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**DRUG AND TREATMENT ORDERS**

**VASC SURG Vascular Procedure Intra Procedural**

**Available at:**
- BMC-B
- BMC-D
- BMC-S

**VASC SURG Vascular Procedure Intra Procedural**

**Non Categorized**

- Quality Measures Surgical Care

**Nursing Orders**

- Communication Order
  - VERIFY ALL ANTIBIOTICS HAVE BEEN GIVEN IMMEDIATELY UPON ARRIVAL TO OR.
- Forced Air Warming Device
- Cardiac Monitor
  - Continuous
- Intra-Procedural Respiratory Care
  - Oxygen Therapy: 2 liters via nasal cannula, titrate to maintain oxygen saturation GREATER than 93%
  - Oxygen Therapy: 3 liters via nasal cannula, titrate to maintain oxygen saturation GREATER than 93%

**Medications**

**Local Anesthetic Agents**

- Intra-Op Medication (Volume Medication)
  - **Marcaine 0.25% MDV inj soln INFILTRATE PERIOP_ONCE**
    - Comments: To sterile field
- Intra-Op Medication (Volume Medication)
  - **Marcaine 0.5% MDV inj soln INFILTRATE PERIOP_ONCE**
    - Comments: To sterile field
- Intra-Op Medication (Volume Medication)
  - **Xylocaine 1% MDV inj soln 50 mL INFILTRATE PERIOP_ONCE**
    - Comments: To sterile field

**Sedatives**

- Intra-Op Medication (Strength Medication)
  - **Fentanyl 25 mcg IV PUSH PERIOP-PRN, PRN Sedation (DEF)**
    - Comments: Q 2 minutes titrate to sedative effect
  - **Fentanyl 50 mcg IV PUSH PERIOP-PRN, PRN Sedation**
    - Comments: Q 2 minutes titrate to sedative effect
  - **Fentanyl 75 mcg IV PUSH PERIOP-PRN, PRN Sedation**
    - Comments: Q 2 minutes titrate to sedative effect
  - **Fentanyl 100 mcg IV PUSH PERIOP-PRN, PRN Sedation**
    - Comments: Q 2 minutes titrate to sedative effect

**PHYSICIAN SIGNATURE ________________________ DATE ______ TIME ________**

**DRUG AllERGIES**

**Available at:**

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**DRUG AND TREATMENT ORDERS**
VASC SURG Vascular Procedure Intra Procedural

Intra-Op Medication (Strength Medication)
- Versed 1 mg IV PUSH PERIOP-PRN, PRN Sedation (DEF)*
  Comments: Q 2 minutes, titrate to sedative effect
- Versed 2 mg IV PUSH PERIOP-PRN, PRN Sedation
  Comments: Q 2 minutes, titrate to sedative effect
- Versed 3 mg IV PUSH PERIOP-PRN, PRN Sedation
  Comments: Q 2 minutes, titrate to sedative effect
- Versed 4 mg IV PUSH PERIOP-PRN, PRN Sedation
  Comments: Q 2 minutes, titrate to sedative effect
- Versed 5 mg IV PUSH PERIOP-PRN, PRN Sedation
  Comments: Q 2 minutes, titrate to sedative effect

Intra-Op Medication (Strength Medication)
Benadryl 25 mg IV PUSH PERIOP_ONCE

***(NOTE)***Reversal Agents

Intra-Op Medication (Strength Medication)
Romazicon 0.5 mg IV PUSH PERIOP_ONCE
Comments: For Versed reversal

Intra-Op Medication (Strength Medication)
Narcan 0.4 mg IV PUSH PERIOP_ONCE
Comments: Sedation reversal

**Irrigants**

Intra-Op Medication (Volume Medication)
Heparin 1000 unit in 500 ml Premix IRRIGATE PERIOP_ONCE
Comments: To sterile field

Intra-Op Medication (Volume Medication)
Nitroglycerine 100 mcg/10 mL 1000 mcg IRRIGATE PERIOP_ONCE
Comments: 1000 mcg to sterile field to be mixed with NS for irrigation

**Atherectomy Solutions**

Intra-Op Medication (Volume Medication)
Nitroglycerine 25 mg/D5W 250 mL 1 mL IRRIGATE PERIOP_ONCE
Comments: Mix Nitroglycerine 1 mL in NS 9 mL. Final concentration = 1 mcg/mL to back table for irrigation.

