

Pennsylvania Department of Health Bureau of Laboratories Updates

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DIVISION OF LABORATORY IMPROVEMENT

Supervisor Appointment in the Laboratory Examiner Section

We are pleased to announce the appointment of Melissa Sealie as the supervisor in the Laboratory Examiner Section, Division of Laboratory Improvement. Melissa has an A.S. in Medical Laboratory Technology from Reading Area Community College, a B.S. in Forensic Science from Alvernia College and an Executive Medical MBA from Alvernia College. Her laboratory career started at Reading Hospital as the Emergency Room Diagnostic Tech. She moved on to St. Joseph's Medical Center, in Reading, PA and was assistant manager of the Specimen Processing Department for eight years. She did generalist work in Chemistry, Microbiology, Urinalysis, Hematology and Coagulation. She has worked as a part-time Deputy Coroner for Berks County since May of 2004. Her work at the Bureau of Laboratories started in May 2006, in Bacteriology, and she moved on to the Laboratory Examiner Section in April 2007. Melissa has three children, and two grandchildren, and resides in Reading, PA.

BMBL Safety Note

Everything you need to know about microbiological laboratory safety, at your finger tips.

The Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition is now available online at <http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm>.

DIVISION OF CLINICAL MICROBIOLOGY

Renown Parasitologist Retires

Mr. Alfred L. Logan III has been employed by the PA Department of Health Bureau of Laboratories since September 1967. Alfred started his career in the water testing laboratory and proceeded to Enteric and General Bacteriology Laboratory. In 1970, he started his career in parasitology. He has been the expert in this area of science for the Bureau of Laboratories and has been serving the Commonwealth of PA with classic diagnostic parasitology for 37 years. Alfred has also published several scientific papers in the Journal of Clinical Microbiology. His widely known expertise in the field of parasitology is invaluable and irreplaceable. In 1990, Alfred started his career in diagnostic Mycobacteriology. His work in this area has provided the Commonwealth of Pennsylvania with

support for TB control, therapy, and work towards the elimination of M. tuberculosis. Alfred has been an educator of clinical science by being part of many training sessions, providing laboratories with proficiency testing for parasitology and educational sessions for the Pennsylvania state and county TB nurses.

The Bureau of Laboratory appreciates the wealth of knowledge in these sciences that Alfred has used to contribute to the service of the citizens of the Commonwealth of Pennsylvania. Alfred will be solely missed by his coworkers and customers of the Bureau of Laboratories.

2006-2007 PA Influenza Virus Summary

The BOL tested 475 specimens for Influenza virus. 246 were typed as Influenza/A and 106 as Influenza/B. Of the Influenza/A isolates, 123 sub-typed as Influenza/A H1 and 122 as Influenza/A H3. One isolate could not be sub-typed by PCR as H1, H3, H5, or H7. It has been submitted to CDC for additional testing. Of the Influenza/B isolates, 31 were Malaysia-like and 11 Shanghai-like based on serotyping with WHO reference antisera. Sixty-four isolates were Influenza/B by PCR but could not be sub-typed with WHO reference antisera. CDC has identified most of those as Influenza/B/Ohio/01-2005-like (which is Malaysia-like by the WHO kit). Seven non-influenza respiratory viruses were identified: 3 Adenovirus, 1 Parainfluenza type 1, 2 Parainfluenza type 3, and 1 Respiratory Syncytial Virus. One sample had a viral co-infection: Influenza B/Malaysia-like plus Parainfluenza type 1.

Mycobacteriology Update

The Bureau of Laboratories (BOL) will be adding amikacin to the secondary drug panel in the spring of 2007. Secondary drug panel contains capreomycin, cycloserine, ethionamide, streptomycin (critical and higher concentration), ofloxacin, kanamycin and amikacin. The secondary drug panel is automatically tested when there is any resistance in the primary panel which includes isoniazid (critical and higher concentration), ethambutol, rifampin and pyrazinamide.

Due to budgetary constraints the BOL must curtail multiple submissions on the same patient. The BOL will not test additional specimens with MTBC probes within 2 weeks of the collection date of a positive MTBC probe. This referral is based on microscopic characteristics and will read "Growth consistent with M. tuberculosis complex, refer susceptibilities"

The BOL will be changing the Mycobacteriology fluorescent microscopy reporting. We will be reporting a quantitative numerical value. See the following interpretive chart below.

