



Lab Update



LABORATORY PHONE 585-LABS

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In this issue:**CAP Accreditation Inspection**

- A Successful System Wide Inspection

Chemistry

- Changes to Reference Ranges

Toxicology

- Urine Drug Testing

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.

CAP Regulatory Inspection UC Health Labs receive reaccreditation

UC Health Laboratory and the UC COM Department of Pathology achieved reaccreditation from its' regulatory agency, CAP, in March 2015. It was an impressive performance by any standard, and particularly so given the size and scope of our services to UC Health and the UC College of Medicine's programs.

It has been a busy time these past two years since our last CAP inspection as the labs of UC Health have grown their operation through addition to test offerings, development of new programs, significant progress in upgrading instrumentation and extending the reach beyond hospitals into physician offices of UC Physicians.

The hard work and dedication of the Laboratory Staff is recognized by the caregivers we serve, the administrators with whom we work, the academic mission of the College of Medicine and School of Allied Health Sciences and the College of American Pathologists.

The Laboratory was inspected based on checklist requirements that are standardized across all CAP accredited labs in the country. Each testing area of the laboratory is subject to its own checklist of requirements and the laboratories of UC Health were required to meet over 2000 standards.

These checklists cover, but are not limited to:

- 1) Management
- 2) Personnel
- 3) Specimen Collection
- 4) Laboratory Information Systems
- 5) Inventory control
- 6) Safety
- 7) Quality Management
- 8) Quality Control
- 9) Proficiency Testing
- 10) Reagents
- 11) Test Method Validation
- 12) Reference Intervals
- 13) Procedure Management
- 14) Critical Values

The accreditation will remain in effect through April 2017 for UCMC Core Laboratory, UC Department of Pathology, West Chester, Drake, Drake LTAC and the satellite laboratories in the Emergency Department, Barrett Cancer Center and Varsity Village on UC campus.



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
LIPASE	11-82	4-82	U/L
MAGNESIUM	1.9-2.7	1.5-2.5	mg/dL
AMYLASE	29-103	16-117	U/L
CK	30-233	16-577	U/L
LACTATE	.5-2.2	.5-4.5	mmol/L
PHOSPHORUS	2.5-5.0	2.1-4.7	mg/dL
DIRECT BILI	0.03-0.18	0.0-0.4	mg/dL
TOTAL BILI	0.3-1.2	0.0-1.5	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.

Toxicology
Urine Drug Testing

Urine drug testing performed by UC Health Laboratory is offered in two ways – 1) as a urine drug screen and 2) as a definitive comprehensive drug panel that includes both a screen and a confirmation. There are advantages and disadvantages associated with each.

The screening test, based on immunologic principles, is very rapid, but is associated both with false positive (5-10%) and false negative (5%) results. The screening test This screening test has cross reactivities between different parent compounds and metabolites is far more subjective in interpretation of results and uses relatively high cutoff values for drugs. As a consequence, clinical decision making should be made with caution. Screening test results must be interpreted with significant clinical correlation.

In contrast, the definitive comprehensive test that includes both a screen and confirmation is performed by the gold standard methodology of liquid chromatography/mass spectrometry (LC/MS). This analysis clearly distinguishes drugs of different classes as well as their metabolites, it is far more objective, and the level of sensitivity is substantially lower than any screening test. Additionally, it can test far more compounds than the typical screening test. It may be used either to confirm a presumptive screening result, or it may be used as the first line of testing. The disadvantage of LC/MS is that it can take up to 48 hours to perform in our current laboratory configuration.

EPIC Codes

SCREEN ONLY

- Urine Drug Screen without Confirmation, Stat
LAB3379

SCREEN AND CONFIRMATION

- Urine Drug Screen Comprehensive Panel, Screen/Confirmation
LAB3324
- Urine Drug Screen Neonatal Abstinence Syndrome, Screen/Confirmation
LAB6063