



Clinical Practice Change Alert

January 8, 2014

INFORMATION for NON-PHYSICIANS

INTRODUCTION of AUTOMATED ERYTHROCYTE SEDIMENTATION RATE (ESR)

Effective **Monday, January 20, 2014** DSM HSC site will be using the TEST1 automated ESR instrument for erythrocyte sedimentation rate. The change will improve turn around time for results, and provide sustainability for this relatively high volume test.

The new instrument measures ESR using a microagglutination method that assesses the interaction of RBC's with inflammatory plasma proteins, determining the length of sedimentation (capacity of RBC aggregation over time) by optical density.

Test specifications:

Peer-reviewed comparison studies have shown that the microagglutination method correlates better than the Westergren method (manual) with inflammatory protein levels (total protein, globulin, CRP, and α_1 -, α_2 -, β_2 -, and γ -globulin). These findings indicate that ESR measurements by TEST 1 reflect inflammation better than do those by the Westergren method in patients with malignancy, autoimmune disease, or infection. The TEST1 method is not sensitive to hematocrit fluctuations, and to β_1 globulins related to malignancy. Therefore, ESR may not be prolonged in some cases of monoclonal gammopathies and neoplasms.

In general the automated method shows a slight negative bias.

The manual method will still be used as a back-up in the unlikely event of automated instrument downtime.

Reference range: 0 – 10 mm/h <17 y
0 - 15 mm/h male >17 y
0 - 20 mm/h female >17 y

Sample requirements: EDTA whole blood tube, minimum 2 mL

Please contact Dr. Carmen Morales (ph: 204-787-4682) with any questions or concerns

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