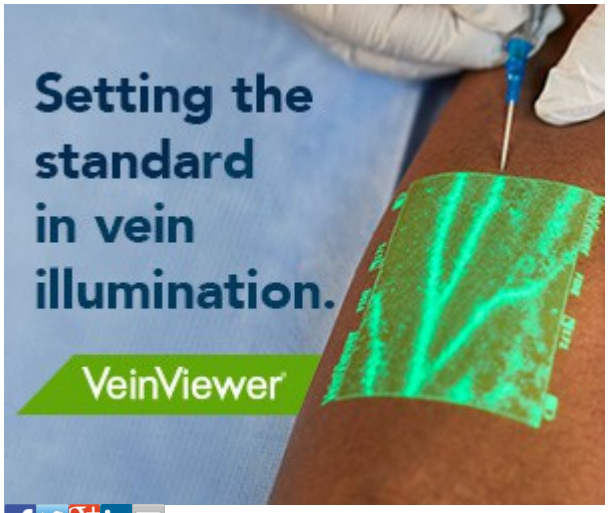

The study endpoint was to analyze the effect of preanalytical (time, temperature, anticoagulant) and analytical (imprecision, correlation between volume and platelet concentration) variables on mean platelet volume (MPV)" Buttarello et al (2017).

Abstract:

BACKGROUND: The study endpoint was to analyze the effect of preanalytical (time, temperature, anticoagulant) and analytical (imprecision, correlation between volume and platelet concentration) variables on mean platelet volume (MPV). A further aim was to calculate in an adult population the reference intervals using the Sysmex XE-5000 analyzer. A critical evaluation was also made of the clinical utility of these parameters.

ReTweet if useful... Effect of preanalytical and analytical variables on mean platelet volume https://ctt.ec/ck8Io+ @ivteam #ivteam

Click To Tweet

METHODS: Analyses of the above values were performed in duplicate in 170 healthy adults of both sexes: (1) within 30 min from collection, and (2) after 4 h. To evaluate stability over time, the value of the platelet parameters of 20 subjects were determined, a re-analysis being performed for a period of up to 24 h on samples maintained at room temperature and 4°C using either K2-EDTA or Na-citrate as anticoagulants.

RESULTS: The stability over time of MPV closely depends on the anticoagulant used, storage temperature and time interval between venipuncture and analysis. An inverse, non-linear correlation between MPV and platelet count was also found.

CONCLUSIONS: In view of their effect on MPV and other related indices, the preanalytical and analytical variables make them, little more than experimental.

Reference:

Buttarello, M., Mezzapelle, G. and Plebani, M. (2017) Effect of preanalytical and analytical variables on the clinical utility of mean platelet volume. Clinical Chemistry and Laboratory Medicine. December 1st. .

doi: 10.1515/cclm-2017-0730.

Thank you to our partners for supporting IVTEAM