**APPENDIX 1 (Part 1 of 2). Fully weight-based protocol for administration of unfractionated heparin, for patients with low target for activated partial thromboplastin time ("before" group). © 2019 Providence Health Care. Reproduced with permission.**

**Fully Weight-Based ("Before" Group)**

## HEPARIN - LOW TARGET PROTOCOL 2019

**(Page 1 of 2)**

∗All blanks must be filled in by prescriber∗
Check boxes must be selected to be ordered

Date: _____ Patient Weight: _____ kg ☐ Actual ☐ Estimate

No IM injections; discontinue all previous heparin orders, including dalteparin, enoxaparin, nadroparin or tinzaparin

Platelet count every three days while receiving heparin

PTT Q6 to 8H until within therapeutic range (50 to 70 sec); then PTT daily in AM

**heparin 25,000 units in 500 mL IV fluid (50 units/mL)**; initiate therapy as below ∗OR∗

☐ omit initial bolus dose **(Column B)** and commence infusion **(Column C)** as below ∗OR∗

☐ omit initial heparin dose **(Columns B & C)** begin infusion at _____ units/h and proceed to Maintenance Low Target Heparin Dose Adjustment Guide on following page

| INITIAL HEPARIN DOSE | | |
|---|---|---|
| **Column A** | **Column B** | **Column C** |
| Patient Weight | IV Direct Bolus Dose **Heparin 1000 units/mL** | IV Infusion Rate **Heparin 25,000 units in 500 mL IV fluid (50 units/mL)** |
| 26 to 35.9 kg | 2400 units (**2.4 mL**) | 500 units/h (**10 mL/h**) |
| 36 to 45.9 kg | 3200 units (**3.2 mL**) | 700 units/h (**14 mL/h**) |
| 46 to 55.9 kg | 4000 units (**4 mL**) | 900 units/h (**18 mL/h**) |
| 56 to 65.9 kg | 4800 units (**4.8 mL**) | 1100 units/h (**22 mL/h**) |
| 66 to 75.9 kg | 5600 units (**5.6 mL**) | 1250 units/h (**25 mL/h**) |
| 76 to 85.9 kg | 6400 units (**6.4 mL**) | 1400 units/h (**28 mL/h**) |
| 86 to 95.9 kg | 7200 units (**7.2 mL**) | 1600 units/h (**32 mL/h**) |
| 96 to 105.9 kg | 8000 units (**8 mL**) | 1800 units/h (**36 mL/h**) |
| 106 to 115.9 kg | 8800 units (**8.8 mL**) | 2000 units/h (**40 mL/h**) |

See following page for maintenance dosing

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**Heparin LOW TARGET protocol**

**ALL NEW ORDERS MUST BE FLAGGED**

**FAX COMPLETED ORDERS TO PHARMACY** **PLACE ORIGINAL IN PATIENT'S CHART** **PLACE COPY IN MAR BINDER**

Appendix to: Cameron T, Chua D, Shalansky S, Tam E, Wang E. Comparison of a fully weight-based protocol with a non–weight-based dosage titration protocol for IV unfractionated heparin: a before-and-after study. *Can J Hosp Pharm*. 2023;76(1):23-8.

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**Fully Weight-Based ("Before" Group)**

## HEPARIN
## LOW TARGET PROTOCOL
## 2019

**(Page 2 of 2)**

∗All blanks must be filled in by prescriber∗
Check boxes must be selected to be ordered

Date: _____ Patient Weight: _____ kg ☐ Actual ☐ Estimate

No IM injections; discontinue all previous heparin orders, including dalteparin, enoxaparin, nadroparin or tinzaparin

Platelet count every three days while receiving heparin

PTT Q6 to 8H until within therapeutic range (50 to 70 sec); then PTT daily in AM

Titrate heparin rate as per table below to achieve PTT of 50 to 70 sec ∗OR∗

☐ omit bolus(es) and adjust infusion rate only to achieve PTT of 50 to 70 seconds

If PTT over 99 seconds for 2 consecutive measurements, contact prescriber

Document rate changes as per the Parenteral Drug Therapy Manual

If heparin infusion is interrupted for one hour or less, resume at previous rate; if interrupted for more than one hour, contact prescriber

