Serum Protein Electrophoresis & Paraprotein identification/ quantification

General information

Additional information is provided under Immunoglobulins IgG, IgA, IgM and Bence Jones protein (Urine Immunofixation).

Specimen transport: At room temperature

Repeat frequency: Initial diagnosis, post treatment. Monitoring for suspected relapse.

Special precautions: Note: Plasma is unsuitable for this test

Laboratory information

Normal reference range: Not applicable

Volume and sample type: 4ml serum

Method: Capillary Zone Electrophoresis and immunofixation

Turnaround time (calendar days from sample receipt to authorised result): Median - 5

Participation in EQA Scheme: UK NEQAS for Monoclonal Protein identification and INSTAND CZE EQA Scheme

Clinical information

Indications for the test: Paraproteinaemia, MGUS, chronic lymphoid malignancy. Serum paraprotein quantitation for monitoring myeloma treatment.

Factors affecting the test: Fibrinogen in plasma samples may show as a false positive monoclonal free lambda. Anticoagulant therapy (containing fibrinogen) should be taken into consideration when interpreting results.
Monoclonal antibody treatments such as daratumumab, vedolizumab and rituximab may appear as a small IgG kappa paraprotein by immunofixation.
Transient monoclonal/oligoclonal bands may be caused by infection or inflammation.
Grossly haemolysed, lipaemic and icteric specimens are unsuitable for testing.

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