

YHLO TIMES

NO.Y018010N032

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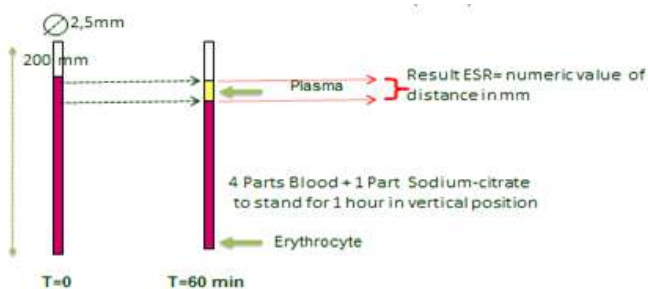
VISION at large



VISION and VISION Pro are based on solid scientific principles. These principles are answering the majority of all questions that may arise. Further, they are presenting the outstanding performance quality of VISION series ESR results.

Definition of Westergren Method

The gold standard for Erythrocyte Sedimentation Rate (ESR) is the Westergren method.



What VISION measures?

There are three phases of what is commonly known as Sedimentation:

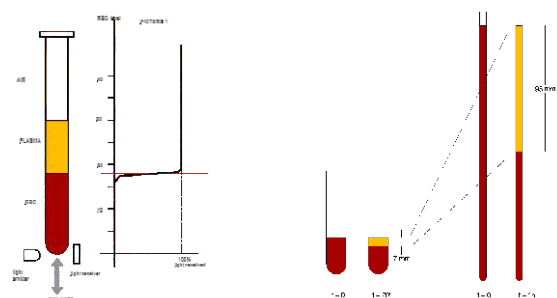
- Aggregation: is a two-step process, first RBC associates to form chains (rouleaux), next these chains form spheres of homogeneous size. During this phase there is no sedimentation.
- Sedimentation of the spheres of RBCs at a constant rate
- Packing: rate levels off to zero: sedimentation is completed

ESR systems claim that it is possible to provide the ESR result from just the detection of the aggregation of red cells other than measuring ESR.

VISION meets the challenge, better than competitors

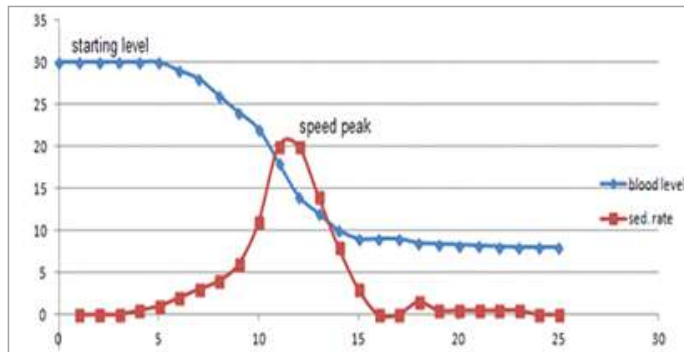
How to relate short sedimentation level that is in the EDTA tube with the high sedimentation in Westergren tube?

VISION measures the RBC level every 10 seconds at every 0.25mm and calculates the derivative.



VISION ESR series according Westergren's =f (BIS, SRP) algorithm:

- The instantaneous sedimentation speed is evaluated by sampling the blood every 10 seconds.
- The speed peak is calculated.
- The "built in" algorithm is used to calculate the ESR (according to Westergren) depending on the speed peak and the starting level.



No need of calibration

VISION is switching the sedimentation height from the large tubes of blood collection (sample) into the 200mm long and 2.5mm diameter Westergren tubes. For such technologies there is no need of calibration because VISION is permanently calibrated as per the Westergren method.

Further, the ESR does not measure a well-defined analyte with a specific molecular structure, but rather a physicochemical phenomenon, perhaps best described as a "measurand." This means that a true standardization of ESR assays is not possible to define. A more appropriate term is "gold standard," as represented by the Westergren method.

Reference: A. Kratz, M. Plebani, M. Peng, Y.K etl (12 May 2017) ICSH recommendations for modified and alternate methods measuring the erythrocyte sedimentation rate".

VISION Series

VISION Pro is our Premium ESR Analyzer (enhanced features by LCD touch screen, Internal Barcode scanner, thermal printer, bidirectional LIS connection).



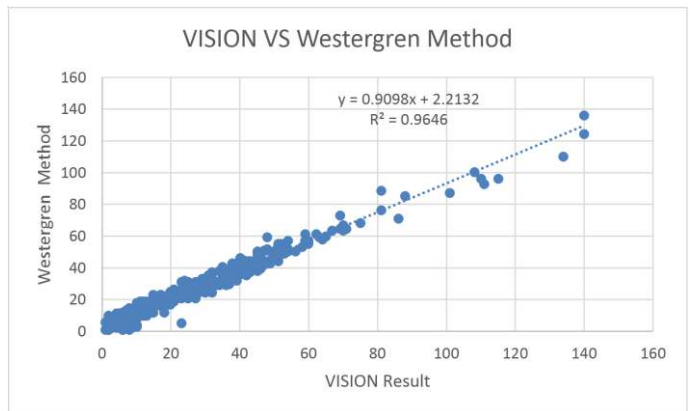
VISION is our Main Stream ESR analyzer.

The better the information, the higher the quality

VISION offers two results per sample, ESR room temperature and ESR connected as per Manley' normogram. ESR results are corrected to 18 °C .

Quality test

A good correlation (437samples) between the VISION result in EDTA tube and Sedimentation rate in Westergren tube.



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