

MEMORANDUM #138

TO: UNCHCS Attending Physicians, Housestaff, Department Heads and Supervisors

FROM: Nichole Korpi-Steiner, PhD, Director, Special Chemistry Laboratory

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SUBJECT: Changes to Serum Protein Electrophoresis Testing

DATE: October 26, 2017

Effective November 6th 2017, serum protein electrophoresis (SPEP) and immunotyping using capillary electrophoresis will be performed using a newer, improved model of our current analyzer.

Impact on patient SPEP testing:

• Reference intervals will not change for total protein, albumin, alpha-1 globulin, alpha-2 globulin, beta-1 globulin, beta-2 globulin, and gamma globulin.

• Patients with paraproteins (M-spikes) previously reported as "too low to accurately quantify" may be reported with quantitative values due to improvements in analytical quantitation using the new analyzer (see table below).

Changes in the M-spike thresholds for quantitation of paraproteins by protein fraction:

| Protein | Previous M-spike quantitation | New M-spike quantitation |
|----------|-------------------------------|--------------------------|
| Fraction | threshold, g/dL | threshold, g/dL |
| Alpha-1 | 2.5 | 0.5 |
| Alpha-2 | 2.5 | 1.1 |
| Beta-1 | 1.3 | 0.6 |
| Beta-2 | 1.3 | 0.6 |
| Gamma | 0.3 | 0.1 |

Please note that quantitative M-spike values reported on or after November 6, 2017 may or may not indicate an actual change in the patient's M-spike level that was previously reported as "too low to accurately quantify".

If you have any questions related to these changes, please contact the Core / Special Chemistry Laboratory at 984-974-1415 or Dr. Korpi-Steiner at 984-974-1498.