Intra-Op Medication (Volume Medication)
CSI Solution 1,000 mL mL IRRIGATE PERIOP_ONCE
Comments: Mix 1,000 mL NS, 20 mL Viperslide, 5 mg Verapamil, and 5 mg Nitroglycerin (50 mg / 250 mL) for irrigation

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**PHYSICIAN SIGNATURE** ____________________________ **DATE** ___________ **TIME** ________

**DRUG ALLERGIES** ____________________________________________________________

**WT:** ___________ **KG:** ___________

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DRUG AND TREATMENT ORDERS
VASC SURG Vascular Procedure Intra Procedural

Thrombectomy Solutions
Intra-Op Medication (Strength Medication)

☐ tPA 10 mg ICATH PERIOP_ONCE (DEF)*
  Comments: Administered into the operative vessel

☐ tPA 20 mg ICATH PERIOP_ONCE
  Comments: Administered into the operative vessel

☐ tPA 30 mg ICATH PERIOP_ONCE
  Comments: Administered into the operative vessel

☐ tPA 40 mg ICATH PERIOP_ONCE
  Comments: Administered into the operative vessel

☐ Heparin 25,000 unit/Dextrose (iso-osmotic) 500 mL ICATH premix 8 mL/hour
  Comments: 400 Units/hour continuous infusion. No titration

Anticoagulants

☐ Intra-Op Medication (IV Infusion)
  tPA 20 mg/NS 180 mL 10 mL/hr ICATH PERIOP_ONCE
  Comments: On the field

☐ Intra-Op Medication (Strength Medication)
  Heparin IV PUSH PERIOP_ONCE

☐ SUB VASC SURG High Intensity Heparin(SUB)*
  ***The above subphase is available at the end of the plan***

☐ SUB VASC SURG Low Intensity Heparin(SUB)*
  ****The above subphase is available at the end of the plan****

☐ MED High Intensity Heparin(SUB)*
  ***Reminder: Order MED High Intensity Heparin (SUB) as a separate form***

☐ MED Low Intensity Heparin(SUB)*
  ***Reminder: Order MED Low Intensity Heparin (SUB) as a separate form***
Intra-Op Medication (Strength Medication)

☐ Plavix 150 mg PO PERIOP_ONCE (DEF)*
  Comments: With a sip of water

☐ Plavix 300 mg PO PERIOP_ONCE
  Comments: With a sip of water

Reversal Agents
Intra-Op Medication (Strength Medication)

☐ Protamine Sulfate 50 mg/5 mL 25 mg IV PUSH PERIOP_ONCE (DEF)*

☐ Protamine Sulfate 50 mg/5 mL 30 mg IV PUSH PERIOP_ONCE

☐ Protamine Sulfate 50 mg/5 mL 35 mg IV PUSH PERIOP_ONCE

☐ Protamine Sulfate 50 mg/5 mL 40 mg IV PUSH PERIOP_ONCE

☐ Protamine Sulfate 50 mg/5 mL 45 mg IV PUSH PERIOP_ONCE

☐ Protamine Sulfate 50 mg/5 mL 50 mg IV PUSH PERIOP_ONCE

Hemostatic Agents

☐ Intra-Op Medication (Volume Medication)
  Gelfoam (large) 1 dose TOPICAL PERIOP_ONCE
  Comments: Apply topically for hemostasis

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DRUG ALLERGIES

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**DRUG AND TREATMENT ORDERS**

**VASC SURG Vascular Procedure Intra Procedural**

- Intra-Op Medication (Volume Medication)
  - thrombin topical 20000 units powder 1 dose TOPICAL PERIOP_ONCE
  - Comments: thrombin topical 20000 units powder for reconstitution

