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## LAB ALERT

**Date:** December 15, 2016

### **Correction: New Test: Male Testosterone Panel Now Offered In-house**

Dear Regional Pathology Services Clients,

On December 5<sup>th</sup> we issued a lab alert on the new Male Testosterone Panel now offered in-house. **We have made some corrections to this lab alert as outlined below:**

- **Added:** Specimen Requirements: Heparanized Plasma (preferred) or Serum. 1.0 mL optimal, 0.5 mL minimum.
- **Corrected:** The recommended Women and Children Testosterone Panel ([TESTOS](#)) that is a sendout does not offer the **measured** fTST, it is a **calculated** value based on a measured TST using LC-MS/MS which is a much more sensitive method.
- **Corrected:** CPT codes for the Male Testosterone Panel ([TSFTST](#)) are only 84403 and 84270. The fTST is a calculated value so no CPT is associated with it.

#### **Below is the complete corrected Lab Alert:**

We are very excited to announce a new male Testosterone Panel that will be offered at the Nebraska Medical Center Laboratories. This will bring in-house tests that were previously sendouts and streamline the testing in a panel. The panel will include **Sex Hormone Binding Globulin (SHBG), Total Testosterone (tTST), Free Testosterone (fTST) and % Free Testosterone (%fTST)**. For women and children we recommend the LC-MS/MS method due to improved sensitivity. Send out test code: TESTOS.

**Serum Hormone Binding Globulin (SHBG)** will be measured by immunoassay on the Beckman Coulter DxI analyzer and the free testosterone (fTST and percent free testosterone (%fTST) will be calculated using the the measured SHBG and Total Testosterone values.

**Overview of the test utility:** SHBG is the carrier of testosterone and estradiol, as well as 17-OH progesterone. Measurement of SHBG is useful in evaluation of androgen status and steroid-related conditions in both in men and women.

The new male testosterone panel will be available 24/7.

**TEST NAME:** Testosterone Panel-Male

**PANEL TEST CODE:** TSFTST

**Specimen Requirements:** Heparinized Plasma (preferred) or Serum. (Green, Red, or Gold stopper tube). 1.0 mL optimal, 0.5 mL minimum.

**Specimen Stability:** Room Temp-stable for 8 hours. Plasma, refrigerated 5 days, frozen up to 2 months. Serum, refrigerated for 7 days, frozen up to 2 months.

**Interfaced Clients:** Please see codes below for the interface build

Male Testosterone panel test code: **TSFTST**

Individual component Name	Individual component code	Result Components	LOINC	CPT Code
Testosterone	TST	TST	2986-8	84403
Sex Hormone Binding globulin	SXHBG	SXHBG	13967-5	84270
Testosterone, Free	TSTFR	TSTFR	2991-8	
%Free Testosterone	PFTST	PFTST		

**\*\*For Women and Children please add test code TESTOS, Testosterone, Free and Total (includes SHBG)**

**Please deactivate the following test codes in your computer interfaces:**

- Testosterone, Free and Total (FTTST)
- Testosterone, Free and Total by LC-MS/MS (TESFT)-sendout
- Sex-hormone binding globulin (SHBG)-sendout. Please replace with SXHBG (In-house test).
- Testosterone, Free (TSTFR)

**Reference Ranges:**

Test Name	Reference Range
SXHBG	Pre-menopausal women: 13-90 nmol/L Post-menopausal women: 18-135 nmol/L Adult men: 17-125 nmol/L
Free Testosterone (fTST)	Adult men: 38 – 311 pg/ml
% Free Testosterone (%fTST)	Adult men: 1.6-2.9%

**NOTE:** As testosterone is bound and carried not only by SHBG, but also by albumin, significant changes in serum albumin concentration may trigger changes in the value of calculated free testosterone. In these cases (e.g. patients with renal diseases, liver diseases, chronic inflammation and malnutrition), the calculated fTST can be corrected to account for albumin concentration. This correction will be available **only upon request and only in justified medical circumstances** (e.g. medical conditions associated with significantly decreased serum albumin concentration). This correction requires **measurement of albumin in the same patient sample submitted for the Testosterone Panel**. Due to sample stability, this correction can **only be performed within five days from sample collection**. If such correction is necessary, please contact the laboratory at 402.559.9113.

If you have any questions or issues with these changes please contact client services at 402-559-6420 and ask to speak with one of the client coordinators.

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**24/7 Client Services      1-800-334-0459**