

<b>DATE:</b>	2022 May 18
<b>TO:</b>	All Clinicians at Connect Care Live Sites & All Community Providers/Prescribers, All Zones
<b>FROM:</b>	Dr Etienne Mahe, Hematopathologist & Medical Informatics Lead, South Sector, APL
<b>RE:</b>	<b>Changes to Request Processes for Hemostasis Investigations, Hereditary Thrombophilia/Thrombosis Investigations &amp; Antiphospholipid Syndrome/Lupus Investigations</b>

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## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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### Key Message

- **Effective Immediately**, clinician providers/prescribers must follow new ordering processes for Hemostasis, Hereditary Thrombophilia/Thrombosis investigations and Antiphospholipid Syndrome/Lupus Investigations in Connect Care (including inpatients and Connect Care ambulatory patients). **This applies to all sites that are live on Connect Care, but does not apply to sites still using legacy systems.** For community practitioners, the laboratory has designed fillable PDF requisitions that mirror the ordering process in Connect Care (see web links below).
- **These changes do not apply to routine coagulation testing such as PT/INR, aPTT, D-Dimer or anti-Xa testing. These changes also do not apply to routine antithrombin testing, orderable in Edmonton ONLY.**

### Background

- Hemostasis and hereditary thrombophilia/thrombosis investigations are high complexity and resource intensive laboratory testing workflows. Hemostasis investigations involve the stepwise testing of several analytes of significance to bleeding risk (e.g. clotting factors, von Willebrand factor (vWF), factor inhibitors, and other specialized tests); hereditary thrombophilia/thrombosis investigations involve the stepwise testing of analytes of significance to clotting risk (e.g. FV Leiden and prothrombin gene mutation analysis, protein C, S and antithrombin testing).
- To improve laboratory efficiency, and in line with the Choosing Wisely recommendations, hemostasis and hereditary thrombophilia/thrombosis investigations now require that providers/prescribers answer a series of cascading order questions. These questions will provide the laboratory with the necessary information to ensure that appropriate testing is performed, and will assist providers in determining if testing is indicated given the clinical context. **These new processes also apply to any existing or future therapy plans and order sets.**
- The cascading ordering process in Connect Care will prevent inappropriate ordering based on provider responses. Connect Care users **MUST** use the ordering processes in Connect Care (and **NOT** paper requisitions). Community providers using paper requisitions must **FULLY** and **ACCURATELY** complete the requisition(s), or testing may be cancelled.
- The laboratory investigation of Antiphospholipid Syndromes typically involves the testing of three important analytes, including lupus anticoagulant, and anti-cardiolipin and anti-beta-2-glycoprotein antibodies. Previous ordering in Connect Care required users to order these three analytes separately. Connect Care now provides prescribers/providers the ability to order all three in a single panel.



## How this will impact you

- Connect Care Users: **Hemostasis Investigations**
- The following screenshot summarizes the cascading order questions required for requesting Hemostasis investigations. Note that there is a “default” selection of PTT and PT/INR; other tests can be added as appropriate.

**Hemostasis Investigations -- Blood**

Submitter:   Bill Account:

Is the patient currently on any anticoagulants?

Has the patient been diagnosed with a bleeding disorder?

Does the patient have a family history of bleeding or bleeding disorder?

Does patient have a history of bleeding?

Has patient received blood components or plasma derivatives?

Is the patient currently pregnant or post-partum?

Is the patient on any estrogen containing medication (including birth control)?

Coagulation Screening Tests:  Partial Thromboplastin Time (PTT) / Prothrombin Time (PT/INR)  Fibrinogen  Thrombin Time

von Willebrand Factor (VWF) Evaluation:  VWF Screening Evaluation (Includes FVIII activity, VWF antigen, VWF function)  VWF Antigen only

Inhibitor Screens/Mixing Studies:  PTT Inhibitor Screen/Mixing Study  PT Inhibitor Screen/Mixing Study  Lupus Anticoagulant



PTT-Based Factor Assays:  Factor VIII Activity  Factor IX Activity  Factor XI Activity  Factor XII Activity

PT-Based Factor Assays:  Factor II Activity  Factor V Activity  Factor VII Activity  Factor X Activity

Specific Inhibitor Screen:  Factor VIII Inhibitor  Factor IX Inhibitor  Other


Hematologist Orderable Only:  Factor XIII  Chromogenic Factor VIII Activity  Chromogenic Factor IX Activity

Connect Care Users: **Hereditary Thrombophilia/Thrombosis Investigations**

The following screenshots summarize the cascading order questions required for requesting Hereditary Thrombophilia/Thrombosis Investigations.

Clinics/clinic members who routinely work with patients with Hereditary Thrombophilia/Thrombosis (or are at risk thereof) can indicate “Yes” to the first order question and will immediately be able to select the appropriate test(s).