**Antihypertensives**
- Intra-Op Medication (Strength Medication)
  - Labetalol 10 mg IV PUSH PERIOP-PRN, PRN Blood Pressure
  - Comments: Q 5 minutes, titrate to SBP less than 120 mmHg

**Miscellaneous Intra-Op Medications**
- Intra-Op Medication (Strength Medication)
  - Rifampin 600 mg TOPICAL PERIOP_ONCE
- Intra-Op Medication (Strength Medication)
  - Robinul 0.2 mg IV PUSH PERIOP_ONCE
- Intra-Op Medication (Strength Medication)
  - Mannitol 25 g IV PERIOP_ONCE
  - Lasix 20 mg IV PUSH PERIOP_ONCE (DEF)*
  - Lasix 40 mg IV PUSH PERIOP_ONCE
- Intra-Op Medication (Strength Medication)
  - Atropine 0.25 mg IV PUSH PERIOP-PRN, PRN Heartrate
  - Comments: Administer Q30 seconds, titrate to heartrate GREATER than 50

**Contrast Media**
- Intra-Op Medication (Volume Medication)
  - non-ionic contrast media (Visipaque 320) 50 mL IARTERIAL PERIOP_ONCE
  - Comments: Administered intracoronary

**SUB VASC SURG High Intensity Heparin**

**Non Categorized**

- *(NOTE)***For use in patients with DVT/PE or Acute Coronary Syndrome who have NOT received Thrombolytic or Glycoprotein Iib/Illa Inhibitor Drugs
- *(NOTE)***Right click on the High Intensity Heparin Adjustment Table order below to view the actual Adjustment Table

- Quality Measures VTE

**Nursing Orders**
- Weigh Patient
  - ONCE, Prior to beginning heparin infusion
- Notify Provider
  - For any signs of bleeding such as hematemesis, melena, hematuria, hematoma, or hemoptysis
- Notify Provider
  - Contact cardiovascular surgeon before starting heparin on postop cardiovascular patients whose surgery was performed within the past 7 days
- Communication Order
  - Do NOT administer Enoxaparin (Lovenox) or Fondaparinux (Arixtra) if patient is on heparin: Limit IM injections while patient receiving therapeutic doses of heparin.

**Medications**

- *(NOTE)***Give initial bolus of Heparin 60 unit/kg over 30 seconds. **MAXIMUM DOSE = 6,000 unit.**

**PHYSICIAN SIGNATURE** __________________________ DATE __________ TIME _______

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**ORDERS**

VER:2 REV:01/27/16
Page 4 of 8
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**DRUG AND TREATMENT ORDERS**

**VASC SURG Vascular Procedure Intra Procedural**

**(NOTE)** On the heparin bolus dose when the dose calculator window pops up please choose the STANDARDIZED dose. This will round the dose and cap it appropriately.

- High Intensity Heparin Adjustment Table
- Heparin initial bolus (high intensity)
  - 60 unit/kg inj IV PUSH ONCE
  - Comments: ** High Intensity Heparin (For use in DVT/PE) **** Heparin bolus 60 unit/kg over 30 seconds MAXIMUM DOSE = 6,000 unit
- Heparin rebolus dose (high intensity)
  - 60 unit/kg inj IV PUSH ASDIR, PRN Other (see comment)
  - Comments: High Intensity HeparinPTT Bolus Rate Changeless than 45
    - 60 unit/kg increase drip by 4 unit/kg/hr45-65
    - 30 unit/kg increase drip by
      - 2 unit/kg/hr66-100 none No change 101-115 none Decrease drip by
      - 2 unit/kg/hr116-130 none Hold drip x 1 hr decrease by 3 unit/kg/hr131-180
    - none Hold drip x 1 hr decrease by 4 unit/kg/hrabove 180 none Hold drip x 2 hr decrease by 4 unit/kg/hrand repeat PTT and notify physician
- Heparin rebolus dose (high intensity)
  - 30 unit/kg inj IV PUSH ASDIR, PRN Other (see comment)
  - Comments: High Intensity HeparinPTT Bolus Rate Changeless than 45
    - 60 unit/kg increase drip by 4 unit/kg/hr45-65
    - 30 unit/kg increase drip by
      - 2 unit/kg/hr66-100 none No change 101-115 none Decrease drip by
      - 2 unit/kg/hr116-130 none Hold drip x 1 hr decrease by 3 unit/kg/hr131-180
    - none Hold drip x 1 hr decrease by 4 unit/kg/hrabove 180 none Hold drip x 2 hr decrease by 4 unit/kg/hrand repeat PTT and notify physician

