

Procedure

Target Group: All Physician and Nurse Caregivers Treating Stroke Patients	Original Date of Issue: 29/04/2015	Date of Last Review: 09/10/2019	Publication Date: 09/10/2019
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Purpose

To provide physicians and nurses at Cleveland Clinic Abu Dhabi (CCAD) with a standard protocol for using heparin to treat patients with stroke.

Procedure

1. Ordering
 - 1.1. This protocol will be initiated by a physician order.
 - 1.2. Subsequent orders specified by the protocol will be entered by a nurse as 'per protocol'.
 - 1.3. Subsequent orders not specified in the protocol will require a physician order.
2. Heparin Procedure
 - 2.1. This procedure is for stroke patients when lower range anticoagulation is desired.
 - 2.2. For stroke patients, no initial bolus is used.
 - 2.3. Initial infusion is weight based and is 12 units/kg/hour to a maximum of 1000 units/hour.
 - 2.4. Subsequent goal activated partial thromboplastin time (aPTT) is 53-71 seconds.
 - 2.5. The first aPTT is obtained 6 hours after the initial infusion is started.
 - 2.6. Subsequent adjustments and aPTT testing are based on the table below.
 - 2.7. Once 2 consecutive aPTTs (or 4 consecutive aPTTs in stroke patients) are within therapeutic range, repeat aPTT daily.
 - 2.8. Notify the Physician for 2 consecutive aPTT <53 or >71 seconds.
 - 2.9. For PTT values >150 sec consider holding the infusion for 1 hour and decreasing the infusion by 4 units/kg/hour.

3. Adjustment Table

PTT Results (sec.)	Bolus	Infusion	Next aPTT
<32.4	0	↑4 units/kg	6 hours
32.4-52.9	0	↑2 units/kg	6 hours
53-71.9	0	No change	6 hours
72-92.9	0	↓2 units/kg	6 hours
93-108.9	0	↓3 units/kg	6 hours
109-150	0 and hold infusion for 1 hour	↓4 units/kg	6 hours
>150	0 and call physician	Stop infusion and call physician	6 hours

Heparin Stroke Procedure

Oversight and Responsibility

1. Quality & Patient Safety Institute
2. Neurology Institute
3. Critical Care Institute
4. Pharmacy Services

Definitions

1. None

References

1. Cleveland Clinic Stroke Unfractionated Heparin Adult Patients

Institute / Department / Committee Involved in Procedure Development / Revision

1. Critical Care Institute
2. Pharmacy Services
3. Neurologic Institute

Contact for Questions / Clarifications

1. Institute Chair, Critical Care Institute
2. Director, Pharmacotherapy Services

Related or Supporting Documents

1. None

Abbreviations

1. CCAD – Cleveland Clinic Abu Dhabi
2. aPTT – Activated Partial Thromboplastin Time