**Hereditary Thrombophilia Investigations -- Blood** ✓ Accept ✗ Cancel

Are you a member of Thrombosis Medicine, Obstetric Internal Medicine or Pediatrics?  
  

Which tests are required?  
 Partial Thromboplastin Time (PTT) / Prothrombin Time (PT/INR)  Factor V Leiden  
 Prothrombin G20210A Variant  Protein C  Protein S  Antithrombin  
 Antiphospholipid Syndrome Investigation (includes lupus anticoagulant, anti-cardiolipin antibody, and anti-beta-2-g  
 Not Indicated/Illegible

Is the patient currently on any anticoagulants?

Is the patient currently pregnant or post-partum?

Is the patient on any estrogen containing medication (including birth control)?

Thank you for choosing wisely.



Note that inappropriate order responses will result in the following message:

No Collection Required (Other) Lab: EDM University of Alberta Hospital Laboratory

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**Thrombosis Investigations Interpretation -- Other (Scheduled: 5/5/2022 1414)** ✕

This test will be cancelled and auto resulted with comment

### Connect Care Users: Antiphospholipid Syndrome/Lupus Investigation

This panel is orderable within the Hereditary Thrombophilia/Thrombosis Panel, **or as a stand-alone panel**. The stand-alone Antiphospholipid Syndrome/Lupus Investigation panel order screen is shown in the screenshot below. This stand-alone panel includes the following analytes: lupus anticoagulant, anti-cardiolipin antibody (IgG), and anti-B2GPI (IgG). NOTE: individual analytes (red arrows) can be “de-selected” as required.

**Providers/prescribers are reminded of the need to indicate the reason(s) for testing, as well as all anticoagulant medications that the patient is currently taking.**

Antiphospholipid Syndrome Investigation -- Blood ✔ Accept ✕ Cancel

Process Inst.: Order ALERT! Prior to proceeding, see link below

Reference Links: 1. DynaLIFE Test Directory 2. AP Test Directory

Status: Normal Standing Future

Expected Date:  Today Tomorrow 1 Week 2 Weeks 1 Month 3 Months 6 Months  Approx.

Expires: 06/05/2023

Priority: Routine Routine STAT

Class: Lab Collect Lab Collect Clinic Collect Third Party

Specimen Type: Blood Blood

Specimen Src: Blood Blood

Submitter:

Select tests to be performed: ✔ Lupus Anticoagulant ✔ Anti-cardiolipin Antibody ✔ Anti-beta-2-glycoprotein I

Reason for testing (Select all that apply):  Thromboembolism  Autoimmune Disorder  Fertility Investigation  Pregnancy Loss  Prolonged PTT  Other

Is the patient currently on any anticoagulants? None Heparin (unfractionated or low-molecular) Vitamin K Antagonist (eg. warfarin) Other (eg. apixaban, rivaroxaban, fondaparinux, dabigatran, etc)



### **Community Providers/Prescribers (not on Connect Care)**

- Community Providers/Prescribers requesting hemostasis or hereditary thrombophilia/thrombosis investigations must use the new paper requisitions available through the Alberta Precision Laboratories website:
- Special Coagulation Testing Requisition Thrombophilia/Thrombosis Investigations: <https://www.albertahealthservices.ca/frm-21911.pdf>
- Special Coagulation Testing Requisition Hemostasis Investigations: <https://www.albertahealthservices.ca/frm-21905.pdf>
- Community Providers/Prescribers requesting Antiphospholipid Syndrome Investigations may continue to use the general laboratory requisition, or may also use the Special Coagulation Testing Requisition for Thrombophilia/Thrombosis Investigations if additional related testing is indicated.

### **Action Required**

- Providers/Prescribers must use the appropriate ordering workflows for Hemostasis and Hereditary Thrombophilia/Thrombosis Investigations, Antiphospholipid Syndrome Investigation and Special Coagulation, as described above.
- **Providers/Prescribers must update any existing Personalized Preference Lists, Order Sets and Therapy Plans that or Thrombophilia include orders for specialty Hemostasis testing.**

**Effective** Immediately

### **Questions/Concerns**

- Etienne Mahe, Hematopathologist & Medical Informatics Lead, South Sector  
[Etienne.mahe@albertaprecisionlabs.ca](mailto:Etienne.mahe@albertaprecisionlabs.ca); 403-944-5290

### **Approved by**

- Art Szkotak, Hematology Clinical Section Chief, APL North Sector  
[artur.szkotak@albertaprecisionlabs.ca](mailto:artur.szkotak@albertaprecisionlabs.ca); 780-407-7104
- Carolyn O'Hara, Chief Medical Laboratory Officer, Alberta Precision Laboratories  
[Carolyn.OHara@albertaprecisionlabs.ca](mailto:Carolyn.OHara@albertaprecisionlabs.ca)