### MAINTENANCE LOW TARGET HEPARIN DOSE ADJUSTMENT GUIDE

IV Direct Bolus: **Heparin 1000 units/mL** IV Infusion: **Heparin 25,000 units in 500 mL IV fluid (50 units/mL)**

| Patient Weight | Dose Change | PTT (seconds) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 39 sec and below | 40 to 49 sec | 50 to 70 sec | 71 to 84 sec | 85 to 99 sec | 100 sec and above |
| 26 to 35.9 kg | Bolus: | 1200 units (1.2 mL) | 1200 units (1.2 mL) | THERAPEUTIC RANGE (NO CHANGE) | none | none | Stop for 60 min |
| | Infusion: | ↑ by 2 mL/h | ↑ by 1 mL/h | | ↓ by 1 mL/h | ↓ by 2 mL/h | ↓ by 3 mL/h |
| 36 to 45.9 kg | Bolus: | 1600 units (1.6) mL | 1600 units (1.6 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 3 mL/h | ↑ by 1 mL/h | | ↓ by 1 mL/h | ↓ by 3 mL/h | ↓ by 4 mL/h |
| 46 to 55.9 kg | Bolus: | 2000 units (2 mL) | 2000 units (2 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 3 mL/h | ↑ by 2 mL/h | | ↓ by 2 mL/h | ↓ by 4m L/h | ↓ by 5 mL/h |
| 56 to 65.9 kg | Bolus: | 2400 units (2.4 mL) | 2400 units (2.4 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 4 mL/h | ↑ by 2 mL/h | | ↓ by 2 mL/h | ↓ by 5 mL/h | ↓ by 6 mL/h |
| 66 to 75.9 kg | Bolus: | 2800 units (2.8 mL) | 2800 units (2.8 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 4 mL/h | ↑ by 3 mL/h | | ↓ by 3 mL/h | ↓ by 6 mL/h | ↓ by 7 mL/h |
| 76 to 85.9 kg | Bolus: | 3200 units (3.2 mL) | 3200 units (3.2 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 5 mL/h | ↑ by 3 mL/h | | ↓ by 3 mL/h | ↓ by 6 mL/h | ↓ by 7 mL/h |
| 86 to 95.9 kg | Bolus: | 3600 units (3.6 mL) | 3600 units (3.6 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 5 mL/h | ↑ by 4 mL/h | | ↓ by 4 mL/h | ↓ by 7 mL/h | ↓ by 8 mL/h |
| 96 to 105.9 kg | Bolus: | 4000 units (4 mL) | 4000 units (4 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 6 mL/h | ↑ by 4 mL/h | | ↓ by 4 mL/h | ↓ by 8 mL/h | ↓ by 9 mL/h |
| 106 to 115.9 kg | Bolus: | 4400 units (4.4 mL) | 4400 units (4.4 mL) | | none | none | Stop for 60 min |
| | Infusion: | ↑ by 6 mL/h | ↑ by 5 mL/h | | ↓ by 5 mL/h | ↓ by 9 mL/h | ↓ by 10 mL/h |

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**Heparin LOW TARGET protocol**

**ALL NEW ORDERS MUST BE FLAGGED**

**FAX COMPLETED ORDERS TO PHARMACY** **PLACE ORIGINAL IN PATIENT'S CHART** **PLACE COPY IN MAR BINDER**

Appendix to: Cameron T, Chua D, Shalansky S, Tam E, Wang E. Comparison of a fully weight-based protocol with a non–weight-based dosage titration protocol for IV unfractionated heparin: a before-and-after study. *Can J Hosp Pharm*. 2023;76(1):23-8.

**APPENDIX 2 (Part 1 of 2). Fully weight-based protocol for administration of unfractionated heparin, for patients with standard target for activated partial thromboplastin time ("before" group). © 2019 Providence Health Care. Reproduced with permission.**

**Fully Weight-Based ("Before" Group)**

## HEPARIN - STANDARD TARGET PROTOCOL 2019

**(Page 1 of 2)**

∗All blanks must be filled in by prescriber∗
Check boxes must be selected to be ordered

Date: _____ Patient Weight: _____ kg ☐ Actual ☐ Estimate

No IM injections; discontinue all previous heparin orders, including dalteparin, enoxaparin, nadroparin or tinzaparin

Platelet count every three days while receiving heparin

PTT Q6 to 8H until within therapeutic range (60 to 90 sec ); then PTT daily in AM

**heparin 25,000 units in 500 mL IV fluid (50 units/mL)**; initiate therapy as below ∗OR∗

☐ omit initial bolus dose **(Column B)** and commence infusion **(Column C)** as below ∗OR∗

