October 16, 2018

To: Chiefs of Service, Attending Physicians, Housestaff, Nurses and Other Concerned Personnel

From: Kara Lynch, PhD  
Co-Director  
Core Lab, Chemistry/Toxicology

Barbara Haller, MD, PhD  
Director, Clinical Laboratory

Re: New Methodology for Vitamin D (25-hydroxy)

Starting October 18, 2018, the ZSFG Clinical Laboratory will begin using a new methodology for 25-hydroxy Vitamin D testing. The new method is an automated competitive immunoassay, which will allow for improved turnaround times. The new report will give a total Vitamin D result (25-hydroxy Vitamin D2 plus 25-hydroxy Vitamin D3), but will not include the individual values for 25-hydroxy Vitamin D2 or 25-hydroxy Vitamin D3. The new assay does not have a bias toward either form of 25-hydroxy Vitamin D. The new assay showed good correlation for total 25-hydroxy Vitamin D compared to our current liquid-chromatography tandem mass spectrometry methodology.

1. **Specimen Type:** The same specimen will be required: minimum 0.5 mL serum, gold top SST tube preferred (red top also accepted).

2. **Vitamin D target value:** There is no change to the recommended Vitamin D targets. The ZSFG Clinical Laboratory will continue to follow the Endocrine Society Guidelines, which define deficiency as a Vitamin D result below 20 ng/mL, insufficiency as 21-29 ng/mL, and optimal levels as greater than 30 ng/mL. A Vitamin D level of 80 ng/mL is the lowest reported level associated with toxicity in patients without primary hyperthyroidism who have normal renal function, however most patients with toxicity have levels greater than 150 ng/mL.

   Deficiency: < 20 ng/mL
   Insufficiency: 21 - 29 ng/mL
   Optimum Level: 30 - 80 ng/mL
   Possible Toxicity: > 80 ng/mL

3. **Assay interference:** Significant sample hemolysis results in a negative interference with the new 25-hydroxy Vitamin D assay. Results will not be reported for samples with significant hemolysis and a repeat draw will be required to obtain results.

4. Please contact Kara Lynch, PhD, at 415-206-5477 with any questions or concerns. Thank you.