

The ESR, or Erythrocyte Sedimentation Rate (ESRA)

For samples sent to Core Lab for analysis.



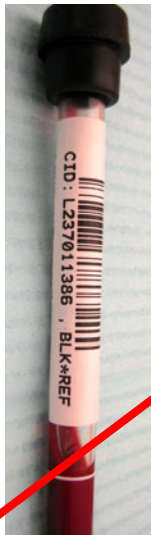
Red blood cells settle to the bottom.

Used in clinical diagnostics since at least 1897,¹ the ESR provides general information about inflammatory conditions. The test measures the rate that red blood cells settle to the bottom of a whole blood sample.²

The ESR testing process is unique; no blood is sampled from the tube. To measure the rate of fall (sedimentation) of the red blood cells, a well-mixed sample is placed in the instrument. Infra red light and a photoelectric cell outside the tube measure the height of the red blood cells.³ A second measurement is taken after 30 minutes of settling, and the decrease in height is calculated by the instrument. The result describes how far the red cells have fallen.

The area from just above the max fill line to the bottom of the tube must be free of anything that could block the light used in the measurement process. Tubes with unsuitable labeling, as shown below, must be corrected before analysis.

Common ESR Labeling Errors



Label covers upper fill line.



Multiple labels cover both fill lines.

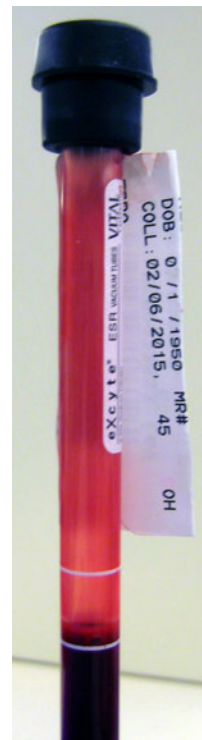


Partially removed label.

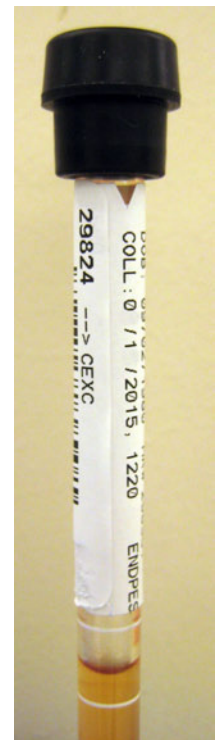


Shared sticker is below upper fill line.

Best ways to Label



Preferred



Acceptable

Place the edge of the label against the black rubber stopper on the top of the tube. Fold label at the notch.

References:

1. Grzybowski A, Sak J. A short history of the discovery of the erythrocyte sedimentation rate. *Int J Lab Hematol.* 2012;34:442–4.
2. ESR: At a Glance - Erythrocyte Sedimentation Rate [Internet]. Lab Tests Online. [cited 2014 Dec 2]. Available from: <http://labtestsonline.org/understanding/analytes/esr/tab/glance/>
3. Excyte Plastic Vacuum Tube Package Insert, L7265, Rev. Current. Vital Diagnostics; 2009.