



Memo to: Healthcare Personnel  
From: Alverno Clinical Laboratories General Laboratory  
Subject: **New test – Lupus Anticoagulant Panel**

Alverno Clinical Laboratories is proud to announce the addition of the lupus anticoagulant panel to its test menu. The panel includes the following:

**PTT-LA:** An APTT that is especially sensitive to lupus anticoagulants. The presence of circulating anticoagulants of the LA type can lead to the prolongation of the APTT, and this prolongation is much longer with the PTT-LA reagent than with regular APTT reagents. The PTT-LA reagent is used for the LA screening only.

**dRVVT:** dilute Russell's viper venom time. The Siemens LA1/LA2 test is reported as the ratio of dRVVTs performed with and without additional phospholipid. A higher ratio indicates phospholipid dependence, and therefore suggestive of LA.

**Hexagonal Phase:** The Staclot LA is a confirmatory test reflexed at additional charge when either the PTT-LA or the dRVVT is abnormal.

Lupus anticoagulants (LA) are antiphospholipid antibodies that prolong phospholipid-dependent coagulation assays such as the aPTT. Although first discovered in patients with systemic lupus erythematosus (SLE), the overwhelming majority of LA patients do not have SLE. Also, despite the name, LA are associated with thrombosis risk rather than bleeding. Lupus anticoagulants are considered to be a significant risk factor in patients with otherwise unexplained thrombosis and are often present in women who have recurrent fetal loss.

Our panel includes a dilute Russell's viper venom time (dRVVT) screen performed with and without additional phospholipid and a lupus-sensitive aPTT to increase the likelihood of detection. If either of these is abnormal, a hexagonal phase confirmatory test is reflexed.

How interpretations are reported:

<b>PTT-LA</b>	<b>DRVVT</b>	<b>HEX PHASE</b>	<b>INTERPRETATION</b>
NORMAL	NORMAL	not reflexed	Not Detected
ABNORMAL	NORMAL	NORMAL	Not detected; common causes for a prolonged screen & negative confirmatory test include factor deficiencies or interfering substances such as heparin or coumadin.
NORMAL	ABNORMAL	NORMAL	Not detected; common causes for a prolonged screen & negative confirmatory test include factor deficiencies or interfering substances such as heparin or coumadin.
ABNORMAL	ABNORMAL	NORMAL	Not detected; common causes for a prolonged screen & negative confirmatory test include factor deficiencies or interfering substances such as heparin or coumadin.
ABNORMAL	NORMAL	ABNORMAL	Detected since the confirmatory test is positive. LA may be associated with thrombotic events, recurrent fetal loss or may be asymptomatic. A bleeding history requires other coagulopathies be excluded. Since LA may be transient, international consensus guidelines suggest waiting at least 12 weeks before retesting to confirm antibody persistence (J THROMB HAEMOST 2006: 4; 295).
NORMAL	ABNORMAL	ABNORMAL	Detected since the confirmatory test is positive. LA may be associated with thrombotic events, recurrent fetal loss or may be asymptomatic. A bleeding history requires other coagulopathies be excluded. Since LA may be transient, international consensus guidelines suggest waiting at least 12 weeks before retesting to confirm antibody persistence (J THROMB HAEMOST 2006: 4; 295).
ABNORMAL	ABNORMAL	ABNORMAL	Detected since the confirmatory test is positive. LA may be associated with thrombotic events, recurrent fetal loss or may be asymptomatic. A bleeding history requires other coagulopathies be excluded. Since LA may be transient, international consensus guidelines suggest waiting at least 12 weeks before retesting to confirm antibody persistence (J THROMB HAEMOST 2006: 4; 295).

No test currently exists that will detect all of these heterogeneous and often transient antibodies. Negative results do not exclude the possibility of LA. Therefore, if LA is suspected, additional testing may be advisable. Abnormal results may be caused by conditions other than LA. Examples include, but are not limited to: presence of heparin, clotting factor deficiencies, presence of factor inhibitors, liver disease, treatment with vitamin K antagonists or thrombin inhibitors (e.g. hirudin, argatroban...), DIC. If LA is suspected based on clinical information, additional testing is recommended.

**Specimen type:** Platelet-poor citrate plasma, frozen. Collect 3.2% sodium citrate tubes filled at least to the etched line. A separate citrate tube must be collected & frozen SEPARATELY for EACH assay ordered. Repeated freeze/thaw cycles as would be required for shared specimens will adversely affect patient results. Specimen collection is critical; false negatives can be seen if platelets are not removed during centrifugation.

Double-spin as follows: centrifuge each citrate tube, remove most plasma without nearing the cells and place in a transfer tube. Centrifuge the transfer tube and remove most of the plasma to a new, properly labeled transfer tube. Freeze immediately. Prepare one double-spun transfer tube for each assay, total of 3.

<b>Specimen stability:</b>	-20° C (frozen)	1 month
	+ 2 to +8° C (refrigerated)	4 hours

**Unacceptable specimens:** Inadequately filled collection tubes exceeding +/- 10% of fill volume, tubes containing anticoagulants other than citrate, clotted samples, samples with visible hemolysis (more than slight), specimens not sent within stability limits, or that have been thawed and refrozen.

The Soft order code is ...**LUPS**