Victorian State Trauma System Guideline

Anticoagulation in Trauma

RAUMA VICTORIA

Make early contact with ARV for advice from the major trauma services and to initiate retrieval.

- Early identification of coagulation status is vital to initial management.
- Bleeding can rapidly become life threatening in the patient taking oral anti-coagulants.
- Early consultation with trauma services and haematologist via ARV will guide ongoing management.

Initial Assessment

- Complete primary survey and identify likely source and level of bleeding.
- Identify which Oral Anti-Coagulant (OAC) the patient is taking and time of last dose.
- Perform baseline laboratory assessment: Hb, APTT, INR if on Warfarin and where available specific drug levels.
- Creatinine should be measured to identify presence of any pre-existing renal or hepatic impairment.
- Organise blood group and hold, antibody screen.

Early consultation with trauma services and haematologist via ARV is advised to direct treatment and to facilitate early retrieval

Mild Bleeding	• Local haemostatic measures. • Consider withholding next dose of OAC or discontinue as appropriate (thrombosis vs bleeding risk).		
Clinically significant bleeding (reduction in Hb >20g/L, transfusion of >2 units of red cells in 1 hr)	• Administer oral charcoal if OAC ingested <2 hr prior (if safe to do so) and discontinue OAC. • Apply local haemorrhage control techniques & consider surgical or radiological intervention to identify and treat bleeding source • Maintain adequate hydration to aid in drug clearance. • Transfusion of red cells should be administered as clinically appropriate. Platelet transfusion should be considered in patients on concurrent anti platelet therapy or with significant thrombocytopenia (platelet <50 x 109/L). Use FFP if concerned about dilutional coagulopathy. • Contact retrieval services for haematology advice and to initiate retrieval & transfer to a MTS. • Continuously monitor haemodynamic status.		
Life threatening bleeding (bleeding in critical area or organ (intraocular, intracranial, intraspinal, compartment syndrome, retroperitoneal or pericardial), hypotension not responding to resuscitation).	**Vitamin K Antagonist** (Warfarin)	**Direct Factor Xa inhibitor** (Rivaroxaban, Apixaban)	**Direct Thrombin inhibitor** (Dabigatran)
	• Institute above clinical measures. • Consider use of one of the following agents: - *Prothrombinex – VF 25-50 units/kg IV - *FEIBA 50 IU/kg. - Tranexamic acid 15-30 mg/kg IV +/- infusion for mucosal bleeds. - Vitamin K 5-10mg slow IV injection for full reversal in 12-24 hours (only if on Warfarin).	• Institute above clinical measures. • Consider use of one of the following agents: - *Prothrombinex – VF 25-50 units/kg IV - *FEIBA 50 IU/kg. - Tranexamic acid 15-30 mg/kg IV +/- infusion for mucosal bleeds. - Recombinant factor VIIa (Novoseven) IV bolus 50mcg/kg may be trialled if critical bleeding. Discuss with haematology. Patient approval should be obtained as per local procedure for its use in non-haemophiliac patients who have failed to respond to conventional therapy.	• Institute above clinical measures. • Consider use of one of the following agents: - *Prothrombinex – VF 25-50 units/kg IV. - *FEIBA 50 IU/kg. - Tranexamic acid 15-30 mg/kg IV +/- infusion for mucosal bleeds. - Consider dialysis for Dabigatran where an excessively prolonged APTT >80s or dabigatran level >500ng/mL and/or impaired renal function. Dialysis can remove approximately 60% of the drug over 3-4 hours. - Consider Idarucizumab administration after haematology approval. The complete dose of 5g should be given as two consecutive IV infusions over 5-10 minutes each no more than 15 minutes apart).

*This is an off license use of FEIBA and Prothrombinex-VF and the risk of thrombotic complications with these agents when used for this indication is unclear. Their use is supported by laboratory data but clinical evidence supporting the improvement in patient outcomes is lacking.

Adapted from Tran, H. Joseph, J. Young, L. McRae, S. Curnow, J, Nandurkar, H. Wood, P. and McLintock, C. New oral anticoagulants: a practical guide on prescription laboratory testing and peri-procedural / bleeding management. Int Med J. 2014;(44):525-36

ARV Adult Retrieval Victoria

1300 36 86 61 Statewide 24 hours

28/07/2017 | Version 1.0 | Not applicable to Paediatric patients | Contact us: Trauma.Victoria@ambulance.vic.gov.au

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