January 12, 2010

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

From: Kara Lynch, PhD, DABCC  ___________
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Alan Wu, PhD, DABCC  ___________
Division Chief, Clinical Chemistry and Toxicology

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Director, Clinical Laboratory

Re: Kappa/Lambda Quantitative Free Light Chains with Ratio

Effective January 18, 2011, the Clinical Laboratory will be offering Kappa/Lambda Quantitative Free Light Chains and ratio analysis in-house using a turbidimetric assay. This testing will no longer be sent to our reference laboratory, ARUP. There will be no changes in test ordering, specimen requirements, turn-around-time or reference/normal ranges for kappa and lambda free light chains, or the ratio.

In method validation studies, the new assay correlated well with the ARUP method; however, in a few patient samples with high kappa and/or lambda values (>10 mg/dL) the new method showed a positive bias. Health care providers who have been serially monitoring their patients using the ARUP method should make note of the first value from the new method and re-base line their patients accordingly.

Testing for monoclonal gammopathy is routinely done by serum and urine electrophoresis and immunofixation. Testing for free kappa and lambda light chains was approved by the FDA in 2001, and has since been integrated into diagnostic and monitoring algorithms for multiple myeloma that are endorsed by both national and international groups. The sensitivity of the free light chain immunoassay allows for more accurate detection of multiple myeloma, light chain multiple myeloma, AL amyloidosis, and B-cell dyscrasias. A negative test does not rule out disease but must be interpreted in the context of serum immunofixation.

For more information about the new method, please refer to the online Clinical Laboratory Manual website (http://labmed.ucsf.edu/sfglab/).

For questions or concerns, please contact Dr. Lynch at 206-5477.