

June, 2019

Serum and Urine Protein Electrophoresis (SPE/UPE) and Immunofixation Changes

As of June 12, the Methodist Pathology Center is converting serum and urine protein electrophoresis and immunofixation testing from the Sebia Hydrasys 2 to the Helena SPIFE touch system due to discontinuation of key components of the current instrumentation.

The old and new systems are highly correlated, but the inherent variability between systems will result in the following changes:

- 1) Reference ranges for the fractionated components will change (see table below).
- 2) Quantitative values of serum monoclonal proteins, if present, are expected to be on average 0.3 g/dL higher compared to previous evaluations.
- 3) Some smaller monoclonal proteins that were at or near the limit of quantitation (≤ 0.1 g/dL) may now be insufficient for quantitation by the new method.

Due to the above changes, baselines for patients with monoclonal proteins currently being followed should be adjusted accordingly.

Additionally, all serum and urine protein electrophoresis and immunofixation orders will now include a professional pathology interpretation.

The test order, specimen requirements, and turn-around-time of the test will be unchanged.

Reference Ranges:

	Old g/dL	New g/dL	Old %	New %
Albumin	3.7-6.0	3.4-4.6	60-73 %	51-64 %
Alpha 1	0.2-0.4	0.1-0.4	1-3 %	2-5 %
Alpha 2	0.5-1.1	0.5-0.9	8-13 %	7-14 %
Beta	0.5-1.2	0.8-1.2	8-15 %	12-18 %
Gamma	0.4-1.2	0.6-1.4	6-15 %	10-18%
Total Protein	6.2-8.2	6.2-8.2		

Please direct any questions to Tess Karre, MD, George Bedrnicek, MD or Deb Brungardt, MT(ASCP) at 4-4541 or 1-888-432-8980.