☐ omit initial heparin dose **(Columns B & C)** begin infusion at _____ units/hr and proceed to Maintenance Standard Heparin Dose Adjustment Guide on following page

| INITIAL HEPARIN DOSE | | |
|---|---|---|
| **Column A** | **Column B** | **Column C** |
| Patient Weight | IV Direct Bolus Dose **Heparin 1000 units/mL** | IV Infusion Rate **Heparin 25,000 units in 500 mL IV fluid (50 units/mL)** |
| 26 to 35.9 kg | 2400 units (**2.4 mL**) | 500 units/h (**10 mL/h**) |
| 36 to 45.9 kg | 3200 units (**3.2 mL**) | 700 units/h (**14 mL/h**) |
| 46 to 55.9 kg | 4000 units (**4 mL**) | 900 units/h (**18 mL/h**) |
| 56 to 65.9 kg | 4800 units (**4.8 mL**) | 1100 units/h (**22 mL/h**) |
| 66 to 75.9 kg | 5600 units (**5.6 mL**) | 1250 units/h (**25 mL/h**) |
| 76 to 85.9 kg | 6400 units (**6.4 mL**) | 1400 units/h (**28 mL/h**) |
| 86 to 95.9 kg | 7200 units (**7.2 mL**) | 1600 units/h (**32 mL/h**) |
| 96 to 105.9 kg | 8000 units (**8 mL**) | 1800 units/h (**36 mL/h**) |
| 106 to 115.9 kg | 8800 units (**8.8 mL**) | 2000 units/h (**40 mL/h**) |

See following page for maintenance dosing

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**Heparin STANDARD protocol**

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**Fully Weight-Based ("Before" Group)**

## HEPARIN - STANDARD TARGET PROTOCOL 2019

**(Page 2 of 2)**

∗All blanks must be filled in by prescriber∗
Check boxes must be selected to be ordered

Date: _____ Patient Weight: _____ kg ☐ Actual ☐ Estimate

No IM injections; discontinue all previous heparin orders, including dalteparin, enoxaparin, nadroparin or tinzaparin

Platelet count every three days while receiving heparin

PTT Q6 to 8H until within therapeutic range (60 to 90 sec); then PTT daily in AM

Titrate heparin rate as per table below to achieve PTT of 60 to 90 sec

∗OR∗ ☐ omit bolus(es) and adjust infusion rate only to achieve PTT of 60 to 90 sec

If PTT over 109 seconds for 2 consecutive measurements, contact prescriber

Document rate changes as per the Parenteral Drug Therapy Manual

If heparin infusion is interrupted for one hour or less, resume at previous rate; if interrupted for more than one hour, contact prescriber

**MAINTENANCE STANDARD HEPARIN DOSE ADJUSTMENT GUIDE**

IV Direct Bolus **Heparin 1000 units/mL** IV Infusion: **Heparin 25,000 units in 500 mL IV fluid (50 units/mL)**

| Patient Weight | Dose Change | 49 sec and below | 50 to 59 sec | 60 to 90 sec | 91 to109 sec | 110 sec and above |
|---|---|---|---|---|---|---|
| 26 to 35.9 kg | Bolus: | 2400 units (2.4 mL) | 1200 units (1.2 mL) | THERAPEUTIC RANGE (NO CHANGE) | none | Stop for 60 min |
| | Infusion: | ↑ by 2 mL/h | ↑ by 1 mL/h | | ↓ by 1 mL/h | ↓ by 2 mL/h |
| 36 to 45.9 kg | Bolus: | 3200 units (3.2) mL | 1600 units (1.6 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 3 mL/h | ↑ by 1 mL/h | | ↓ by 1 mL/h | ↓ by 3 mL/h |
| 46 to 55.9 kg | Bolus: | 4000 units (4 mL) | 2000 units (2 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 4 mL/h | ↑ by 2 mL/h | | ↓ by 2 mL/h | ↓ by 4 mL/h |
| 56 to 65.9 kg | Bolus: | 4800 units (4.8 mL) | 2400 units (2.4 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 5 mL/h | ↑ by 2 mL/h | | ↓ by 2 mL/h | ↓ by 5 mL/h |
| 66 to 75.9 kg | Bolus: | 5600 units (5.6 mL) | 2800 units (2.8 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 6 mL/h | ↑ by 3 mL/h | | ↓ by 3 mL/h | ↓ by 6 mL/h |
| 76 to 85.9 kg | Bolus: | 6400 units (6.4 mL) | 3200 units (3.2 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 6 mL/h | ↑ by 3 mL/h | | ↓ by 3 mL/h | ↓ by 6 mL/h |
| 86 to 95.9 kg | Bolus: | 7200 units (7.2 mL) | 3600 units (3.6 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 7 mL/h | ↑ by 4 mL/h | | ↓ by 4 mL/h | ↓ by 7 mL/h |
| 96 to 105.9 kg | Bolus: | 8000 units (8 mL) | 4000 units (4 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 8 mL/h | ↑ by 4 mL/h | | ↓ by 4 mL/h | ↓ by 8 mL/h |
| 106 to 115.9 kg | Bolus: | 8800 units (8.8 mL) | 4400 units (4.4 mL) | | none | Stop for 60 min |
| | Infusion: | ↑ by 9 mL/h | ↑ by 5 mL/h | | ↓ by 5 mL/h | ↓ by 9 mL/h |

