CompuNet CLINICAL LABORATORIES

QUALITY UPDATE

A monthly publication providing information and updates to CompuNet Clients
Mission: To provide excellence in medical laboratory testing to our community.

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Aspirin Resistance Testing

by Rhonda Thomas, MT(ASCP)
Special Coagulation Team Leader.

Aspirin is a widely prescribed anti-platelet drug to prevent heart attack and stroke and it has been estimated that more than 150,000 heart attacks could be prevented annually by the use of aspirin therapy.

Recent reports by physicians have indicated that a significant number of patients on aspirin therapy have suffered vascular thrombotic events including transient ischemic attacks (TIA), strokes (CVA), acute coronary syndromes and peripheral vascular occlusions. The occurrence of these events in patients on aspirin therapy has result in a proliferation of new investigation by clinical researchers utilizing a variety of lab tests to determine why some patients thrombos while on aspirin therapy. There is an abundance of documented research indicating that some patients have a minimal or reduced response to aspirin therapy. This minimal or reduced response has been defined as "Aspirin Resistance".

Aspirin's effect functions by reducing the production of Thromboxane A_2 (TxA_2) which in turn reduces the ability of platelets to aggregate. Thromboxane A_2 is hydrolyzed in the liver into a number of metabolites. One of these metabolites is 11 –dehydrothromboxane B_2 that is cleared from the circulation by the kidneys and excreted in the urine. The level of Thromboxane B_2 (TxB_2) metabolite in urine is in direct proportion to the inhibition of TxA_2. If there is low TxB_2 present in urine it is representative of aspirin effect. If there are high TxB_2 levels this is equated with no aspirin effect or aspirin resistance.

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In 2002 two published clinical studies evaluated patients at high risk for cardiovascular events. One study used urinary TxB_2 metabolite as the marker for in vivo platelet activation and the second study evaluated "aspirin resistance" utilizing platelet aggregometry. The outcome of both studies demonstrated a greater than 3 times risk of death in those patients not responding to aspirin.

The aspirin resistance assay, Aspirin Work ® performed by CompuNet is an enzyme-linked immunoassay (Elisa) to determine levels of 11-dehydrothromboxane B_2 excreted in human urine. Final results are reported as pg (pictograms) of TxB_2 per mg creatinine to normalize for urine concentration.

Ordering information:

Test Code: 74766 CPT: 82570, 83520

Specimen Requirements: 20 ml urine sample collected at random. Pour 8 ml of collected sample poured into urine preservative tube, and also send remaining urine sample in collection cup. The Urine Transport tube is stable for 24 hours may be transported at Room Temperature. The urine cup is stable for 24 hours when stored refrigerated. Note: The sample must be placed in the urine transport tube within 4 hours of collection.

References Ranges: (Individuals taking Aspirin)

Urine level of TxB_2 = or < 1500 pg/mg creatinine indicates aspirin effect

Urine level of TxB_2 > 1500 pg/mg creatinine indicates lack of aspirin effect.

The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct ay questions regarding coding to the payer being billed.

Patient Safety Update….. Specimen Labeling

by: Kathy Mannier, Compliance/QA Officer

The most important step in the collection process is patient identification. Once the patient has been positively identified and samples collected, labeling the samples is a crucial step in the process.

Improving the specimen labeling process is a 2008 national Patient Safety goal for both the Joint Commission of Accreditation Healthcare Organizations (JCAHO) and the College of American Pathologists (CAP). CompuNet follows standards /recommendations of the Clinical Laboratory Standards Institute (CLSI), CAP and JCAHO when establishing or updating specimen labeling criteria.

Each specimen sent to the laboratory for testing should be clearly labeled with:

- Patient last name and complete first name.
- Do not use "nicknames" on samples.
- Do not use initials
- Name on sample(s) matches name on the requisition—which should match the name listed with third party insurance.
- Each sample (tube, cup, swab, etc.) is identified appropriately

Thank you for continuing to partner with us to provide the best results for your patients.

Contact: Kathy Mannier 937-297-8272 or kathy.k.mannier@questdiagnostics.com

Summer Heat and Specimen Integrity

by: Dave Waldman, Transportation Team Leader

We've all learned to protect ourselves in hot weather by using sunblock and Ultraviolet. sunglasses. But what about those specimens in the lock box?

Uncentrifuged SST™ specimens exposed to heat demonstrate significant changes in the measured values of glucose, phosphorus, LDH, AST and triglycerides. A study by CompuNet demonstrated that the serum glucose level from an uncentrifuged SST tube dropped from 126 mg/dl to as low as 24 mg/dl in specimens left in a lock box for multiple hours on a 92-95 degree summer's day.

Properly centrifuge the SST tubes before placing them in the lock box. The lockbox should be kept inside the office during the day so the internal temperature of the box remains cool until placed outside. If the specimens will remain in the lock box for an extended period of time a cold pack may be placed in the lock box with the specimens. It is imperative that the cold pack be wrapped in newspaper to prevent freezing the specimen(s).

Remember: "The results are only as good as the specimens" still holds true. Proper specimen handling will help assure dependable patient results.

Update on Key Laboratory Legislation

by: Paul Labbe, Vice President of Operations

There is a laboratory competitive bidding demonstration project, that is on temporary hold in the San Diego, California area, due to a lawsuit presented by three independent laboratories in that area. Their argument, which the judge has agreed, is that the "winner take all" approach to the lowest bidder of laboratory services for Medicare patients would not only harm their businesses, but also negatively impact service levels to the people in this community. Because this competitive bidding demonstration project is mandated by law, the only way to effectively stop this process, is to have the law repealed. Otherwise, if the project proceeds it will then advance to additional areas of the U.S.

Clinical laboratory results help clinicians with over 70% of patient diagnosis, and represents less than 2% of the overall Medicare budget expenses.

If you'd like to have your voice heard on laboratory legislation and the impact it has on patient care, the following links will help to direct your letters to the correct senators and representatives in your area:

House Bill (HR 3453):
http://capwiz.com/clma/issues/alert/?alertid=10372476

Senate Bill (S 2099):
http://capwiz.com/clma/issues/alert/?alertid=10372386

Lab Week Winners Announced

Please join us in congratulating: Denise Dyrdek (Dermatopathology Lab of C.S.), Trina Anderson (Caro Pediatric Center), Linda Beaty Montague (Dayton Dialysis Center South), and Michelle Schell (Springfield Urology). Thank you for your participation in the 2008 Lab Week Word Search. Each winner will receive a gift from the CompuNet company store within the next several weeks. ☺

ATTENTION COMPUNET CLIENTS!!

Notice of Fax Number Changes

Effective June 1st 2008 CompuNet's Client Services and Supply Order departments will have new fax numbers.

Client Services 866-206-8387
Supply Orders 866-695-9927