Clinical Pathways Program

Guideline: Venous Thromboembolism Prophylaxis Pharmacologic Recommendations, Adult, INPATIENT

Updated: April 19, 2022

VTE Prophylaxis Pharmacologic Recommendations

This is only a guideline. Please continue to use clinical judgement when verifying or ordering VTE prophylaxis medications.

Patient type with CrCl 30 mL/min or higher unless otherwise noted	**General recommendations (choose one)**
Medical patients or COVID-19 • ***Medical****: using Padua scoring tool resulting in score of 4 or higher* • ***COVID-19 patients:*** *Padua score does not matter.* ***COVID-19 are HIGH RISK***	**Enoxaparin 40 mg subQ q24h (preferred)** Heparin 5000 units subQ q8h
Surgical patients • *Caprini scoring tool resulting in score of 3 or higher*	**Enoxaparin 40 mg subQ q24h (preferred)** Heparin 5000 units subQ q8h
Ortho Joint Replacement (HIP & KNEE) • *Caprini score does not matter, this group is always considered HIGH RISK*	**HIP:** • Enoxaparin 40 mg subQ q24h begin at 0900 POD 1 (to begin at least 2 hrs after epidural removal) • Rivaroxaban 10 mg PO q24h to begin at 0900 POD 1 (the first dose should be given AT LEAST 6 hours after surgery once hemostasis has been established. The first should be given a minimum of six hours after removal of epidural catheter). Continue for 35 days. • Warfarin [titrate to INR] PO qHS (okay with history HIT) • Aspirin 81 mg PO q 12 hr (okay with history HIT) • Aspirin 325 mg PO q 12 hr (okay with history HIT) **KNEE:** • Enoxaparin 30 mg subQ q12h to begin at 0900 POD 1 (to begin at least 2 hrs after epidural removal) • Rivaroxaban 10 mg PO q24h to begin at 0900 POD 1 (the first dose should be given AT LEAST 6 hours after surgery once hemostasis has been established. The first should be given a minimum of six hours after removal of epidural catheter). Continue for 12 days. • Warfarin [titrate to INR] PO qHS (okay with history HIT) • Aspirin 81 mg PO q 12h (okay with history HIT) • Aspirin 325 mg PO q 12h (okay with history HIT)
Ortho Minor • *Caprini score does not matter, this group is always considered HIGH RISK*	Enoxaparin 40 mg subQ q24h Heparin 5000 units subQ q8h Aspirin 81 mg PO q 12h (okay with history HIT) Aspirin 325 mg PO q 12h (okay with history HIT)
Ortho Hip Fracture	Enoxaparin 30 mg subQ q12h Heparin 5000 units subQ q8h Warfarin [titrate to INR] PO qHS

• *Caprini score does not matter, this group is always considered HIGH RISK*	Aspirin 81 mg PO q 12h (okay with history HIT) Aspirin 325 mg PO q 12h (okay with history HIT)
Trauma, Spinal Cord and Burn • *Caprini score does not matter, this group is always considered HIGH RISK*	Enoxaparin 40 mg subQ q12h • Patient has ALL of the following: NO spinal cord injury or TBI, weight is >50 kg, Age 18-65, and CrCl >60 mL/min Enoxaparin 30 mg subQ q12h • Patient has: Spinal cord injury, TBI, CrCl 30-60 mL/min, age >65, or weight 45-50 kg Enoxaparin 30 mg subQ q24h • Patient weight is <45 kg OR CrCl 10-30 mL/min Heparin 5000 units subQ q8h • Patient has End Stage Renal Disease, epidural in place, or CrCl <10 ml/min
Bariatrics • *Caprini score does not matter, this group is always considered HIGH RISK*	*Doses are initiated POD1* Enoxaparin 30 mg subQ q12h OR Enoxaparin 40 mg subQ q12h Heparin 5000 units subQ q8h
OB • **Risk Assessment and Treatment Guide for Obstetric Thromboprophylaxis: Comprehensive Review of Current Guidelines. *Am J Perinatol.* 2019 Jan;36(2):130-135.)**	SCDs needed on all Csection patients Enoxaparin • 50-90 kg: 40mg subQ q24h • Less than 50kg: 30 mg subQ q 24h • Greater than 90 kg: 40mg subQ q 12h Heparin • First trimester: 5000 units subQ q12h • Second trimester: 7500 units subQ q 12h • Third trimester: 10,000 units subQ q 12h If epidural: Use heparin
Obesity (BMI ≥40 kg/m^2)	Enoxaparin 40 mg subQ every 12 hours Heparin 7500 units subQ every 8 hours Heparin 5000 units subQ every 8 hours
Low body weight (< 45 kg)	Enoxaparin 30 mg subQ every 24 hours (anti-Xa monitoring may be a consideration) Heparin 5000 units subQ every 12 hours Heparin 5000 units subQ every 8 hours
CrCl 11-29 mL/min	Heparin 5000 units subQ every 8 hours OB: Heparin (see heparin dosing based on trimester in OB section above) **Ortho, Bariatrics, Spine-Surgery, COVID-19 Patients, Trauma, Spinal Cord or Burn Only**: Enoxaparin 30mg subQ every 24 hours Ortho joint replacement patients: may use warfarin or aspirin at doses noted in ortho joint replacement section
CrCl 10 mL/min or less or Hemodialysis	Heparin 5000 units subQ q8h OB: Heparin (see heparin dosing based on trimester in OB section above) Ortho joint replacement patients: may use warfarin or aspirin at doses noted in ortho joint replacement section
Additional pearls: • Consider Fondaparinux 2.5mg subQ daily if patient has a history of HIT AND CrCl > 30 mL/min AND weight > 50 kg (FONDAPARINUX IS NOT FOR ACTIVE EPIDURAL PATIENTS) • **Heparin** should be the **only** option for patients with **active** epidurals, defer to anesthesia recommendations on **timing** of prophylaxis agents around **placement and removal of catheter** • **Stroke:** HOLD all anticoagulants for 24 hours post-tPA administration • **Post craniotomy patients:** SCDs only until determination of VTE prophy by neurosurgery.	

Clinical guideline summary

CLINICAL GUIDELINE NAME: Adult VTE Prophylaxis Pharmacologic Recommendations

PATIENT POPULATION AND DIAGNOSIS: Adult inpatients by patient type and risk category.

APPLICABLE TO: All Spectrum Health hospitals

BRIEF DESCRIPTION: VTE prophylaxis pharmacologic recommendations for inpatients categorized by patient type and risk assessment score.

OVERSIGHT TEAM LEADER(S): Stephanie Burdick MD, Brittany Hoyte PharmD

OWNING EXPERT IMPROVEMENT TEAM (EIT): VTE

MANAGING CLINICAL PRACTICE COUNCIL (CPC): Acute Health

CPC APPROVAL DATE: April 26, 2022

OTHER TEAM(S) IMPACTED: Pharmacy

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FOR MORE INFORMATION, CONTACT: Brittany Hoyte, PharmD

References:

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