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**Heparin STANDARD protocol**

**ALL NEW ORDERS MUST BE FLAGGED**

**FAX COMPLETED ORDERS TO PHARMACY** **PLACE ORIGINAL IN PATIENT'S CHART** **PLACE COPY IN MAR BINDER**

Appendix to: Cameron T, Chua D, Shalansky S, Tam E, Wang E. Comparison of a fully weight-based protocol with a non–weight-based dosage titration protocol for IV unfractionated heparin: a before-and-after study. *Can J Hosp Pharm*. 2023;76(1):23-8.

**APPENDIX 3 (Part 1 of 2). Non–weight-based dosage titration protocol for administration of unfractionated heparin with low target for activated partial thromboplastin time ("after" group). © 2019 Providence Health Care. Reproduced with permission.**

**Non-Weight-Based Dosage Titration ("After" Group)**
**HEPARIN – LOW TARGET PROTOCOL**

DATE AND TIME

**HEPARIN INFUSION LOW PTT TARGET ORDERS (Regional)**
(Items with check boxes must be selected to be ordered) Page 1 of 2

Indications include anticoagulation of patients who are at a higher risk of bleeding i.e. due to recent surgery, CICU or stroke patients who have received other anti-thrombotic or antiplatelet agents. (no active DVT, PE, peripheral arterial thrombosis, or mechanical heart valves)

Patient Weight: _____ kg ☐ Actual ☐ Estimate

**LABORATORY:** Baseline PTT, INR and CBC with platelet count (contact prescriber if baseline PTT is elevated)
CBC with platelet count every 2 days while on heparin

**MEDICATIONS:** If patient on epidural infusion, contact Acute Pain Service (APS)/Anesthesiology STAT and do not start heparin without their approval

Discontinue prior heparin, low molecular weight heparin, rivaroxaban, dabigatran, apixaban, fondaparinux, edoxaban orders

No IM injections while on heparin infusion

If possible, avoid non-steroidal anti-inflammatory drugs (NSAIDs)

**Select initial heparin IV bolus, and heparin IV infusion**

| **Patient weight** | **Initial Heparin IV Bolus 70 units/kg (max 8000 units)** use heparin 10,000 units/10 mL **VIAL** **Do Not Order Bolus if High Risk of Bleed** | **Heparin IV infusion starting rate** use heparin 25,000 units/250 mL (100 units/mL) **BAG** |
|---|---|---|
| 26 to 35.9 kg | ☐ 2100 units (= 2.1 mL) bolus | ☐ 400 units/h |
| 36 to 45.9 kg | ☐ 2800 units (= 2.8 mL) bolus | ☐ 550 units/h |
| 46 to 55.9 kg | ☐ 3500 units (= 3.5 mL) bolus | ☐ 700 units/h |
| 56 to 65.9 kg | ☐ 4200 units (= 4.2 mL) bolus | ☐ 850 units/h |
| 66 to 75.9 kg | ☐ 4900 units (= 4.9 mL) bolus | ☐ 1000 units/h |
| 76 to 85.9 kg | ☐ 5600 units (= 5.6 mL) bolus | ☐ 1100 units/h |
| 86 to 95.9 kg | ☐ 6300 units (= 6.3 mL) bolus | ☐ 1250 units/h |
| 96 to 105.9 kg | ☐ 7000 units (= 7 mL) bolus | ☐ 1400 units/h |
| 106 to 115.9 kg | ☐ 7700 units (= 7.7 mL) bolus | ☐ 1500 units/h |
| 116 kg or greater | ☐ 8000 units (= 8 mL) bolus | ☐ 1600 units/h |