**IV Solutions**

- Heparin 25,000 unit/Dextrose (iso-osmotic) 500 mL
  - IV premix Initial Rate: Multiply patient's weight in kg x 14, then subtract 400. Divide by patient's weight in kg., Clinical Instructions: (NOTE) 1,000 unit/hr = 20 mL/hr
  - Comments: ***MAXIMUM INITIAL RATE OF 2,000 units/hour. Round dosage to the nearest mL/hour. Do NOT exceed 40 mL/hour*** Therapeutic heparin level by Anti-Xa factor = 0.3 to 0.7 units/mL *** HEPARIN DOSE ADJUSTMENT PROTOCOL - see reference text *** PTT below 45: 60 units/kg rebolus; increase heparin drip by 4 units/kg/hourPTT 45 - 65: 30 units/kg rebolus; increase heparin drip BY 2 units/kg/hourPTT 66 - 100: No change PTT 101 - 115: Reduce heparin infusion BY 2 units/kg/hourPTT 116 - 130: Hold heparin drip for 1 hour. Reduce heparin drip BY 3 units/kg/hourPTT 131 - 180: Hold heparin drip for 1 hour. Reduce heparin drip BY 4 units/kg/hourPTT above 180: Hold heparin drip for 2 hours. Reduce heparin drip by 4 units/kg/hour and repeat PTT in 4 hours Order STAT PTT 4 hours after initiation or dosage change, then every 4 hours until two consecutive therapeutic PTTs are obtained. Change PTT to every 24 hours once two consecutive therapeutic PTT's obtained.

**Laboratory**

- CBC with Differential.
  - STAT, Blood, ONCE
  - Comments: Prior to starting anticoagulant therapy if not already done
- PT INR
  - STAT, Blood, ONCE
  - Comments: Prior to starting anticoagulant therapy if not already done

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DRUG AND TREATMENT ORDERS
VASC SURG Vascular Procedure Intra Procedural

- **PTT**
  - STAT, Blood, ONCE
  - Comments: Prior to starting anticoagulant therapy if not already done

- **+4 Hours PTT**
  - Timed Study, Blood, Q4H
  - Comments: STAT PTT 4 hours after initiation or dosage change, then every 4 hours until two consecutive therapeutic PTTs are obtained. Change PTT to every 24 hours once two consecutive therapeutic PTT’s obtained.

- **CBC.**
  - Timed Study, Blood, Q48H Int
  - Comments: Every 2 days while on Heparin

- **+3 Days Platelet Count**
  - Timed Study, Blood, Q48H Int
  - Comments: While on Heparin

- **Platelet Count**
  - Early, Early AM, Blood, ONCE
  - Comments: The day following start of Unfractionated Heparin Therapy

***(NOTE)*** A fall in platelets of GREATER than 50% after 5 or more days of Heparin should be regarded as possibly due to Heparin. If the patient has received heparin within the last 90 days, any fall in platelets should be regarded as possibly due to Heparin

SUB VASC SURG Low Intensity Heparin
Non Categorized

***(NOTE)*** For use in patients with Stroke or who have received Thrombolytic or Glycoprotein IIb/IIa Inhibitor Drugs

***(NOTE)*** Right click on the Low Intensity Heparin Adjustment Table order below to view the actual Adjustment Table

- Quality Measures VTE

Nursing Orders

- Weigh Patient
  - ONCE, Prior to beginning heparin infusion

- Notify Provider
  - Notify neurologist before starting heparin on stroke patients.

