

NEW Wireless iSTAT Devices Introduced by POCT LAB

iSTAT is a sophisticated technology utilized at the point-of-care (patient bedside) to produce lab-quality diagnostic results. This lightweight and easy-to-use device operates with the advanced technology of iSTAT test cartridges to provide results for: blood gases, electrolytes, lactate, BUN, creatinine, hematocrit, activated clotting time and even glucose*. Together, the device and cartridge(s) create the iSTAT System — a point-of-care-testing platform that provides healthcare professionals at ChristianaCare with diagnostic information in real-time.

As of December 2025, the Point of Care Laboratory completed its FY25 capital initiative to update/replace our aging fleet of iSTAT devices (gray colored) with downloader cradle required to upload results across the Delaware campuses.

The old fleet has been replaced with new wireless iSTAT devices (blue colored), which now facilitate instantaneous charting of iSTAT testing via ChristianaCare's wireless network, a definite clinical improvement.



NOTE: iSTAT was introduced on the Cecil campus in 2024 (prior to the POCT LAB's decision to go 100% wireless with iSTAT). The POC LAB does plan to upgrade Cecil campus to wireless iSTATs by the end of 2026.

There are more than 150 iSTAT devices currently in use throughout the health system. Believe it or not, a large majority of the old gray iSTAT device fleet had been in service for more than 15 years! Therefore, time for a well-deserved retirement! Some of the more recently purchased gray colored iSTAT devices (with required downloaders) will be maintained by POCT LAB for use as loaner/training/competency devices, as needed.

The manufacturer (Abbott) requires use of lithium batteries for our new wireless iSTAT devices. Use of standard alkaline batteries are actually prohibited, as alkaline battery use will nullify the manufacturer warranty of the new analyzers.

Nearly all iSTAT testing is considered 'moderately complex'; which creates an added regulatory burden on the campus laboratories with regard to operator training and competency assessments. Annual training and competency for any/all moderately complex test systems must be conducted by caregivers that meet or exceed minimal educational requirements as required by CLIA (Clinical Laboratory Improvement Act). This differs from simple 'WAIVED' point-of-care test systems which are essentially error-proof and require just minimal training and annual competency.

**iSTAT glucose is the only approved point of care test system within ChristianaCare for critically ill patients (defined as patients in active cardiac arrest and/or with prolonged hypotension (MAP <50 mmHg greater than 30 minutes). Roche Accu-Chek is NOT approved for use in critically ill patients.*

Updates from our Laboratories.....

MICROBIOLOGY....

Discontinuation of H. pylori IgG Serology (Effective Jan 1, 2026)

KEY CHANGE

- H. pylori IgG serology testing was discontinued as of January 1, 2026.

WHY IT'S DISCONTINUED

- Major clinical organizations (ACG, ASCP, IDSA) **no longer recommend IgG serology** for H. pylori.
- Reference labs (Mayo Clinic, Quest) have **already stopped offering** this test.
- The assay is outdated and **consumes excessive QC materials**—four times more reagents than patient testing.
- Removing it **frees capacity** for more clinically relevant serology tests.

PREFERRED TEST GOING FORWARD

- H. pylori Stool Antigen Test
 - Recommended for noninvasive screening.
 - Also recommended for post treatment eradication testing.
 - Performed daily at the Newark campus microbiology lab.
 - Turnaround time: ≤ 8 hours.

REFERENCE

- Xu & Graham, Journal of Hospital Medicine, 2021: critique of H. pylori serologic testing.

CONTACTS

- Cynthia E. Flynn, MD
- Stephanie Kelly, MT

Histology & Cytology....

The Pathology Department will be sending urinary (bladder and kidney) stones to Mayo Medical Labs for processing beginning on February 1, 2026. Louis Herring, Inc., the laboratory that processed stones for ChristianaCare for over twenty years, terminated operations on January 31, 2026. We look forward to working with Mayo Medical Labs in this endeavor. The laboratory would like to thank Louis Herring for their years of service and dedication to patient care.

General Laboratories....

New Sysmex Urinalysis (UA) Test System

ChristianaCare Laboratories systemwide have purchased the CLINITEK Novus® Automated Urine Chemistry analyzers along with UF5000 fully automated Urine Particle analyzers and UD-10 Urine Particle Digital Imaging devices. These analyzers were purchased to standardize UA testing and resulting between campuses and improve accuracy of microscopy results and increase testing efficiency. Anticipated go-live date: March 2026.

