



METHODIST HOSPITAL PATHOLOGY NEWSLETTER



IONIZED CALCIUM COLLECTION

By Angela Muggeo

Technical Coordinator, Core lab

Recent research regarding ionized calcium testing has led to a few important pre-analytical variables. Ionized calcium specimens must be collected following at least a four-hour fast. Eating a meal is reported to temporarily decrease the ionized calcium value by as much as 5.4%. Several factors can play a role in causing this decrease:

- An increase in pH
- An increase in protein concentration
- An increase in bicarbonate and phosphate concentrations.

These factors all contribute to increased formation of calcium complexes with albumin and other anions, and therefore decreased ionized calcium.

Ionized calcium is reportedly not affected by stasis up to three minutes, although

significant changes occur with forearm exercise once the tourniquet is in place. If the tourniquet is removed before completely filling the collection device, the ionized calcium will also be significantly affected. Both these incidents will result in increased ionized calcium.

When collecting a specimen for ionized calcium:

- The patient should be fasting for at least four hours.
- The patient should NOT make a fist.
- The tourniquet must remain in place until all of the tubes are filled.
- The tube must be full and kept tightly sealed until testing.

The SST tube is stable spun and UNOPENED for four hours at room temperature and 72 hours refrigerated.

The pre-analytical process is critical to give the most accurate results possible.

TEST UPDATE

TESTOSTERONE

When a testosterone is ordered on a female or child (including males under 14 years of age) the test is sent to ARUP. The recommended methodology for these specimens is tandem mass

spectrometry because of the improved sensitivity. The Pathology Center's methodology is immunoassay and is satisfactory for adult male only. If you order in Powerchart or ePathLink, please select the correct test to avoid delay in testing. The ARUP test number for Testosterone, Female or Chil-

dren is 0081058. Other ARUP testosterone orderable's are:

Testosterone, Free & Total (includes Sex Hormone Binding Globulin)

Female or Children—0081056

Males—0070109

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“ They say time changes things, but actually you have to change them yourself”

Andy Warhol



HOW TO AVOID MISLABELING SPECIMENS

By Alan M Lembitz, M.D.
VP of Risk Management COPIC Insurance

COPIC continues to see incidents and claims that occur due to a mislabeled specimen. This is particularly a problem when multiple similar specimens are collected from different patients in close proximity.

Tragically, there may be no awareness of the discrepancy until a completely normal prostate is removed from a patient with a “worrisome” biopsy or a patient has the wrong skin lesion excised due to a mislabeled site. In the meantime, the actual worrisome site progress or the correct patient with the worrisome biopsy must be located to have definitive therapy.

Following is COPIC’s risk management advice in this setting:

Be alert to clues of possible mislabeling. Is there a significantly different finding on the pathologist report than was expected? Attempt to correlate the report with what was seen clinically. Provide the Pathologist with adequate clinical information that

may also help identify a discrepancy. For example, a suspicious pigmented skin lesion is seen clinically, but the pathology report is inconsistent with this microscopically. Another example is a breast biopsy with significant calcifications with a normal microscopic appearance. Furthermore, if the lesion is designated as a “punch biopsy” or a “shave biopsy” or an “excision,” then the gross description of pathological material on the reported should correspond.

- Institutions should consider implementing a standardized approach similar to a “sign your site” program used to prevent wrong side/wrong site surgery. This approach should entail more than one observer accurately identifying the patient and the site of the specimen and verifying the timely and accurate labeling of that specimen.
- Pathologists should have a standardized system of labeling and processing material, and this system should be known and prac-

ticed by all who handle a specimen, including technologists and support staff.

- Specimens from more than one patient should not be in the same examination or operating room at the same time.
- If mislabeling is suspected, there are resource, including DNA analysis, to correctly identify specimens prior to initiating definitive treatment.

Relying on one individual to perfectly process all specimens will often lead to unfortunate system errors and injury. Having others observe the process will help prevent errors as well as help identify solutions should an error occur.

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RETIREMENT

Forty-Three Years and a Career

Marilyn Thomsen retired from The Pathology Center on December 29, 2005. Her career included working in most areas of the laboratory before moving to management in 1974. She witnessed changes from pregnancy testing with live frogs, urinalysis that re-



quired a rack of test tubes, and glass bottles of whole blood for transfusion. A Single channel Auto-Analyzer and a Coulter A for blood counts was the extent of automation when she began her career.

She notes working with many

people as a highlight of her career. Those people include all the past and present employees in Pathology and the many clients. A sometimes presenter at the spring and fall workshops, she concentrated on management and QA topics. She enjoyed getting to know our clients on a personal level at the workshop dinner.