- Notify Provider
  - Contact cardiovascular surgeon before starting on postop cardiovascular patients whose surgery was performed within the past 7 days

- Notify Provider
  - Notify physician of any signs of bleeding such as hematemesis, hematoma, hemoptysis, melena, or hematuria

- Communication Order
  - Do NOT administer enoxaparin (Lovenox) or fondaparinux (Arixtra) if patient is on heparin. Limit IM injections while patient receiving therapeutic doses of heparin.

Medications

***(NOTE)*** For patients with suspected STROKE or TIA, *** NO BOLUS*** of heparin to be used

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DRUG ALLERGIES

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**DRUG AND TREATMENT ORDERS**

**VASC SURG Vascular Procedure Intra Procedural**

***NOTE***

For patients with Acute Coronary Syndrome or MI give initial bolus of 60 units/Kg over 30 seconds. **MAXIMUM DOSE = 4000 units.**

- **Low Intensity Heparin Adjustment Table**
- **heparin bolus (low intensity)**
  - 60 unit/kg inj IV PUSH ONCE, Clinical Instructions: Maximum dose = 4,000 unit

**IV Solutions**

**MAXIMUM INITIAL RATE OF 1,000 units/hour. Round to nearest mL/hour. (NOTE)**

- **Heparin 25,000 unit/Dextrose (iso-osmotic) 500 mL**
  - 500 IV premix Initial Rate: Multiply patient’s weight in kg x 14, then subtract 400. Divide by patient’s weight in kg. Not to exceed 1,000 unit/hr, Clinical Instructions: (NOTE) 1,000 unit/hr = 20 mL/hr
  - Comments: ***Do not administer enoxaparin (Lovenox) or fondaparinux (Arixtra) if patient is on heparin.***

Heperin Low Intensity Protocol. Initial rate 14 unit/kg/hour. MAX initial rate = 1,000 unit/hour PTT below 40 Increase heparin drip BY 2 units/kg/hour PTT 40 - 45 Increase heparin drip BY 1 unit/kg/hour PTT 46 - 65 No change PTT 66 - 85 Reduce heparin drip BY 1 unit/kg/hour PTT 86 - 100 Hold heparin drip for 1 hour and reduce drip BY 2 units/kg/hour PTT 101 - 130 Hold heparin drip for 1 hour and reduce drip BY 3 units/kg/hour PTT above 130 Hold heparin drip for 2 hour and reduce drip BY 4 units/kg/hour and repeat PTT in 4 hours and notify physician. Order STAT PTT 4 hours after initiation or dosage change, then every 4 hours until two consecutive therapeutic PTTs are obtained. Change PTT to every 24 hours once two consecutive therapeutic PTTs are obtained.

**Laboratory**

- **CBC with Differential.**
  - **STAT, Blood, ONCE**
  - Comments: Prior to starting anticoagulant therapy if not already done

- **PT INR**
  - **STAT, Blood, ONCE**
  - Comments: Prior to starting anticoagulant therapy if not already done

- **PTT**
  - **STAT, Blood, ONCE**
  - Comments: Prior to starting anticoagulant therapy if not already done

- **+4 Hours PTT**
  - **Timed Study, Blood, Q4H**
  - Comments: STAT PTT 4 hours after initiation or dosage change, then every 4 hours until two consecutive therapeutic PTTs are obtained. Change PTT to every 24 hours once two consecutive therapeutic PTTs are obtained.

- **+1 Days Platelet Count**
  - **Early, Early AM, Blood, ONCE**
  - Comments: Day following starting protocol

- **CBC.**
  - **Timed Study, Blood, Q48H Int**
  - Comments: While patient is on heparin.

- **+3 Days Platelet Count**
  - **Timed Study, Blood, Q48H Int**
  - Comments: While patient is on heparin.

**DRUG ALLERGIES**

WT: KG

**ORDERS**

**VER: 2 REV: 01/27/16**

Page 7 of 8

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**DRUG AND TREATMENT ORDERS**

**VASC SURG Vascular Procedure Intra Procedural**

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