL and will remain 4.3-6.0 percent.

If you have questions, contact: John Eckfeldt, MD, medical director, Acute Care Laboratory, 612-626-3176; Kathy Skogseth, technical supervisor, Riverside Acute Care Laboratory, 612-273-6118; or Julie Jacobs, technical supervisor, University Acute Care Laboratory, 612-273-0149.

Effective Dec. 1, the reference range for activated protein C resistance will change to better reflect values being obtained with the latest lot number of kit reagents. The new reference is:

- APC ratio = 2.0–3.50
- Normalized APC ratio = 0.83–1.12

If you have questions, contact [Nicole Dodge Zantek](#), MD, PhD, medical director, Special Coagulation Laboratory, 612-626-3768.

Effective Dec. 1, Factor 13 antigen will be performed by the Latex Immunoassay (LIA) method, replacing the Laurell Rocket method. This method measures the antigen level of Factor 13 A subunit. The LIA assay takes 1.5 hours to perform, compared to the labor-intensive agar gel plate preparation and overnight incubation for the Laurell Rocket method.

For efficient reagent use, the assay will be batched and performed every one to two weeks, depending on pending sample volume. STAT testing is available after consultation with the Special Coagulation Laboratory director.

Factor 13 antigen results using the LIA assay are affected by the following interfering substances:

- hemoglobin >500 mg/dL
- bilirubin >18 mg/dL
- triglycerides >1280 mg/dL
- rheumatoid factor >500 IU/mL

The results will appear higher. Clinical correlation is recommended.

- Specimen requirements are: 2.7 mL blood (in 3 mL tube) in Na Citrate 3.2 percent—filled to fill line on the tube
- Minimum volume: 1.8 mL (in 2 mL tube)—filled to fill line on the tube

The reference range will remain 60–130 percent.

If you have questions, contact [Nicole Dodge Zantek](#), MD, PhD, medical director, Special Coagulation Laboratory, 612-626-3768.