Our best wishes for a satisfying retirement



HEMATOLOGY IN THE NEWS

In February 2005, Barb Flynn, MT (ASCP) SH, Technical Coordinator of hematology and Jacque Kester MT (ASCP) Laboratory Operations Manager, began a FDA study on our hematology analyzers to validate cell counts on body fluid. The Sysmex XE-Alpha and the XT-1800 were used in the study. To complete the FDA study, it took literally hundreds of body fluid samples from multiple sites to capture the data required to show equivalency between the two

analyzers. Imagine the difficulty in finding spinal fluid samples with RBC down to 50 cells and WBC counts in the thousands. Barb and Jacque presented the information from the study at a Sysmex Symposium in Las Vegas in November.

The hematology lab runs about 350 CBCs per day on the Sysmex analyzers and has now added the ability to do body fluids as well. Barb says they do about 4 –5 body fluid counts per day. The body fluid cell count

can be performed on the analyzer in a matter of a few minutes as compared to 15 –20 minutes by the manual method.

Sysmex has asked us to participate in another study. This time on a brand new hematology instrument called the XS. The XS has the same technology as the larger Sysmex XE and XT but in a smaller package that will be marketed for use in doctor's offices. We are one of 3 labs to collect and analyze data for this new instrument. Sysmex expect to finish data collection early this year for submission to the FDA for approval sometime this summer.

NEW BLOOD CULTURE INSTRUMENT

A new blood culture instrument, BacT/ALERT® from bioMerieux, is being installed in Microbiology this week. The Microbiology department plans to have the instrument ready for use in mid February.

The collection bottles will change with the new instrumentation so we will monitor the supply that we send to your facility for the next

few weeks. The new bottles are plastic and will prevent potential biohazard exposure and glass cuts. The new bottles have a different neck and will require an adapter for use with multi draw systems.

Watch for Technical Bulletins and additional information in the following weeks.



REMINDERS

We must have the complete patient information to bill the insurance correctly. Please take a moment to insure that the following information accompanies the requisition

- Patients **LEGAL** name. Not Joe when his legal name is Joseph.
- Date of birth
- Current billing address

- Specific insurance information with the group number, group name and policy number.
- Complete guarantor information if it is different than the patient.
- An ICD-9 code or complete narrative description for each test ordered.

The billing office would prefer to have a copy of the insurance card attached or a patient data sheet from your facility that contains all the patient demographics. Incorrect or in-

complete billing information delays payment and in some cases extra charges to the patient.

It is a requirement of the laboratory accrediting agency and JCAHO that tubes and containers be labeled with two unique identifiers. **ALWAYS INCLUDE THE PATIENTS FULL NAME AND DATE OF BIRTH ON EACH TUBE OR CONTAINER SENT TO OUR LABORATORY.**

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Visit us on the web at
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You can order supplies, access our
Newsletter, Technical Bulletins
and Microbiology Briefs.

There is a weekly update of the
Microbiology isolates under Tech-
nical Bulletins/Microbiology
Briefs.

Look up test requirements under
the Test Catalog section.

The Methodist Hospital Pathology Center is committed to providing medical professionals comprehensive, cost-efficient and convenient laboratory services. Our Pathology Center specialists work with physician and other health care practitioners in the diagnosis, treatment and monitoring of their patients.

The Pathology Center strives to maintain the highest standards of testing protocols and customer service. Our team of board-certified pathologists and highly skilled professional and technical staff are devoted to serving your needs.



ODDS AND ENDS

CODING GUIDELINES

Each test submitted for insurance payment must include a valid ICD-9 code (diagnosis code) that supports the medical necessity for each test ordered. The coding guidelines for Medicare/Medicaid restrict the use of possible, history of, suspected, rule out or questionable. Code signs or symptoms instead of using these terms.

Pre-op or surgery can not be coded without additional information as to the reason the surgery was performed.. The name of the surgical

procedure is not an adequate explanation. Example: Arthroscopic surgery is not an adequate explanation. We need the reason the arthroscopic surgery was performed.



Medicare has 23 test categories that follow the National Coverage Determinations (NCD). The

NCD's are updated quarterly and can be accessed on the web at www.cms.gov. The NCD guidelines cover ICD-9 codes that Medicare will

accept for the 23 test categories. Please have your staff review these guidelines for medical necessity if we are billing Medicare for you. We do have in-service training available on NCD guidelines.

Always include clinical history information on the Anatomical Pathology requisition. Not only does this help the pathologist working on the specimen but if the tissue report is negative we can use this information to code the claim for billing.

Urine Cytology is a test that is often reported negative and we have to call for additional information.