No acid fast bacilli seen: 0/150 fields
Report actual # seen: 1-3 organisms/ 150 fields
1+ AFB: 4 -36 bacilli /100 fields
2+ AFB: 4 -36 bacilli/10 fields
3+ AFB: 4 -36 bacilli/field
4+ AFB: >36 bacilli/field

Parasitology Update

As of June 15, the BOL will discontinue classical parasitology work due to the retirement of the microbiologist with expertise in this field. Blood and stool specimens for parasitology will be sent to CDC for testing. After that date, please submit CDC's form along with your specimen for testing, and we will forward it to CDC for testing. Information on requirements and submission of specimens is on CDC's website at <http://www.dpd.cdc.gov/dpdx/>.

For further information, please contact Lisa Dettinger at 610-280-3464 or ldettinger@state.pa.us, if you have any questions regarding this matter.

West Nile Virus (WNV) Update

The BOL reported the Commonwealth's first WNV positive mosquito pool in June. More information is available at the Commonwealth of Pennsylvania's main WNV website:

<http://www.westnile.state.pa.us>

For information on human WNV please access the PA Department of Health' WNV information page at:

<http://www.dsf.health.state.pa.us/health/site/default.asp>

Then click "Health Topics A-Z"

Then click "West Nile Virus"

The PA Department of Health' WNV information page can also be accessed via the "Division of Clinical Microbiology" page of the BOL website.

DIVISION OF CHEMISTRY AND TOXICOLOGY

Responding to a Chemical Emergency

A CD titled "Responding to a Chemical Emergency: Collection and Handling of Clinical Specimens" was sent to all hospital laboratory and Emergency Department directors in June. The CD provides information about assisting our Bureau and the CDC to respond to emergencies involving hazardous chemicals.

A chemical emergency could involve hundreds of victims or only a few people. Incidents can involve the accidental release of chemicals or deliberate terrorist acts. Rapid toxic substance testing, available through the Centers for Disease Control and Prevention (CDC), can very quickly screen for 150 toxic materials. If a chemical emergency occurs, please notify the Bureau of Laboratories immediately. We will assist you in selecting and packaging the specimens and will forward specimens for rapid toxic substance screening to CDC.

Rapid toxic substance testing at CDC will be applied to the first 40 specimens from among those which you have collected. If you submit additional specimens, they will be analyzed at our Bureau for the same substances as the CDC screen.

If you have any questions about this process, please feel free to call the Bureau's Chemical Terrorism Laboratory Coordinator, Larry Lampietro, at 610 280-3464, x 3244

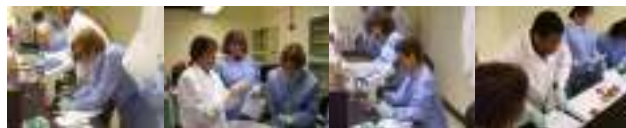
News from Pediatric Biochemistry Section

The Environmental Lead (Pb) Analysis Unit of the Pediatric Biochemistry Section is excited to announce the commissioning of a new Perkin Elmer Optima 2100DV Inductively Coupled Plasma-Optical Emission Spectrometer ICP-OES. This instrument replaces an acetylene Flame AAS (Atomic Absorption Spectrophotometer), and is used for the determination of lead in dust, soil, and paint chip samples. The ICP-OES has a lower method detection limit for lead, improved accuracy, and better precision. It can also be operated unattended allowing higher sample throughput and freeing the operator to perform other tasks.

Earlier this year the Environmental Lead Analysis Unit completed ISO 17025 training and worked diligently to validate the ICP-OES method, and prepare for an on-site audit by the American Association for Laboratory Accreditation (A2LA). The team recently achieved A2LA accreditation for ICP-OES environmental lead analysis and now utilizes this procedure on a routine basis.

A poster session entitled, "Environmental Lead Analysis: Comparison of ICP-OES vs. Flame AAS" was presented at the American Chemical Society 39th Mid-Atlantic Regional Meeting (MARM) held at Ursinus College (Collegeville, PA) in mid-May. The BOL co-authors included Thomas Buszta, Christopher Andrychowski, Amy Hackman, Ona Adair, Barbara Kendro, and Dr. Jeffery Shoemaker.

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Visit our website at: www.health.state.pa.us/labs

This and all future updates will be available on-line at the above website. If you wish to have future updates e-mailed to your facility, please contact with Vincent Lan by following e-mail address with your request: vlan@state.pa.us.

The most recent copy of future Updates will accompany all mailings that the Bureau distributes.

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