ChristianaCare

Department of Pathology & Laboratory Medicine

LabScope

June 1st, 2026

WILMINGTON CAMPUS LABORATORY LAUNCH'S ABBOTT GLP TRACK SYSTEM

In January 2026, the Wilmington General Laboratory reached an important milestone with the launch of the Abbott GLP Track System. This was the first time the Wilmington Campus implemented a fully automated, end to end laboratory system. More than a technology upgrade, this change represented a redesign to improve work efficiency and patient safety, for both caregivers and patients. The new system created a strong operational foundation to support high acuity care while also supporting staff wellbeing.

Before automation, most daily laboratory work relied on manual steps. Specimens were manually handled multiple times from receiving, centrifugation, aliquoting, testing, storage, and add on testing. While these processes were safe and dependable, they increased workload, created variability, and made it harder to manage peak volumes or urgent testing. For patients, especially those needing rapid results, these manual steps could lead to longer turnaround times and delayed clinical decisions.

The implementation of GLP Track changed this process. Specimens now move through a standardized, automated workflow with fewer handoffs and less manual handling. Add on testing time has decreased from about seven minutes to two minutes per specimen, a reduction of 70 percent. This improvement translates to an estimated 6,800 staff hours saved each year. Automation of centrifugation, aliquoting, storage, and retrieval have improved throughput and reduced bottlenecks during high volume and high acuity periods.

These improvements have made daily operations more efficient and sustainable. Rules based middleware helps ensure consistent workflows by allowing routine results to move forward automatically while directing only flagged results, such as critical values or errors, for professional review. Auto verification is governed to support patient safety, clinical oversight, and regulatory compliance. Updated and standardized analyzers have also improved reliability and reduced disruptions as testing volumes continue to grow.

Caregivers have experienced meaningful benefits from automation. Fewer repetitive manual tasks and interruptions have reduced physical strain and cognitive burden, which are common contributors to burnout. Staff can now focus more on quality review, exception management, and problem solving instead of routine specimen handling. Standardized workflows have improved consistency across shifts, strengthened teamwork, and supported a safer, more reliable work environment.

Patients and clinical teams have also seen improvements. Faster and more predictable turnaround times support timely diagnosis and treatment, especially in emergency settings. Shorter add on testing times reduce the need for repeat blood draws, improving patient comfort and satisfaction. Consistent laboratory performance builds trust with clinicians and strengthens collaboration across care teams.

By introducing advanced automation at the Wilmington Campus, the General Laboratory has set a new standard for laboratory operations. The Abbott GLP Track implementation shows how investing in thoughtful technology can improve efficiency, patient care, and workforce wellbeing. With less manual work and more standardized processes, the Wilmington General Lab is well positioned to support both caregivers and patients while sustaining high quality performance into the future. ***See related photo on page 4***

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Updates from our Laboratories……

General Laboratories….

Rheumatoid Factor (RF) Testing Changes

On 5/13/2026, ChristianaCare laboratory changed the assay for the Rheumatoid Factor (RF) test because of unavailability of old RF assay and lack of clarity that it will be available soon or again. The result with the new assay may differ when compared to the old assay due to differences in methodology. Therefore, assay specific interpretation of result and clinical correlation is recommended. The reference ranges for the old and new assays are provided on the table below.

Old RF Assay Reference Range for Adults	New RF Assay Reference Range for Adults
<12.5 IU/mL	<30 IU/mL

Molecular….

Patient-Collected Vaginal HPV Testing Now Available

The Molecular Lab is now testing patient-collected vaginal HPV samples. Samples must be collected in a clinical setting, but this expands the HPV screening options for patients and providers within the ChristianaCare system. Our goal is to increase access for those who have never been screened for HPV or have not received adequate screening.

