

Lipaemia: an overrated interference

Sir, I would be grateful for the opportunity to comment on a recent article by Anderson *et al.*¹ Any statistical test for the difference between means or medians will be inclusive of analytical variation, and thus assessing the significance of differences by comparison with the analytical CV \times 2.8 is invalid. If the *P* value indicates statistical significance then the difference is statistically significant. Whether this difference is of practical or clinical significance is a different question. It might be valid to compare any one difference value with the analytical CV \times 2.8.

As only sera with high lipid levels would be expected to show interference, it would be interesting to do a separate analysis of the 12 sera with triglyceride levels >10 mmol/L. Calculating overall mean or especially median differences could mask very significant differences for individual serum

samples. Some differences could be very high without affecting the median value.

The effect of lipaemia on individual samples would be important and thus Bland and Altman differences plots² or a simple table showing differences would be more appropriate and informative.

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References

- 1 Anderson NR, Slim S, Gama R, Holland MR. Lipaemia: an overrated interference? *Br J Biomed Sci* 2003; **60**: 141–3.
- 2 Hollis S. Analysis of method comparison studies. *Ann Clin Biochem* 1996; **33**: 1–4.

CPD

JOURNAL-BASED LEARNING – BJBS

Deadline for submission of a completed answer card:
Friday 1 April 2005.

Factor V Leiden: association with venous thromboembolism in pregnancy and screening issues

Harvey D, Lowe GM. *Br J Biomed Sci* 2004; **61**: 157–64
Assessment No: **129904** (please enter on JBL card)

A Under normal conditions, procoagulant forces prevail over anticoagulant mechanisms.	TRUE	FALSE	I In pregnancy, concentrations of most clotting factors decrease, while those of natural anticoagulants increase.	TRUE	FALSE
B About 20% of factor V (FV) in blood is synthesised by megakaryocytes.	TRUE	FALSE	J Pregnancy seems to cause an acquired APCR state.	TRUE	FALSE
C Factor V contains triplicated A domains, duplicated B domains and a connecting C region.	TRUE	FALSE	K Recent evidence indicates a link between FV Leiden and an increased risk of venous thromboembolism (VTE) during pregnancy.	TRUE	FALSE
D Activated protein C (APC) down-regulates the prothrombinase complex by inactivating factor Va (Vi) proteolytically.	TRUE	FALSE	L Genetic testing is highly specific and more selective for FV Leiden than is clotting analysis.	TRUE	FALSE
E Studies showed that 95% of APC resistance (APCR) cases had a mutation in the gene coding for FV synthesis.	TRUE	FALSE	M Low absolute incidence of FV Leiden-related thrombosis in pregnancy does not support routine screening.	TRUE	FALSE
F Prevalence of FV Leiden is approximately 1% and 5% in healthy Caucasian and black populations, respectively.	TRUE	FALSE	N Low molecular weight heparin is used rarely in Europe to treat women with VTE.	TRUE	FALSE
G Assays for APCR provide a direct measure of FV inhibition.	TRUE	FALSE	O Protein S is an enzymatic plasma protein.	TRUE	FALSE
H Modified APCR assay permits detection of FV Leiden in pregnancy.	TRUE	FALSE	P A concentration of approximately 100 µg/mL FV is found in plasma.	TRUE	FALSE
			Q Only selected pregnant women are screened for FV Leiden at present.	TRUE	FALSE
			R The APC-cleavage site at Arg506 is absent in FV Leiden.	TRUE	FALSE
			S The FV Leiden mutation in Caucasian populations is the most common heritable thrombophilic defect.	TRUE	FALSE
			T In general, many pregnant women who carry the FV Leiden mutation do not experience a thrombotic event.	TRUE	FALSE