

Hamilton Regional Laboratory Medicine Program - HRLMP (effective at Hamilton Health Sciences, St. Joseph's Healthcare and Associated Health Care Facilities)		
Initial Issue Date: Revision Date:	Administration Guidelines	Section: Laboratory Medicine Sub-Section: <i>Transfusion Medicine</i>
Title: Antithrombin III (Human)		Document Number:
Approved By: <i>Director, Laboratory Medicine Chair, Regional Transfusion Medicine Committee Head, Transfusion Medicine, HRLMP Manager, Transfusion Medicine, HRLMP Technical Specialist, Transfusion Medicine, HRLMP Chief of Nursing Practice, Hamilton Health Sciences Chief of Nursing Practice, St. Joseph's Healthcare</i>		Page 1 of 3

Purpose: To Establish the Indications and Administration of Thrombate III

Scope: All patient care areas across HHSC and St. Joseph's Healthcare

Definitions: Antithrombin III is a sterile, non-pyrogenic, stable, lyophilized preparation of purified human antithrombin III made from pooled human plasma.

Other Names: Thrombate III	Date Approved:	Pages: 1 of 3
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<p>INDICATIONS:</p> <ul style="list-style-type: none"> - Patients with hereditary Antithrombin III deficiency in connection with surgical or obstetrical procedures or when they suffer from thromboembolism.
<p>DOSAGE:</p> <ul style="list-style-type: none"> - Determined on an individual basis based on pretherapy plasma AT-III levels - Dosage can be calculated using the following formula for Bayer Thrombate - Units required (I.U.) = $\frac{(\text{desired} - \text{baseline AT-III level}) \times \text{weight (Kg)}}{1.4}$ - - Formula is based on an expected incremental in vivo recovery above baseline levels for Antithrombin III of 1.4% per IU per kg administered. - Dosage for Baxter Product- for DIC - for other AT III Defects - for DIC: Dose (in I.U.) = $\frac{\text{desired AT III activity (\%)} - \text{baseline AT III activity (\%)} \times \text{body weight (in Kg)}}{1\%}$ - - for other AT III Defects - Dose (in I.U.) = $\frac{\text{desired AT III activity (\%)} - \text{baseline AT III activity (\%)} \times \text{body weight (in Kg)}}{2\%}$

Antithrombin III (Human)

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SUPPLIED:

- Prepared from pooled human plasma from normal donors
 - Single use vials: 500 I.U. with 10 mL diluent
 - 1000 I.U. with 20 mL diluent
 - 1500 I.U. with 30 mL diluent
- } Stored between 2°C and 8°C
- Do not use after expiry date

RECONSTITUTION AND STABILITY:

- Preparation (including reconstituting, filtering, pooling if required) is performed in Transfusion Medicine
- See Manufacturer's information (package insert) for further information
- Reconstituted product should be used immediately

ADMINISTRATION:

- Product should not be further diluted

METHOD	WHO/WHERE	DILUTION	HOW TO ADMINISTER	INFUSION PUMP	PRECAUTIONS AND MONITORING
IV PUSH	RN	No	- Administer filtered product with administration needle - Entire dose in 10 to 20 minutes is generally tolerated	No	- Observe and monitor for mild to severe allergic reaction
MINIBAG/ BURETROL	RN	No	- Administer filtered product using a buretrol or sterile bottle with a vented administration set.	Yes	- Observe and monitor for mild to severe allergic reaction
PRIMARY IV BAG	N/A	N/A	N/A	N/A	N/A
IM or SC	N/A	N/A	N/A	N/A	N/A

COMPATIBILITIES/INCOMPATIBILITIES:

- Once reconstituted, Antithrombin III should be given alone without mixing with other agents or diluting solutions
- Effect of heparin is enhanced; recommend reducing dosage of heparin during administration of Antithrombin III
- In patients with hemorrhagic diathesis combined use of antithrombin III and heparin will increase the risk of bleeding

ADVERSE EFFECTS:

- Possible side effects: dizziness, chest tightness, nausea, foul taste in mouth, chills, cramps, shortness of breath, chest pain, film over eye, light-headedness, bowel fullness, hives and oozing and hematoma formation

NOTE: allergic reaction can occur with an infusion even though the patient has used the product in the past

MANAGEMENT OF ADVERSE EFFECTS:

- Notify physician
- Notify Transfusion Medicine
- Infusion rate should be decreased or if indicated, the infusion should be interrupted until symptoms abate
- Epinephrine should be available for treatment of severe allergic symptoms

NOTES:

- Thrombate III manufactured by Bayer corporation
- Antithrombin III - manufactured by Immuno
- Distributed by Canadian Blood Services

Documentation:

Issue transfuse sheets or requisitions with lot numbers must be included in patient's chart. Written consent for transfusion must be obtained prior to administration.

References:

Package Insert-Antithrombin III(Human) Thrombate III[®], Bayer Corporation, May 1996

Developed By In Consultation With

Transfusion Medicine Operations Group

REVIEW DATES:

REVISION DATES: