



Lab Update



LABORATORY PHONE 585-LABS

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LabUpdate is a periodic publication of the Clinical Laboratory of UC Health. By way of this publication, lab users are provided: 1) updated operational information relevant to the practice of laboratory medicine within UC Health facilities, and 2) didactic material generally applicable to laboratory medicine.

Molecular Diagnostics***Clostridium difficile* Testing on Ostomy Specimens**

UC Health Laboratory is instituting a new protocol for testing ostomy specimens for *Clostridium difficile*. Stool samples for *C. difficile* submitted to the laboratory are tested using a nucleic acid amplification test or NAAT. NAAT assays are preferred for *C. difficile* because of their high sensitivity and rapid turnaround time. However, none of the NAAT assays for *C. difficile* currently on the market are FDA-approved for ostomy specimens. In order to provide the most sensitive test with the best turnaround time for our ostomy patients suspected of having *C. difficile* diarrhea, the Microbiology and Molecular Laboratory will be working with UC Health physicians to validate the NAAT test on ileostomy and colostomy specimens.

A new test has been built in EPIC to expedite testing of these specimens:

LAB1907**C Diff Ostomy Spec with Reflex to Culture**

Acceptable specimen types for this test are ileostomy (used for any specimen from the small bowel) or colostomy. The specimen should be submitted in two white stool vials. In the laboratory, one portion will be sent to a reference laboratory for tissue-culture based detection of *C. difficile* toxin; this test has been validated for ostomy specimens, but has a 3 – 4 day turnaround time. In parallel, the specimen will be tested at UCMC using the NAAT assay used for stool; this duplicate testing will be performed at no charge. The NAAT will be reported within 24 hours, with a disclaimer that states “Please review results critically. The *C. difficile* DNA assay has not been validated for ostomy specimens. Infectious Diseases consultation is suggested for positive patients.”

The consult recommendation is based upon questions that may arise if *C. difficile*, which causes disease in the colon, is found in the small bowel. Based on preliminary results, the Molecular Laboratory anticipates that more ostomy specimens may yield “Invalid” results than what is usually encountered with stool specimens. In this case, an “Invalid” result is reported when a specimen repeatedly fails to amplify the internal control; this is usually due to the presence of amplification inhibitors in the specimens.

By using this two-pronged testing approach, the lab hopes to provide an initial result as quickly as possible, while using the toxin detection test as the definitive assay. Collection of duplicate results will allow the laboratory to monitor the performance of the NAAT assay. The ultimate goal is to validate the NAAT test for ostomy specimens for UC Health patients.

Please contact Dr. Rhodes at 584-3923 or Microbiology and Molecular Diagnostics Laboratory at 584-3913 with questions.

Medical Laboratory Professionals Week April 19-April 24, 2015

Last week marked the annual celebration of laboratory professionals across the nation. We would like to thank each of our staff for their contributions in providing our patients and physicians with quality laboratory data. Laboratory staff consists of Phlebotomist, Technician Associates, Medical Lab Technicians, Medical Technologist and Outreach Client Service Representatives here at UCMC, at Drake Center, at West Chester Hospital and at draw sites across the region.

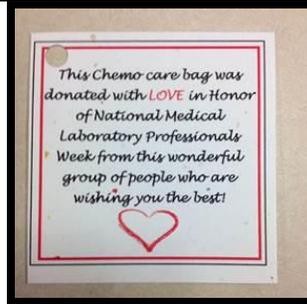
In 2014, our health system reported out nearly 22 million results, collected specimens on nearly 30,000 patients and reported over 30,000 critical results. Our services now extend across our region in 20 draw sites from Florence to West Chester and Milford to Tri County. Add to that an amazing CAP inspection with minimal deficiencies and you come away with a top-notch laboratory team.

There are approximately 300,000 practitioners of clinical laboratory science in the United States and we employ over 250 of the best. Since the development of this career group in the 1920s, the clinical laboratory science professional has played an increasingly vital role in the diagnosis and prevention of disease.

Lab Week Give Back Chemo Care Bag donations

As part of Lab Week festivities, a Give Back to our patients fundraiser was held. Associates in Lab Medicine raised close to \$1000 to create "Chemo Care Bags" for patients receiving infusion at the Barrett Cancer Center. The money raised was used to purchase 25 draw string back packs filled with care items to make the patients time during infusion a little more comfortable. The bags were filled with warm socks, lotion, puzzle books, note pads, hard candies, tissues, gum, playing cards and other small items.

The bags were donated to patients receiving Infusion therapy on Monday April 27th. Many thanks to all of the laboratory staff who donated as well as Patient Relations and the Print Shop for their donations.



Chemistry Changes to Chemistry Reference Ranges Effective May 5th, 2015

Some Chemistry reference ranges will be changing to reflect changes in our Chemistry platform change that occurred January 12th, 2015. The reference ranges that will be affected are listed below:

ANALYTE	CURRENT	EFFECTIVE 5/5/15	UNITS
LDH	140-271	110-270	U/L
ALK PHOS	34-104	36-125	U/L
LIPASE	11-82	4-82	U/L
BILI, TOTAL (adult)	0.3-1.2	0.0-1.5	mg/dL
BILI, DIRECT	0.03-0.18	0.0-0.4	mg/dL
BILI, INDIRECT	0.20-0.70	0.0-1.1	mg/dL
MAGNESIUM	1.9-2.7	1.5-2.5	mg/dL
AMYLASE	29-103	16-117	U/L
CO2	21-31	21-33	mmol/L
PHOSPHORUS	2.5-5.0	2.1-4.7	mg/dL
FREE T3	2.5-3.9	2.0-3.6	pg/nL
T3 TOTAL	0.87-1.78	0.6-2.2	ng/mL
T4 TOTAL	6.09-12.23	4.6-11.5	ug/dL

If you have any questions or concerns regarding this change, please contact Cate Cronin (584-5027) or Angela Heinz (584-1617) in the Clinical Laboratory.