



September 18, 2017

## INFORMATION for PHYSICIANS

### AUTOMATED ERYTHROCYTE SEDIMENTATION RATE (ESR)

### for COMMUNITY HOSPITALS

**Date Effective:** Monday, October 2, 2017

**Change in or New Test Procedure:**

Effective **Monday, October 2, 2017** all Community Hospital Sites will be sending ESR tests to Health Sciences Centre for testing. ESR will be performed using the TEST1 automated ESR instrument for erythrocyte sedimentation rate.

**System Improvement:** The change will provide improved clinical quality and sustainability for this test.

**Reference range:** unchanged

**Turn around time:** up to 24 hours

**Sample requirements:** EDTA whole blood tube, minimum 2 mL

**Patient Impact:** No impact

**Test specifications:**

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.

**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  $\alpha_1$ -,  $\alpha_2$ -,  $\beta_2$ -, and  $\gamma$ -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  $\beta_1$  globulins related to malignancy. Therefore, ESR may not be prolonged in some cases of monoclonal gammopathies and neoplasms.

**Resource:** For more information, please see **Change in ESR/CRP Availability:**

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with any questions or concerns