niagarahealth
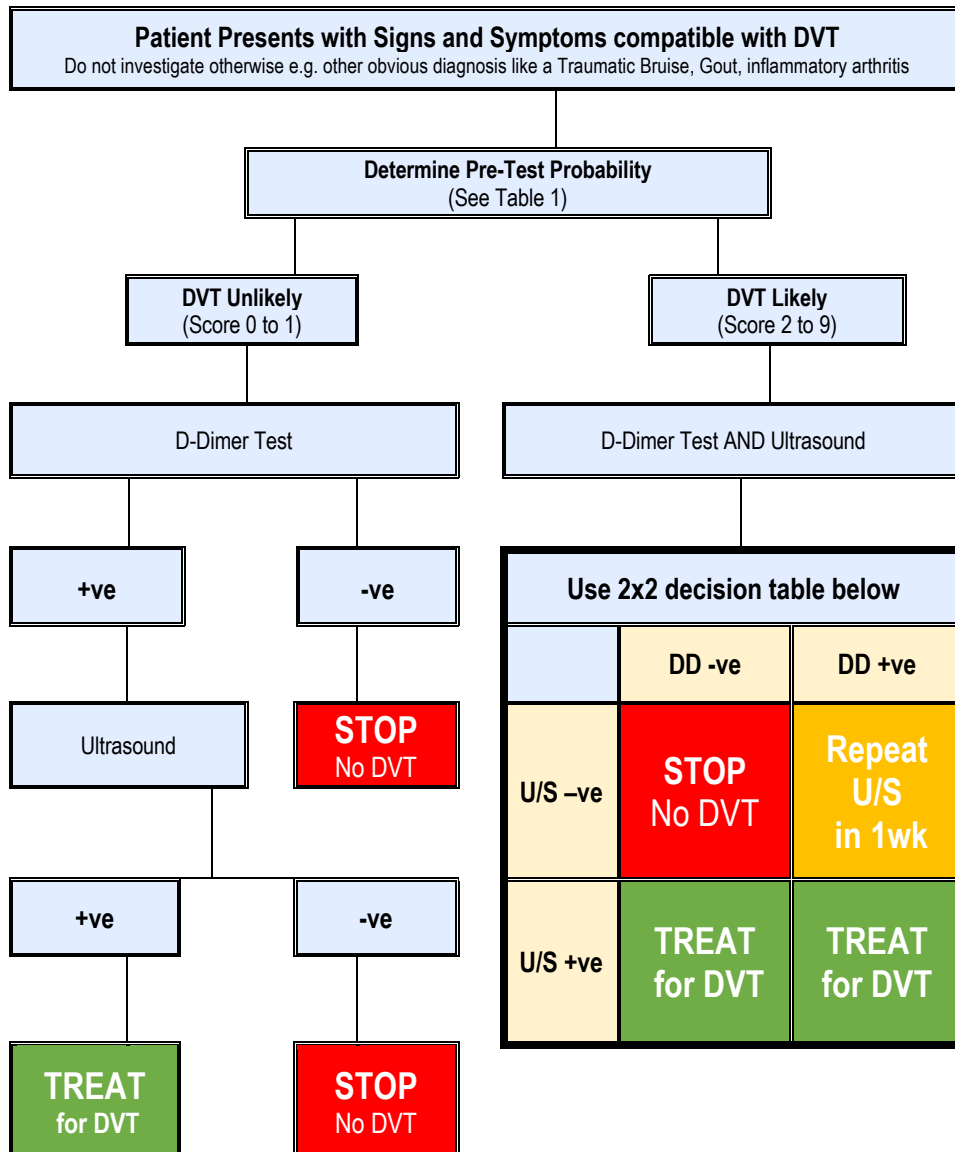Extraordinary Caring. Every Person. Every Time. *Emergency Department*

Recommended DVT Assessment Algorithm

Patient Presents with Signs and Symptoms compatible with DVT
Do not investigate otherwise e.g. other obvious diagnosis like a Traumatic Bruise, Gout, inflammatory arthritis

Determine Pre-Test Probability
(See Table 1)

DVT Unlikely
(Score 0 to 1)

DVT Likely
(Score 2 to 9)

D-Dimer Test

D-Dimer Test AND Ultrasound

+ve → -ve

STOP No DVT

Ultrasound

+ve → -ve

TREAT for DVT

STOP No DVT

Use 2x2 decision table below

	DD -ve	DD +ve
U/S –ve	**STOP** No DVT	**Repeat U/S in 1wk**
U/S +ve	**TREAT for DVT**	**TREAT for DVT**

Table 1: Clinical Model for predicting DVT Pretest Probability

Clinical Characteristic	Score
Active Cancer (palliative or Rx within past 6m)	1
Paralysis or recent immobilization of lower limb	1
Bedridden for >3d or major surgery within 12wks (GA or regional anesthesia)	1
Localized tenderness over distribution of Deep Venous System	1
Swelling of ENTIRE leg	1
Asymmetrical Calf swelling >3cm (measure 10cm below knee)	1
Pitting Edema of the affected leg only	1
Collateral Superficial Veins (non-varicose)	1
Previous Documented VTE	1
Alternative diagnosis is at least as likely to DVT	-2
Total	

Other Notes

1. Use Age Adjusted D-Dimer. Age <50yr: Cutoff = 0.5 Age>50 ug/ml: Cutoff = Age/100 ug/ml
2. When D-Dimer is being drawn, include CBC, Chemistry (with creatinine), LFT, INR and PTT. This is to facilitate treatment and safe prescription.
3. If returning patient for next day U/S, **draw all the labs before discharge home.**
4. if test results not likely within 4 hrs for "DVT likely" patients, please strongly consider anticoagulating with either NOAC (e.g. Dabigatran) or LMWH (e.g. Enoxaparin) while waiting.
5. If suspecting pelvic vein thrombosis (e.g. severe swelling after pelvic surgery), please request pelvic vein ultrasound separately.
6. Most DVT's are treated as outpatient. However, for Phlegmasia Alba & Cerulea Dolens, consider referral for more invasive therapies (Interventional or Surgical) and inpatient care.
7. **Please refer repeat ultrasounds to the patient's PCP or other outpatient physician. Provide the patient with the results and written instructions.**
8. Once Diagnosis is made, use VTE Treatment OrderSet from EntryPoint to guide management.

References: Diagnosis and treatment of deep-vein thrombosis, Scarvelis & Wells, CMAJ. 2006 Oct 24; 175(9): 1087–1092.

VTE diagnosis and treatment is a complex and evolving medical field. This Assessment Algorithm does not replace clinical judgment or detailed knowledge of current VTE recommendations.