

### Revised PTT Mixing Study

Starting June 4, 2020, an incubation step might be added to the mixing study of the partial thromboplastin time. Reports will include interpretive comments.

Mixing study may be useful to evaluate a prolonged PTT for factor deficiency or the presence of coagulation inhibitors. Mixing study can be performed if the PTT > 38 seconds.

In the test, an equal amount of pooled normal plasma is mixed with the patient's plasma. In factor deficiency, the normal plasma supplies the missing factor(s), and the PTT is corrected. In contrast, when an inhibitor is present, the PTT remains prolonged (immediate mix).

If no inhibitor is detected in the immediate mix, an incubated mix is performed (1 hour at 37 °C) for the detection of time-dependent inhibitors (many factor VIII inhibitors and 15% of lupus anticoagulants).

EPIC code: LAB9264 (old code: LAB5002)

Reports will include one of the following interpretations:

**An inhibitor detected** (factor inhibitor, lupus anticoagulant, IIa or Xa inhibitor drug, D-dimer, other non-specific inhibitor): normal plasma doesn't correct the PTT in a 1:1 mix.

**A time dependent inhibitor detected** (likely factor VIII inhibitor or lupus anticoagulant): normal plasma corrects the PTT in the immediate 1:1 mix, but not after 1 hour incubation.

**No inhibitor detected:** normal plasma corrects the PTT in a 1:1 mix both immediately and after 1 hour incubation, suggestive of factor deficiency.

