The LumiraDx Platform INR Test is a point of care thrombin activation assay which has low interference from Lupus Anticoagulants similar to that observed in widely used conventional thromboplastins on standard platforms.

Background
- Antiphospholipid syndrome (APS), is an autoimmune state where aPL are associated with thrombotic and adverse obstetric events. Those with thrombotic events are anticoagulated using vitamin K antagonists (VKAs).
- Lupus anticoagulants (LA) are aPL that can interfere with phospholipid-dependent coagulation assays, leading to elevated clotting times and unwarranted VKA dose adjustments.

Aim
- To assess whether the LumiraDx INR Test is sensitive to interference by aPL.

Methods
- 51 LA positive frozen plasma samples, with previously reported INR results using Innovin reagent (Sysmex CS2100§), were tested on the LumiraDx INR Test, and also the ACL Elite Pro¥.
- 32 samples were LA positive patients who were not anticoagulated; two were from LA positive patients receiving Low Molecular Weight Heparin (LMWH) and 17 were LA positive, from patients receiving VKAs.

Results
- No interference was seen in the 32 non-anticoagulated patient samples (INRs were 0.8 - 1.1).
- Of the two from patients receiving LMWH, one INR was normal another had an increased INR, indicative of interference.
- Of the 17 LA positive patients receiving VKAs, one sample gave a highly elevated INR on the LumiraDx platform and on the Sysmex in comparison to an especially LA-insensitive reagent.

Conclusion
- The present study on a small but representative cohort suggests that LumiraDx INR Test has similarly low LA interference to widely used conventional thromboplastins on standard platforms.

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