**PTT Lab Reagent Change and Changes to Anticoagulation Goal Ranges**

* BJC Lab is using a new reagent for aPTT and PT testing – **reagent is already in use**
* Testing was performed by the lab to evaluate the new reagent in relation to the old reagent

***Epic Go-Live Wednesday, September 27th***

* Changes to goal ranges for anticoagulation orders utilizing aPTT – will impact heparin, bivalirudin, and argatroban (please see details for each below)
* Changes will impact all NEWLY PLACED orders
* All existing orders with old ranges will remain unless the order is discontinued and a new order is placed
* **CHECK ORDERED GOAL RANGES CLOSELY**

***Summary of goal range changes***

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| --- | --- | --- |
|  | ***Old goal PTT range (sec)*** | ***New goal PTT range (sec)*** |
| Standard Heparin Order Panel  | **60-94** | **66-100** |
| Heparin for Low PTT target range | **40-64** | **46-70** |
| Catheter-Directed Thrombolytics Ongoing | **< 60** | **< 66** |
| Heparin for CVVHDF without Citrate | **61-80** | **67-86** |
| Bivalirudin | **45-75** | **50-80** |
| Argatroban | **45-90** | **50-95** |

\*see following pages for details of titration changes

**HEPARIN ORDER PANELS**

Standard Heparin Order Panel (current goal PTT 60-94.9 sec) **– New goal range 66-100 sec**

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| **CURRENT Titration Instructions (goal PTT 60-94 sec)**  | **Proposed NEW PTT ranges (goal PTT 66-100 sec)** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| < 40  | Bolus (if ordered), then increase infusion dose by 3 units/kg/hr | < 46 | Same titration instructions |
| 40-50.9  | Bolus (if ordered), then increase infusion dose by 2 units/kg/hr | 46-55 |
| 51-59.9  | Increase infusion dose by 1 units/kg/hr (no bolus) | 56-65 |
| 60-94.9  | No change | 66-100 |
| 95-104.9 | Decrease infusion dose by 1 unit/kg/hr | 101-110 |
| 105-114.9  | Hold infusion X 30 minutes and decrease infusion dose by 2 units/kg/hr | 111-120 |
| ≥ 115 | Hold infusion X 1 hour and decrease infusion dose by 3 units/kg/hr | > 120 |

Heparin for Low PTT target range (current goal PTT 40-64 sec) – **New goal range 46-70 sec**

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| **CURRENT Titration Instructions (goal PTT 40-64 sec)**  | **Proposed NEW PTT ranges (goal PTT 46-70 sec)** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| < 30  | Increase infusion dose by 2 units/kg/hr | < 36 | Same titration instructions |
| 30-39.9  | Increase infusion dose by 1 units/kg/hr | 36-45 |
| 40-64.9  | No change | 46-70 |
| 65-74.9 | Decrease infusion dose by 1 unit/kg/hr | 71-80 |
| 75-84.9 | Hold infusion X 30 minutes and decrease infusion dose by 2 units/kg/hr | 81-90 |
| 85-94.9 | Hold infusion X 1 hour and decrease infusion dose by 3 units/kg/hr | 91-101 |
| ≥ 95 | Hold infusion X 1 hour and decrease infusion dose by 4 units/kg/hr | > 101 |

Catheter-Directed Thrombolytics Ongoing (current goal PTT <60 sec) – **new goal < 66 sec**

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| **CURRENT Titration Instructions (goal PTT <60 sec)**  | **Proposed Changes** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| < 60  | Continue heparin infusion | <66 | Same titration instructions |
| 61-90 | Decrease heparin infusion to 300 units/hr | 67-96 |
| 91-120 | Hold infusion X 2 hours and resume heparin at 250 units/hr | 97-126 |
| >120 | Stop infusion and notify radiologist STAT | >126 |

Heparin for CVVHDF without Citrate (current goal PTT 61-80.9 sec) – **new goal 67-86 sec**

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| **CURRENT Titration Instructions (goal PTT 61-80 sec)**  | **Proposed NEW PTT ranges(goal PTT 67-86 sec)** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| < 41  | Increase infusion dose by 200 units/hr | < 47 | Same titration instructions |
| 41-60.9  | Increase infusion dose by 100 units/hr | 47-66 |
| 61-80.9  | No change | 67-86 |
| 81-90.9 | Decrease infusion rate by 100 units/hr | 87-96 |
| 91-100 | Hold infusion X 30 minutes and decrease infusion rate by 200 units/hr | 97-106 |
| >100 | Hold infusion X 1 hour and decrease infusion rate by 300 units/hr | >106 |
| >100 X 2 | Stop infusion and notify ICU physician | >106 X2 |

**DIRECT THROMBIN INHIBITORS**

(PTT ranges determined by a multiple of the “baseline normal PTT”)
Mean and median are both 33 seconds for the new lot:

BIVALIRUDIN (current goal PTT 45-75 seconds; 1.5-2.5X baseline of 30 seconds) **– New goal 50-80 sec**

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| **CURRENT Titration Instructions (goal PTT 45-75 sec)**  | **Proposed NEW PTT ranges (goal PTT 50-80 sec)** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| <45  | Increase dose by 0.01 mg/kg/hr | <50 | Same titration instructions |
| 45-75 | No change | 50-80 |
| 76-90 | Decrease by 0.01 mg/kg/hr | 81-95 |
| >90 | Hold infusion X 1 hr and decrease by 0.02 mg/kg/hr | >95 |

ARGATROBAN (current goal PTT 45-90 seconds; 1.5-3X baseline of 30 seconds) – **New goal 50-95 sec**

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| **CURRENT Titration Instructions (goal PTT 45-90 sec)**  | **Proposed NEW PTT ranges (goal PTT 50-95 sec)** |
| **PTT Range (seconds)** | **Instructions** | **PTT Range (seconds)** | **Instructions** |
| <45  | Increase infusion by 0.5 mcg/kg/min | <50 | Same titration instructions |
| 45-90 | No change | 50-95 |
| 91-120 | Decrease infusion by 0.5 mcg/kg/min | 96-125 |
| >120 | Hold infusion X 1 hr and contact provider for further dosing instructions | >125 |