Series: Improving Test Utilization

Chemistry Pearls

As part of our ongoing challenges to improve test utilization at Spectrum Health, we would like to offer the following Chemistry Department testing and ordering “pearls” based on our observations:

- **Often numerous redundant test requests are ordered.** Some common examples are listed below:

  - Running multiple inpatient Comprehensive Metabolic Panels (CMP, 14 tests) within days of each other. Instead, a CMP should be ordered once per admission and then individual analytes to follow abnormalities.
  
  - Individual components of reflex panels ordered with the reflex test itself. Examples would be ordering an anti-ScI70 with an ANA or ordering a T4 with a Thyroid Cascade.
  
  - Hemoglobin A1c tests ordered on in-patients multiple times per admission. Hgb A1c should be run no more often than 120 days.
  
  - Serum protein electrophoresis (SPE) studies ordered within hours or days on the same patient. SPE studies should be ordered as needed based on the patient’s history and clinical presentation. Serial SPE ordering is useful for monitoring response to treatment in patients with known disease.

Before placing new orders, especially panels, please check the patient’s current laboratory test results, as well as existing test orders. For a guideline on reflexes and panels, please visit the online laboratory catalog: spectrumhealth.testcatalog.org. We are constantly striving to reduce patient anemia, improve laboratory test turnaround time and resources and we need your help!

Any questions may be directed to Dr. David Alter, MD, Clinical Pathologist via email at David.Alter@spectrumhealth.org.

Extended RAS Mutation Testing

Spectrum Health Advanced Technology Laboratory - Molecular Diagnostics Department is pleased to announce extended KRAS Mutation Analysis and the addition of NRAS Mutation Analysis which are in response to recent updates in NCCN guidelines.

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Extended RAS Mutation Testing
KRAS Mutation Analysis replaces current KRAS testing of codon 12/13 by Pyrosequencing; KRAS Mutation Analysis will identify codon 12/13 mutations in addition to other mutations. NRAS Mutation Analysis is a new test. Both tests use Ion Torrent Next Generation Sequencing technology to detect frequently occurring mutations in the KRAS and NRAS genes. NCCN Guidelines (Version 3.2014 Colon Cancer) strongly recommend all patients with metastatic colorectal cancer have tumor tissue genotyped for RAS mutations; patients with any known KRAS mutation (exon 2 or non-exon 2) or NRAS mutation should NOT be treated with cetuximab or panitumumab. Strong correlation exists between mutation status in the primary tumor and the metastases. For this reason, extended RAS testing can be performed on archived specimens of either primary tumor or a metastasis. Early establishment of KRAS/NRAS status obtained in a non-time-sensitive manner allows the discussion of the implications of KRAS/NRAS mutations while other treatment options still exist.

A new Cerner orderable, Extended RAS Mutation Analysis, will be available in the near future which will cover both extended KRAS Mutation Analysis and NRAS Mutation Analysis. In the meantime KRAS Mutation Analysis and NRAS Mutation Analysis need to be ordered separately to complete extended RAS testing as recommended by NCCN guidelines.

Urea Breath Test (for H. pylori) – New Pediatric Indication
The Spectrum Health Bradford Laboratory is pleased to announce the BreathTek/POCone by Otsuka is expanding testing options to include pediatric patients, ages 3-17. Please click here for testing information from Otsuka or view it in the laboratory catalog: spectrumhealth.testcatalog.org/show/3013

The patient’s height, weight and date of birth (DOB) are required for the test calculation. These should be visible on the patient’s electronic registration. When applicable, the patient will be asked for the required patient information. If not received, the physician’s office will be notified before the result is input into the patient’s electronic record. The test will result as: “See Comment”. The comment will say:

“Unable to calculate. More information is needed: Patients name, height, weight and date of birth. Please submit needed information within 3 business days by fax (616) 486-0161 or email Nancy.Hickman@spectrumhealth.org.”

Questions may be directed by email to Nancy.Hickman@spectrumhealth.org.

Drug of Abuse – CPT update
Effective October 1, 2014 the Spectrum Health Regional Laboratory Toxicology Department will begin reporting Creatinine as part of the Adulteration Testing included in the Drug of Abuse Screen and the Pain Management Drug of Abuse Screen. It will result in a minor increase to the Drug Screen prices as there is an additional CPT (82570) that must be reported.

Questions may be directed by email to laboratoryservices@spectrumhealth.org.