Job Aid	Thrombosis Screen Worksheet Job Aid - Laboratory	ID	8445
Keywords	**thrombosis, screen, worksheet**		
Department	**Hematology**		

I. Purpose

Use the following job aid to document all results of testing performed for a thrombosis screen.

See the next page for worksheet.

Responsible Owner:	Hematology - Laboratory	**Contact(s):**	Lauren Salvatore
Approved By:	Office of Policy Support - All Other Documents, Malory Tetreault, Nancy Dunbar	**Version #**	17
Current Approval Date:	12/11/2023	**Old Document ID:**	
Date Policy to go into Effect:	12/11/2023		
Related Polices & Procedures:	Thrombosis Screen Procedure - Laboratory		
Related Job Aids:			

Dartmouth Health

Coagulation Laboratory, Hematology, Department of Pathology & Laboratory Medicine, Dartmouth-Hitchcock, Lebanon, NH 03756

Apply Accessioning Label Here
10-YY-XXX-XXXX

THROMBOSIS SCREEN

Apply Case Label Here
10-TS-YY-XXXXX

Study Type: __ Venous __ Arterial __ Hereditary

Medication (circle)**:** Heparin / Warfarin / DOAC - Apixaban / DOAC - Rivaroxaban

Screening Tests		**Result**	**Ref. Range***
Platelet Count			145 – 357 x10(3)/mcL
PT			9.4 – 12.5 sec
PTT			25 – 37 sec
Fibrinogen			200 – 393 mg/dL
Thrombin Time			10 – 17 sec
Thrombosis Risk Specific Tests (a= arterial thrombosis risk; v= venous thrombosis risk)			
a/v	dRVVT (ratio)		<1.20
a/v	Silica Clotting Time (ratio)		<1.20
v	APC Resistance (normalized ratio)		>2.40
v	Anti-thrombin		≥ 83%
v	Protein C**		≥ 70%
v	Protein S**		≥ 64%
a/v	Homocysteine, random, plasma		≤ 15 mcmol/L
a/v	Beta-2 glycoprotein 1 (B2GP1) IgG antibody		<7.0 units/mL
a/v	Beta-2 glycoprotein 1 (B2GP1) IgM antibody		<7.0 units/mL
a/v	Anticardiolipin IgG antibody		<10.0 units/mL
a/v	Anticardiolipin IgM antibody		<10.0 units/mL
v	FV Leiden mutation (if APC <2.40)		negative
v	Prothrombin (20210 G → A) mutation		negative

**ADULT ranges provided; refer to #6140 in Policy Tech for pediatric ranges; **functional assay for protein C and protein S*

To be completed by the TMS physician(s)

Interpretation:	

Resident/Fellow: _____ *Attending:* _____ *Date:* _____

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THROMBOSIS SCREEN EVALUATION

1. Specimens Required
    - four large blue top tubes (3 mL) [for coagulation testing]
    - one 4 mL SST [for anticardiolipin antibodies (ACA) and Beta-2 glycoprotein-1 antibodies]
    - one lavender top tube [for platelet count]
    - one green Lithium Heparin tube [for homocysteine]

2. Immediate Processing Instructions
    - Blue tubes: spin blue top tubes, separate plasma from cells. Spin plasma again. Aliquot the double-spun plasma in ~1 mL volumes (4 to 5 tubes are ideal). Label tubes with a Cerner label or with 2 identifiers (full name, date of birth, medical record number) and date of specimen collection. Freeze plasma aliquots.
    - Lavender tube: room temperature within 24 hours.
    - Green lithium heparin tube: spin within 1 hour, refrigerate, no need to pour off plasma if gel barrier is present.
    - SST tube: refrigerate.

3. Instructions for Technologist in Dartmouth Hitchcock Laboratory
    - Perform PT, PTT, Fibrinogen, and TT. Record coagulation results and platelet count on Thrombosis Screen Worksheet.
    - Obtain lavender tube if available. Used for PT MUT and FACT 5 MUT/APC. After the platelet count is completed, save the lavender top tube in the coagulation refrigerator in the rack on the top, right-hand side.
        - If no lavender tube is received, save the cells from a blue top tube in the coagulation refrigerator. If the sample comes from an outside facility and has already been frozen, freeze the cell with the plasma in the coagulation freezer.
    - If samples are not previously processed:
        - Blue tubes: spin blue top tubes, separate plasma from cells. Spin plasma again. Aliquot the double-spun plasma into ~1 mL volumes (4 to 5 tubes are ideal). Freeze plasma aliquots.
        - If plasma was previously processed, thaw 1 tube and run routine coagulation tests. Mark with a "T" indicating thawed and refreeze sample when completed.

4. Required History
    - Is thrombosis venous or arterial?
    - Recurrent fetal loss?
    - Any precipitating factors: post op, trauma, pregnant, oral contraceptive use, smoker, atherosclerotic cardiovascular disease risks?
    - Recurrent? If so, same location (e.g. left calf) or different?
    - Any family history of thromboembolic disease?
    - On Heparin?
    - On Coumadin? (→ Cannot run Protein S or Protein C)
    - On Direct Oral Anticoagulant (DOAC)?
        - If yes, which one. (→ Cannot run dRVVT or Silica Clotting Time)

5. Additional tests performed based on history, thrombosis screen study type (arterial, venous or hereditary) and medications.

Note: The symbol < (less than or equal) and > (greater than or equal) is utilized exactly as printed out from the instrument. The symbol is used in accordance with CLSI and CAP guidelines.