Internal Quality Control for Erythrocyte Sedimentation Rate Measured by TEST-1 Analyzer

DAVIDE GIAVARINA, SILVANO CAPUZZO, FABRIZIO CAUDURO, MARIAROSA CARTA, GIULIANO SOFFIATI

Clinical Chemistry and Hematology Laboratory, San Bartolo Hospital, Vicenza - Italy

SUMMARY

The TEST 1\textsuperscript{st} is a fully automated analyzer for measurement of the erythrocyte sedimentation rate. This system employs a particular capillary where blood is moved by a special hydrodynamic system. This original method is not able to measure stabilized samples for quality control, probably because stabilized erythrocytes offer a higher resistance to movement into the capillary, giving a distorted sedimentation curve. We evaluated whether the stability of collected EDTA samples, as declared by the producer company, was sufficient to use samples measured the day before as internal quality control samples. We also evaluated whether different tubes could modify the test results between stored and fresh samples. The difference between ESRs measured in fresh and stored samples are non-relevant after 24h and 48h, using both the tubes considered. The agreement between fresh and stored samples was better than that obtained by comparison with the Westergren method and can be used for the internal quality control procedure. (Clin. Lab. 2002;48:459-462)