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**HEPARIN INFUSION LOW PTT TARGET**

**ALL NEW ORDERS MUST BE FLAGGED**
**FAX COMPLETED ORDERS TO PHARMACY PLACE ORIGINAL IN PATIENT'S CHART**

Appendix to: Cameron T, Chua D, Shalansky S, Tam E, Wang E. Comparison of a fully weight-based protocol with a non–weight-based dosage titration protocol for IV unfractionated heparin: a before-and-after study. *Can J Hosp Pharm*. 2023;76(1):23-8.

**APPENDIX 3 (Part 2 of 2). Non–weight-based dosage titration protocol for administration of unfractionated heparin with low target for activated partial thromboplastin time ("after" group). © 2019 Providence Health Care. Reproduced with permission.**

**Non-Weight-Based Dosage Titration ("After" Group)**

**HEPARIN – LOW TARGET PROTOCOL**

DATE AND TIME

**HEPARIN INFUSION LOW PTT TARGET ORDERS (Regional)**

(Items with check boxes must be selected to be ordered) Page 2 of 2

**PTT-Adjusted Heparin Therapy Nomogram: LOW PTT TARGET – goal range 50 to 70 seconds**

Instructions: Repeat PTT in 6 hours∗ until 2 consecutive PTTs are within therapeutic range, then monitor PTT once daily

| PTT (sec) | Subsequent bolus | Rate Change |
|---|---|---|
| Less than 45 | ☐ heparin 5000 units IV bolus | Increase rate by 150 units/hour (1.5 mL/hour)<br>Repeat PTT in 6 hours∗; Call MRP if 2 consecutive PTTs less than 45 seconds |
| 45 to 49 | 0 | Increase rate by 100 units/hour (1 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 50 to 70 (goal range) | 0 | no change<br>Repeat PTT Q6H∗ until 2 consecutive PTTs within therapeutic range, then monitor PTT once daily |
| 71 to 80 | 0 | Decrease rate by 50 units/hour (0.5 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 81 to 90 | 0 | Stop infusion for 30 min, then restart infusion AND decrease rate by 100 units/hour (1 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 91 or greater | 0 | Stop infusion for 60 min, then restart infusion AND decrease rate by 200 units/hour (2 mL/hour)<br>Repeat PTT in 6 hours∗<br>Call MRP if 2 consecutive PTTs greater than 90 seconds<br>For surgical patients, call MRP if any PTT greater than 90 seconds |

∗PTTs can be drawn in 6 +/- 1 hours

Printed Name | Signature | College ID | Contact Number

**HEPARIN INFUSION LOW PTT TARGET**

**ALL NEW ORDERS MUST BE FLAGGED**

**FAX COMPLETED ORDERS TO PHARMACY PLACE ORIGINAL IN PATIENT'S CHART**

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**APPENDIX 4 (Part 1 of 2). Non–weight-based dosage titration protocol for administration of unfractionated heparin with standard target for activated partial thromboplastin time ("after" group). © 2019 Providence Health Care. Reproduced with permission.**

**Non-Weight-Based Dosage Titration ("After" Group)**
**HEPARIN – STANDARD TARGET PROTOCOL**

DATE AND TIME

**HEPARIN INFUSION THERAPEUTIC PTT TARGET ORDERS**
(Items with check boxes must be selected to be ordered) Page 1 of 2

**Indications include treatment of deep vein thrombosis (DVT), pulmonary embolism (PE), peripheral arterial thrombosis and patients with mechanical heart valves.**

Patient Weight: _____ kg ☐ Actual ☐ Estimate

**LABORATORY:** Baseline PTT, INR and CBC with platelet count (contact prescriber if baseline PTT is elevated)
CBC with platelet count every 2 days while on heparin

**MEDICATIONS:** If patient on epidural infusion, contact Acute Pain Service (APS)/ Anesthesiology STAT and do not start heparin without their approval

Discontinue prior heparin, low molecular weight heparin, rivaroxaban, dabigatran, apixaban, fondaparinux, edoxaban orders

