



May 16, 2017

## CHANGE IN ESR/CRP AVAILABILITY

### Effective Immediately

ESR and CRP are “acute phase reactants”. They are elevated when serum proteins related to inflammation are produced.

CRP test measures level of C-reactive protein, one of several proteins produced by the liver during the acute inflammatory phase. It increases quickly, early in the inflammatory process, and also clears quickly as the insult resolves.

ESR test measures RBC sedimentation/aggregation rate. This rate is influenced by plasma proteins, mainly fibrinogen and alpha-globulins. Increase in ESR is affected by many factors besides inflammation (anemias, albumin concentration, immunoglobulins). ESR increases slowly, and it remains elevated longer after the trigger is resolved.

#### **CRP and ESR:**

- Because of their non-specific nature, their diagnostic value is minimal, particularly in an emergency setting. A competent history and physical examination yield much more useful diagnostic information.
- Should not be used as screening tests for disease
- ESR and CRP **may be normal** in serious illnesses, including serious infections, temporal arteritis and autoimmune disease, and malignancies.
- ESR increase lags behind leukocytosis and neutrophilia in acute bacterial infections, and remains elevated after resolution. It contributes little to diagnosis and may direct unnecessary prolongation of therapy.
- ESR **or** CRP are of questionable utility in the initial diagnosis of systemic inflammatory/rheumatic disease, but may be helpful during management/follow up.
- ESR and CRP are often, **but not always**, highly elevated in **temporal arteritis** and in **polymyalgia rheumatica**. **A negative or lower ESR does not exclude these conditions** if findings are supportive. Therefore, the clinical setting must guide management timing over ESR or CRP results.

**ESR and CRP offer similar information. There is no advantage in requesting both. The laboratory will honor one of these requests and cancel the other if both are ordered. Please contact the hematopathologist or biochemist on service to discuss any exception to this.**

**Test availability varies by site. Please check with your local lab which test is more accessible.**

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