There will be following changes in the results of biochemical (dipstick) and microscopy parameters.

<u>Parameter</u>	<u>Current</u>	<u>New</u>
Bilirubin	Negative, Positive	Negative, Small, Moderate, Large
Blood	Negative, Trace, 1+, 2+, 3+, >3+	Negative, Non Hemolyzed Trace (NHT), Non Hemolyzed Trace Moderate (NHT Moderate), Hemolyzed (Trace), Small, Moderate, Large
Glucose	Negative, 30, 100, 500, 1000, >1000	Negative, 100, 250, 500 \geq 1000, \geq 2000
Leukocyte Esterase	Negative, Trace, 1+, 2+, 3+, >3+	Negative, Trace, Small, Moderate, Large
Protein	Negative, Trace, 30, 100, 300, 600, >600	Negative, Trace, 15, 30, 100, \geq 300, \geq 1000, \geq 2000
Urobilinogen	Negative, Positive	0.2, 1, 2, 4, \geq 8.0
Epithelial Cells	Individual Epithelial Cell type (Squamous, Transitional and Renal) quantified	<u>Total Epithelial Cells (Squamous, Columnar, Transitional and Renal) quantified together.</u> *Columnar, Transitional and Renal tubular cells individually reported as “Present” if seen in microscopy **If Columnar or Transitional or Renal tubular cells are not individually reported as “Present” then Total Epithelial Cell = Squamous Epithelial Cell
Casts	Individual Cast type (RBC, WBC, Granular and Waxy) quantified	<u>Total Casts (Hyaline, Fatty, RBC, WBC, Granular, Broad and Waxy) quantified together.</u> *RBC, WBC, Granular and Waxy individually reported as “Present” if seen in microscopy **If Fatty or RBC or WBC or Granular or Broad or Waxy casts are not individually reported as “Present” then Total Cast = Hyaline Cast
RBC	Reported only if seen	Always reported
WBC	Reported only if seen	Always reported
Bacteria	Reported only if seen	Always reported
Cholesterol & Ammonium biurate crystal	Not reported	Reported if seen

Q & A

Many people have had questions and concerns upon hearing we have changed blood suppliers to American Red Cross (ARC) from the Blood Bank of Delmarva (BBD). Here are some common questions people have asked.

Q: WHO IS OUR NEW BLOOD SUPPLIER?

A: The American Red Cross (ARC).

Q: WHY DID WE SWITCH TO A NEW BLOOD SUPPLIER?

A: ChristianaCare was unable to negotiate a mutually agreeable blood contract renewal with Blood Bank of Delmarva (a subsidiary of New York Blood Center Enterprises). Meanwhile, the American Red Cross was able to offer ChristianaCare a more expansive product/service menu at a more reasonable cost.

Q: HOW LONG DID IT TAKE TO CHOOSE ANOTHER BLOOD SUPPLIER?

A: An extensive Request for Proposal (RFP) process was undertaken for this new blood contract which took nearly two years to finalize. A great deal of work and consideration went into making a final decision to change blood suppliers.

Q: WILL THE CHANGE IN BLOOD SUPPLIER AFFECT ABILITY TO GET BLOOD AT CRITICAL TIMES?

A: Par levels for most blood products on each hospital campus have remained similar following the blood supplier switch. A few minor tweaks have been made to accommodate the fact that order fulfillment will require more time than what we have historically been accustomed to; given there is greater distance between ChristianaCare facilities and ARC.

Q: THERE HAVE BEEN SOME PLATELET SHORTAGES RECENTLY, WILL THIS CONTINUE TO HAPPEN WITH OUR NEW BLOOD SUPPLIER?

A: All blood suppliers go through shortages during certain times of the year. Holidays, inclement weather, and cold/flu season often negatively impact blood supplies. Given the American Red Cross is a large national supplier and the fact that platelets are only viable for a very short period of time (5 days from date of collection), we may experience inventory 'concerns' more frequently going forward than we have historically. However, ARC has already proven it can successfully manage such times through its internal production planning and resource sharing capabilities. During recent short-lived platelet shortages, ARC was able to ensure ChristianaCare had platelets available to meet emergent patient care needs.

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

[Laboratory Q&A Submission Form](#)