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|-----------|-----------|----------|
| SERVICE | ATTENDING | RESIDENT |
| DIAGNOSIS | CONDITION | |

INTRAVENOUS HEPARIN ADMINISTRATION ORDERS

- Provider, STOP! Has your patient had a recent neuraxial procedure (epidural/intrathecal/spinal)?**
 Yes No
 If yes, I have consulted with _____ from Acute Pain Service (986-3334) prior to initiating IV Heparin. See ANTICOAGULATION GUIDELINES FOR NEURAXIAL PROCEDURES: <https://depts.washington.edu/medical/clinicalresources>.
- Patient's total body weight: _____ kg
- Administer loading dose of _____ units heparin IV (round to nearest 500 units)
 (suggested PREVENTION dose, including cardiovascular indications: 50-70 units/kg)
 (suggested TREATMENT dose, including DVT and PE: 80 units/kg)
 NO LOADING DOSE (consider no loading dose in patients without acute thrombosis or who are already anticoagulated with warfarin/heparin/low molecular weight heparin)
- Begin infusion at _____ units heparin IV/hr (rounded to nearest 100 units). Use standard heparin infusion concentration of 25,000 units/250 mL D5W and infusion pump.
 (suggested PREVENTION dose: 12-15 units/kg/hr; suggested TREATMENT dose: 18 units/kg/hr)
- Provide bolus heparin IV and adjust infusion rate as follows, based on aPTT results. Record rate of infusion at the time changes are made.
 Boluses and infusion rate per table below
 NO BOLUS DOSES FOR ANY SUBTHERAPEUTIC aPTT with infusion rate per table below

| aPTT (seconds) | Bolus Dose | Infusion hold time | Infusion rate change |
|---|------------|--------------------|---|
| Under 50 | 4000 units | none | Increase by 200 units/hr |
| 50 - 59 | 2000 units | none | Increase by 100 units/hr |
| 60 - 100 | no bolus | none | No rate change |
| 101 - 110 | no bolus | none | Decrease by 100 units/hr |
| 111 - 120 | no bolus | none | Decrease by 200 units/hr |
| 121 - 150 | no bolus | 30 minutes | Decrease by 200 units/hr |
| 151 - 199 | no bolus | 60 minutes | Decrease by 200 units/hr |
| 200* <i>(potentially contaminated or improperly timed sample)</i> | no bolus | Until aPTT < 200 | Repeat STAT aPTT immediately using peripheral blood draw (or protocol on reverse) then follow protocol above if aPTT < 200 or steps below if aPTT = 200. |
| 200 <i>(properly timed, non-contaminated sample)</i> NOTIFY MD | no bolus | Until aPTT < 100 | Repeat STAT aPTT hourly using peripheral blood draw (or protocol on reverse) until aPTT < 100. Then, decrease the last infusion rate by 300 units/hr and repeat aPTT in 6 hrs. |

*** If aPTT was drawn less than 6 hrs after bolus, or if sample was drawn from a heparinized line, recheck aPTT using correct timing and peripheral or proper line sample technique (See Reverse)**

- Labs:
 - baseline and qam CBC (for platelet count and Hct)
 - baseline and qam aPTT
 - aPTT 6 hours after starting heparin AND
 - aPTT 6 hours after any change in infusion rate
- Notify MD: a) for any signs of bleeding; b) if unable to obtain blood sample; c) if no IV access for > 1 hour
- OTHER HEPARIN ORDERS (rate change, hold, etc): _____

| | | | | | |
|---------------------|------------|-------|----------|------|------|
| PHYSICIAN SIGNATURE | PRINT NAME | PAGER | UPIN/NPI | DATE | TIME |
|---------------------|------------|-------|----------|------|------|

PT.NO

NAME

DOB

UW Medicine
 Harborview Medical Center – UW Medical Center
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 Seattle, Washington

IV HEPARIN ADMINISTRATION ORDERS



U1704

UH1704 REV JAN 09

WHITE - MEDICAL RECORD
 CANARY - PHARMACY
 PINK - NURSING

PHYSICIAN ORDER - YELLOW

OBTAINING BLOOD SAMPLES FOR COAGULATION STUDIES:

ALL COAGULATION STUDIES SHOULD BE COLLECTED VIA PERIPHERAL VENIPUNCTURE*.

Peripheral collection site:

Draw in the opposite extremity from the heparin infusion.

If the opposite extremity is not an option (i.e. arm precautions r/t AV shunt, s/p mastectomy, etc..) then pause the heparin infusion and draw sample from a site distal to the heparin infusion.

Collection:

Use a discard tube to clear the dead air from in the butterfly vacutainer collection system or the needle vacutainer collection system. Once blood is present in the discard tube- thus cleared the vacutainer system, remove the discard tube and begin to draw the blood samples into the vacutainer tubes.

Draw blue top tubes for coagulation labs per the recommended lab drawing order. Invert the tubes the required number of times.

***NOTE:** If a peripheral venipuncture is contraindicated due to the patient's clinical condition such as pancytopenia, thrombocytopenia or no peripheral access is possible, then blood specimens drawn in blue top tubes for coagulation studies may be drawn from the central venous catheter, **EXCEPT do not draw coagulation labs through** large bore dialysis/pheresis catheter of a patient receiving IV heparin infusion therapy.

***THE FOLLOWING HAS BEEN MODIFIED FROM NURSING P&P'S.** **USE FOR HEPARIN INFUSION PROTOCOL ONLY**

The general procedure for drawing coagulation studies from central lines includes the following steps:

1. Stop all fluids and medications infusing through the central venous catheter.
2. Flush each of the central venous catheter lumens/ports with 10 ml. normal saline and clamp lumens.
Rationale: *This is to avoid reflux or backflow from a lumen with heparin in it to the lumen from which you are drawing the blood sample.*
3. Select the port for sampling. Do **not** draw specimen from the port where heparin drip is infusing.
4. Draw and discard a **6ml waste (discard)** from one lumen/port.
5. Draw blue top tubes for coagulation labs per the recommended lab drawing order:
 - First blood cultures,
 - then blue top tubes,
 - followed by gold top tubes,
 - followed by red top tubes,
 - followed by green top tubes,
 - followed by lavender top tubes,
 - followed by gray, pearl, yellow rubber top tubes,
 - and last by anything else.
6. Note on the lab request form that the specimen has been drawn from the central venous catheter.