



**Memorandum Core #168**

To: UNC Health System Attending Physicians, Housestaff, Nursing Coordinators, Department Heads and Supervisors

From: *SM* Stephanie Mathews, MD, Director, Automated Hematology  
McLendon Clinical Laboratories

*HCU* Herbert C. Whinna, MD, PhD, Medical Director  
McLendon Clinical Laboratories

*MM* Martha McGee, Director, McLendon Clinical Laboratories

Date: April 15, 2021

**Subject: ESR Change in Methodology**

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The UNCCMC Core Laboratory is pleased to announce that a new analyzer, the iSED<sup>®</sup> Erythrocyte Sedimentation Analyzer (iSED), will be implemented for ESR testing effective at 8:30am on Monday, April 19, 2021. The iSED utilizes photometric rheoscopy as its methodology and has been found to have greater than 95% correlation with the Westergren method, which is considered the reference method. The iSED's advanced automation assures improved repeatability by removing external variables such as mixing, vibration, temperature, timing and other factors that introduce imprecision in other methods.

The iSED technology is not affected by hemoglobin/ hematocrit and MCV levels in the same way as the other methodologies, and is less likely to cause false elevations in the ESR result. Therefore, if the ESR is being used to follow the progress of a patient's inflammatory disease, during treatment, there may be some variation from prior results, and the patient may need to have a new baseline established.

Specimen collection for the ESR remains a 13 x 75mm, EDTA blood collection tube (purple top) with a minimum volume of 500 uL.

The reference range for the new method will remain the same as previously reported with one exception:

>50 year male: 0-20

>50 year female: 0-30

18-50 year male: 0-15

18-50 year female: 0-20

>1month to 18 years of age: 0-13\* mm/hr - Every result in this age range will be tagged with the following comment: "Use reference ranges of 0-15 for males/0-20 for females if the adolescent has entered puberty"

If you have any questions please contact Stephanie Mathews via email at [Stephanie.Mathews@unchealth.unc.edu](mailto:Stephanie.Mathews@unchealth.unc.edu) or call the Core Laboratory at (984) 974-2361 and ask to speak with Tina Leonard.