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Memorandum

To: UMHS Physicians, Nurse Practitioners and Physicians Assistants

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Subject: UMHS Clinical Care Guideline: Special Topics in Venous Thromboembolism

What’s New!

New guidelines have been developed to assure consistent management of non-pregnant patients ≥18 years with suspected or diagnosed venous thromboembolism. Guideline covers best practice recommendations for diagnosis and treatment of venous thromboembolism.

Key Aspects of Care

**Upper extremity DVT.** Compression ultrasonography is the first-line imaging modality for the diagnosis.

**Lower extremity DVT**

- Distal (calf) DVT
  - Two approaches are possible for patients with distal lower extremity (LE) DVT: treat with anticoagulation therapy (for 3 months), or surveillance with serial compression Doppler ultrasound examinations (weekly for 2 weeks), withholding treatment unless these studies demonstrate extension of the thrombus

- Severe obstructive proximal DVT
  - Manage femoropopliteal DVTs with anticoagulation rather than thrombus removal.
  - Refer iliofemoral DVTs to vascular surgery or interventional radiology to assess for the appropriateness of early thrombus removal.
  - Early thrombus removal is the preferred treatment in patients with limb-threatening venous ischemia (phlegmasia cerulea dolens or venous gangrene) due to iliofemoral venous thrombosis with or without associated femoropopliteal venous thrombosis. Consult vascular surgery urgently in these cases.

**Pulmonary Embolism (PE)**

- Incidentally discovered asymptomatic PE are clinically relevant. Consider treatment with the same systemic anticoagulation given to patients with symptomatic PE. Avoid anticoagulation in patients with a high bleeding risk.

- Massive PE is an acute PE with sustained hypotension. Emergent consultation to medical and interventional experts in PE is advised to determine the thrombolytic strategy (i.e. systemic thrombolytics vs catheter-directed thrombolysis). At Michigan Medicine, this can be achieved at any time by activating the PE Response Team (PERT) via page.

- Submassive PE is an acute PE without hypotension but with right ventricular (RV) dysfunction and/or myocardial necrosis. Treat with immediate initiation of anticoagulation with IV unfractionated heparin or low molecular weight heparin (LMWH). Urgent consultation to medical and interventional experts in PE is advised to determine if thrombolytic therapy is indicated. At Michigan Medicine, the PE Response Team (PERT) can be paged at any time for urgent evaluation of massive and submassive PE cases.

- Admitting and discharging a patient with an acute PE. Patients with a Pulmonary Embolism Severity Index (PESI) score <85 and no other criteria that require hospital admission, can be treated as an outpatient without hospital admission.
Other sites of venous thrombosis
Portal vein thrombosis (PVT) typically require systemic anticoagulation. Management depends on the acuity and chronicity of the thrombosis, and whether or not the patient has cirrhosis.
Mesenteric vein thrombosis (MVT) treatment typically requires a multidisciplinary team approach, which may include medicine, gastroenterology, surgery, and interventional radiology.
For acute MVT, perform systemic anticoagulation and for chronic MVT, the decision for anticoagulation is determined on a case-by-case basis.

Special Considerations in Venous Thromboembolism
Thrombophilia workup, recurrent VTE events, treatment failure, and referral to hematology. Thrombophilia evaluation should not be performed in the setting of acute VTE. Although testing may be useful in some cases (eg. recurrent VTE, treatment failure, unusual VTE sites, etc.), it is generally deferred to the outpatient setting, often via hematology consultation.

All UMHS Inpatient Clinical Care Guidelines can be found at: https://www.uofmhealth.org/providerclinical-care-guidelines