- Direct-to-Molecular HPV PCR average turnaround time: < 3 days.
- Patient-Collected Vaginal HPV testing is not FDA-approved for reflex Pap Smear.
- If the test is positive for high-risk HPV, the patient can be referred for a clinician collected Cervical Pap Test or directly to colposcopy depending on the HPV result.
- Pap smear with reflex to HPV PCR average turnaround time: < 12 days:

It is important to note that Patient-Collected Vaginal HPV samples must be collected with Copan FLOQSwab brushes and ThinPrep vials. Collection materials are available through Workday ordering: Copan swabs: 10191145 and ThinPrep vials: 10191081. Questions about supplies and testing can be directed to the Molecular Lab at 302-733-3530.

Microbiology….

New Rapid Molecular Multiplex Vaginal Panel in Microbiology

The Microbiology laboratory is introducing a new testing method for the detection of organisms associated with vaginitis.

Vaginitis is a leading cause of clinic visits by women, with more than 10 million per year in the United States. Rapid and accurate diagnosis of vaginitis symptoms can help guide and facilitate treatment.

The new Cepheid Xpert® Xpress MVP cartridge offers a multiplex PCR panel that delivers results within an hour. This test will replace the current DNA probe test at both the Newark and Wilmington campuses, offering improved sensitivity and more comprehensive result panel from a single swab.

This test detects bacterial vaginosis, Trichomonas vaginalis, and distinguishes two different treatment-based groups of yeast that cause vulvovaginal candidiasis. It is offered 24 hours a day, 7 days a week.

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Q & A

Anti-Xa-Based Unfractionated Heparin (UFH) Dosing and Monitoring

What are the common laboratory tests used for UFH dosing and monitoring?

The two primary laboratory tests used for unfractionated heparin (UFH) dosing and monitoring are:

- Activated Partial Thromboplastin Time on Heparin (HPTT)
- Anti–Factor Xa (Anti-Xa) assay

⚠️ **Important:** Prothrombin Time (PT) is not useful for UFH dosing or monitoring.

Why did ChristianaCare implement anti-Xa-based Unfractionated Heparin (UFH) monitoring?

ChristianaCare transitioned from HPTT-based to Anti-Xa-based monitoring due to several key advantages:

- Improved reliability in acutely ill patients: HPTT is often unreliable in critically ill or inflammatory states
- Reduced risk of adverse events: Variability in HPTT may increase bleeding or thrombotic risk
- Faster achievement of therapeutic anticoagulation: Patients typically reach target levels more quickly
- Greater stability within therapeutic range: Anti-Xa monitoring results in fewer fluctuations and dose adjustments

Why is HPTT result less reliable for UFH dosing and monitoring?

Since HPTT is a clot-based assay, it is heavily impacted by coagulation factors in the intrinsic and common pathway such as Factors I (Fibrinogen), Factor II, Factor V, Factor VIII etc. Fibrinogen and Factor VIII are acute phase reactants which tend to be elevated on patients with inflammation and infection. Increased levels of fibrinogen and factor VIII cause the HPTT result to be subtherapeutic while the anti-Xa levels are therapeutic.

What is the therapeutic UFH level using anti-Xa test?

The therapeutic UFH level for UFH using standard protocol is 0.30-0.70 IU/mL which correlates with the therapeutic HPTT range of 63 – 85 seconds.

What are the limitations of the anti-Xa test?

Anti Xa assays may be unreliable or unavailable in certain conditions due to interference:

Interfering Condition	Threshold
Hyperbilirubinemia	> 20 mg/dL
Hemolysis	> 300 mg/dL
Hypertriglyceridemia	> 800 mg/dL

Clinical implication: Anti Xa may fail to produce a result or be inaccurate.

⚠️ **Important:** In these cases, UFH should be monitored using HPTT instead.

Do clinicians need to do anything regarding anti-Xa order?

- ✅ No additional action required for standard use: All heparin PowerPlans include Anti-Xa orders
- ✅ Clinicians may order standalone Anti-Xa levels if needed
- ⚠️ **Important:** Do NOT co-order tests: Anti-Xa and HPTT (or aPTT) should NOT be ordered together

If you have any laboratory questions or suggestions for future LabScope Q&A sections, you can submit it here:

Laboratory Q&A Submission Form