

REAL-TIME PCR TESTING NOW AVAILABLE AT ST. LUKE'S LAB

By Krista Warren, MD

St. Luke's Laboratory is proud to introduce real-time PCR (Polymerase Chain Reaction) testing, using the Cepheid GeneXpert high tech molecular diagnostic system. GeneXpert, a fully automated system, allows for extraction of nucleic acids, amplification by PCR and detection of the desired target all in the same testing cartridge, without the need for a separate "clean" room or lengthy wait times for results.

Samples can be tested when they arrive in the lab, 24 hours a day, seven days a week, with final results available within hours. The first clinical test performed on the Cepheid GeneXpert is detection of the Clostridium difficile toxin, which is responsible for debilitating diarrheal illness. Other tests pertinent to infectious disease are being validated in the Lab, including detection of MRSA (Methicillin Resistant Staphylococcus Aureus). Also, the GeneXpert has the potential for use not just in the arena of infectious disease, but also for diagnosis of leukemia/lymphoma and coagulation disorders. The future diagnostic potential of real-time PCR in the local clinical Lab is truly extraordinary, and St. Luke's Lab is excited to lead the way in the Northland.

Krista Warren, MD, Microbiology Medical Director (left), and Deb Fischer, MT(ASCP), Microbiology Technical Specialist, show off the GeneXpert.

CLOSTRIDIUM DIFFICILE TOXIN METHOD CHANGE

Effective 1/15/10, St. Luke's Laboratory upgraded Clostridium difficile toxin methodology. Cepheid's Xpert C. difficile assay is a qualitative, in vitro diagnostic test for rapid detection of toxin B gene sequences from unformed stool specimens.

Advantages of upgrading to PCR methodology:

Shorter Turn Around Time: As of February 1, this test will be offered 24/7 with a TAT of one hour from receipt in the laboratory.

Superior Test Accuracy: Literature claims sensitivity of the Cepheid Xpert assay is 94% vs. 48% for the formerly used EIA methodology.

If you have questions, please contact **K. Warren, MD, Microbiology Medical Director**, (218)249-6914 or **Deborah Fischer, MT(ASCP), Microbiology Technical Specialist**, (218) 249-2479.



LACTOFERRIN, STOOL METHODOLOGY CHANGE

Effective 12/22/09, St. Luke's laboratory began using a rapid qualitative test (LEUKO EZ VUE) to detect elevated lactoferrin as a marker for fecal leukocytes and an indicator of intestinal inflammation.

This test detects lactoferrin in liquid, semi-solid and solid fecal specimen. Fecal lactoferrin six day stability is more accommodating to the patient than methylene blue. We will no longer perform the stool WBC methylene blue stain.

hsCRP TEST METHODOLOGY CHANGE

Effective 12/22/09, St. Luke's Laboratory began performing "high sensitivity" CRP testing (hsCRP), as a means to assess risk of cardiovascular disease or events. This assay demonstrates a ten-fold increase in sensitivity over the original CRP assay. At this time, we also changed the units of reporting the original CRP from mg/dL to mg/L to keep us in agreement with standard laboratory practice.

New hsCRP Reference Range performed by St. Luke's Laboratory

Standard Risk: 0.0 – 3.0 mg/L

High Risk: >3.0 mg/L

New Units of Reporting CRP performed by St. Luke's Laboratory

Reference Range: 0.0 – 5.0 mg/L

LIPASE TEST METHODOLOGY CHANGE

Effective 1/25/10, St. Luke's Laboratory began utilizing a new Lipase reagent. Results will be more consistent across a wider reporting range. The accompanying reference range will change slightly.

New Lipase reference interval: 73–393 U/L.

Old Lipase reference interval: 114-286 U/L

NEW VANCOMYCIN TROUGH THERAPEUTIC RANGE, EFFECTIVE 2/1/10

New Vancomycin Trough Therapeutic Level:
10-15 mcg/mL.

Old Vancomycin Trough therapeutic Level:
5-0 mcg/mL

If you have questions, contact:

K. Baer, MD, Chemistry Medical Director:
(218) 249-5751

or

Mike Miller, MT (ASCP), Technical Specialist,
(218) 249-5207

FOR MORE INFORMATION

For further detail on each of these new tests, refer to **St. Luke's Laboratory Services Web page**, which contains detailed New Test Announcements.

<http://www.slhduluth.com/hospital/laboratory-services/>

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