VENTURA COUNTY MEDICAL CENTER

CLINICAL PRACTICE GUIDELINES / PROTOCOLS

Preventing DVT/PE in Hospitalized (Surgical & Medical) Patients
Prophylactic Anticoagulation Clinical Guideline

The contents of this clinical practice guidelines are to be used as a guide. Healthcare professionals should use sound clinical judgment and individualize patient care. This CPG is not meant to be a replacement for training, experience, CME or studying the latest literature and drug information.

CATEGORY		OPTIONS FOR DVT PROPHYLAXIS
Low-risk patients • Age<40, minor surgery*, no risk factors (RFs)‡		• Early ambulation • Leg exercises
Moderate-risk patients • Minor surgery + RFs‡ • Surgery in pts 40-60 yrs • Major surgery# + no RFs‡		• Heparin 5000 Units SQ q8h started 2h preop • Enoxaparin¥ • Fondaparinux¶ 2.5 mg SQ daily • SCD's
High-risk patients • Surgery, 40-60 yrs + RFs‡ • Surgery >60 yrs • Major surgery# <40 yr + RFs‡ • High-risk medical patient‡		• Heparin 5000 Units SQ q8h started 2h preop • Enoxaparin¥ • Fondaparinux¶ 2.5 mg SQ daily • SCD's only if pharmacological prophylaxis is contraindicated¥¶
Highest-risk patients • Major surgery# >40 yr + RFs‡ • THA, TKA or HFS • Major trauma† • Spinal cord injury† • Critically ill medical patient		• Heparin 5000 Units SQ q8h started 2h preop • Enoxaparin¥ • Fondaparinux¶ 2.5 mg SQ daily • (Warfarin titrated to INR 2-3 option for THA or TKA) **PLUS** • SCD's
Moderate-high risk patients at high risk for bleeding		• SCD's until bleeding risk is low Initiate thromboprophylaxis when bleeding risk low

WARNING
Enoxaparin should not be used within 6 hours of epidural or intrathecal puncture AND should be withdrawn 24 hours before removal of epidural catheter.

WARNING
Fondaparinux (Arixtra®) should not be used within 36 hours of epidural or intrathecal puncture AND avoid if epidural catheter is in place.

SURGICAL GUIDELINES
In hip replacement, knee preplacement, hip fracture surgery and abdominal/pelvic cancer surgery continuation of anticoagulation for 30 days significantly reduces risk of venous thromboembolism.

SCD = Sequential Compression devices, THA = total hip arthroplasty, TKA = total knee arthroplasty, HFS = hip fracture surgery, CA = cancer

***** *- eye, ear, dermatologic, laparoscopic or arthroscopic operations*

‡ *- severe burns, immobility, prior venous thromboembolism, active cancer, stroke with paresis, inherited thrombophilia, polycythemia, myeloproliferative disorder, marked obesity, CHF, nephrotic syndrome, inflammatory bowel disease, acute MI, acute respiratory failure, sickle cell disease, paroxysmal nocturnal hemoglobinuria, pregnancy, recent trauma, central venous catheter, mechanical ventilation, severe sepsis, shock, and use of the following medications: tamoxifen, raloxifene, thalidomide, lenalidomide, darbepoetin, epoetin alfa, bevacizumab, hormone replacement therapy or systemic chemotherapy*

*- thoracic, intraperitoneal, bariatric, open urologic and Gyn, cardiac, neurosurgical and cancer operations*

¥ *- LMWH=Low molecular weight heparins: enoxaparin 40 mg SQ daily starting 1-2 hrs preop or 30 mg SQ q12h starting 12-24h postop; dosage adjustment required for CrCl 15-30 mL/min and may be needed if weight>155 kg; avoid if CrCl<15 mL/min or initial PLT < 50K or platelet count falls ≥ 50% or to a level < 100K*

¶ *- Give 6-8h post-op; avoid if CrCl<30 mL/min, weight<50 kg, epidural infusions or endocarditis or initial PLT<50K; no antidote if active bleeding develops;* $T_{1/2}$ *~18h*

† *- Thromboprophylaxis can generally be started within 36 hrs of major trauma or spinal cord injury unless intracranial bleeding, active internal bleeding, perispinal hematoma, or uncorrected coagulopathy present*

• Avoid unfractionated Heparin for initial PTL < 50K or PLT count falls ≥ 50% or to a level < 100K

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