No IM injections while on heparin infusion

If possible, avoid non-steroidal anti-inflammatory drugs (NSAIDs)

| **Select initial heparin IV bolus, and heparin IV infusion** | | |
|---|---|---|
| **Patient weight** | **Initial Heparin IV Bolus 80 units/kg (max 10,000 units)** use heparin 10,000 units/10 mL **VIAL** | **Heparin IV infusion starting rate** use heparin 25,000 units/250 mL (100 units/mL) **BAG** |
| 26 to 35.9 kg | ☐ 2400 units (= 2.4 mL) bolus | ☐ 500 units/h |
| 36 to 45.9 kg | ☐ 3200 units (= 3.2 mL) bolus | ☐ 700 units/h |
| 46 to 55.9 kg | ☐ 4000 units (= 4 mL) bolus | ☐ 900 units/h |
| 56 to 65.9 kg | ☐ 4800 units (= 4.8 mL) bolus | ☐ 1100 units/h |
| 66 to 75.9 kg | ☐ 5600 units (= 5.6 mL) bolus | ☐ 1250 units/h |
| 76 to 85.9 kg | ☐ 6400 units (= 6.4 mL) bolus | ☐ 1400 units/h |
| 86 to 95.9 kg | ☐ 7200 units (= 7.2 mL) bolus | ☐ 1600 units/h |
| 96 to 105.9 kg | ☐ 8000 units (= 8 mL) bolus | ☐ 1800 units/h |
| 106 to 115.9 kg | ☐ 8800 units (= 8.8 mL) bolus | ☐ 2000 units/h |
| 116 to 124.9 kg | ☐ 9600 units (= 9.6 mL) bolus | ☐ 2200 units/h |
| 125 kg or greater | ☐ 10,000 units (= 10 mL) bolus | ☐ 2200 units/h |

Printed Name _____ Signature _____ College ID _____ Contact Number _____

**HEPARIN INFUSION THERAPEUTIC PTT TARGET**

**ALL NEW ORDERS MUST BE FLAGGED**
**FAX COMPLETED ORDERS TO PHARMACY PLACE ORIGINAL IN PATIENT'S CHART**

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**APPENDIX 4 (Part 2 of 2). Non–weight-based dosage titration protocol for administration of unfractionated heparin with standard target for activated partial thromboplastin time ("after" group). © 2019 Providence Health Care. Reproduced with permission.**

**Non-Weight-Based Dosage Titration ("After" Group)**

**HEPARIN – STANDARD TARGET PROTOCOL**

DATE AND TIME

**HEPARIN INFUSION THERAPEUTIC PTT TARGET ORDERS (regional)**

(Items with check boxes must be selected to be ordered) Page 2 of 2

**PTT-Adjusted Heparin Therapy Nomogram: THERAPEUTIC PTT TARGET – goal range 60 to 90 seconds**

**Instructions:**
Repeat PTT in 6 hours∗ until 2 consecutive PTTs are within therapeutic range, then monitor PTT once daily

| PTT (seconds) | Subsequent bolus | Rate Change |
|---|---|---|
| Less than 50 | heparin 5000 units IV bolus | Increase rate by 150 units/hour (1.5 mL/hour)<br>Repeat PTT in 6 hours∗; Call MRP if 2 consecutive PTTs less than 50 sec |
| 50 to 59 | 0 | Increase rate by 100 units/hour (1 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 60 to 90 (Goal range) | 0 | No change<br>Repeat PTT Q6H∗ until 2 consecutive PTTs within therapeutic range, then monitor PTT once daily |
| 91 to 100 | 0 | Decrease rate by 50 units/hour (0.5 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 101 to 110 | 0 | Stop infusion for 30 min, then restart infusion AND decrease rate by 100 units/hour (1 mL/hour)<br>Repeat PTT in 6 hours∗ |
| 111 or greater | 0 | Stop infusion for 60 min, then restart infusion AND decrease rate by 200 units/hour (2 mL/hour)<br>Repeat PTT in 6 hours∗<br>Call MRP if 2 consecutive PTTs greater than 110 sec<br>For surgical patients, call MRP if any PTT greater than 110 sec |

∗PTTs can be drawn in 6 +/- 1 hours

Printed Name | Signature | College ID | Contact Number

HEPARIN INFUSION THERAPEUTIC PTT TARGET

**ALL NEW ORDERS MUST BE FLAGGED**

**FAX COMPLETED ORDERS TO PHARMACY PLACE ORIGINAL IN PATIENT'S CHART**

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