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Full Title of Guideline:	**2378 - Emergency Management of Bleeding in patients taking Anticoagulant, Antiplatelet or Fibrinolytic Drugs**
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Division & Speciality:	Cancer and Associated Specialities Clinical Haematology Haemostasis & Thrombosis
Version:	11 (April 2024)
Ratified by:	Haemostasis and Thrombosis group Drugs and Therapeutics Committee (DTC)
Scope ***(Target audience, state if Trust wide):***	Trust wide
Review date ***(when this version goes out of date):***	April 2025
Explicit definition of patient group to which it applies ***(e.g. inclusion and exclusion criteria, diagnosis):***	All patients where information on the emergency management of bleeding when taking one of these agents may be required.
Changes from previous version ***(not applicable if this is a new guideline, enter below if extensive):***	Links to other guidelines updated. Amended PCC dosing in patients on vitamin K antagonists to align with respective trust guideline. Added Andexanet alfa to reversing agent column.
NICE guidance reference:	Not applicable
Summary of evidence base this guideline has been created from:	Information drawn together from various sources into one summary document: • Summary of Product Characteristics • National and International Guidelines • Expert Opinion
This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert. Caution is advised when using guidelines after the review date or outside of the Trust.	

Emergency Management of Bleeding: Anticoagulant, Antiplatelet or Fibrinolytic Drugs

NB: If bleeding occurs whilst patient is taking any of these drugs:
- Stop drug immediately
- Resuscitate and treat hypovolaemia
- Check FBC, coagulation screen and fibrinogen (+/- specific assays depending on agent being used)

For specific measures see table below +/- contact Clinical Haematology On Call for advice (although many of these drugs have no true reversal agent)

Anticoagulant drugs

Drug	Half life	Reversing agent	Dose/Comments
Apixaban	12 hours	**Andexanet alfa**	• Check Apixaban level (but don't wait for result to guide management). • Consider prothrombin complex concentrate in life-threatening bleeding (or Andexanet alfa in the context of GI bleeding) • See trust guideline 2805 (Link)
Argatroban	45 mins	**None**	• Stop infusion
Bivalirudin	25 mins (1 hour in severe renal impairment; 3.5 hours in dialysis)	**None**	• Stop infusion
Dabigatran	12-17 hours	**Praxbind (idarucizumab)**	• Check thrombin time (TT) +/- Dabigatran level • See trust guideline 2173 (Link)
Danaparoid	24 hours	**None**	• Check Danaparoid level • Consider plasmapheresis
Edoxaban	10-14 hours	**None**	• Check Edoxaban level (but don't wait for result to guide management). • Consider prothrombin complex concentrate in life-threatening bleeding • See trust guideline 2805 (Link)
Fondaparinux	17-21 hours	**None**	• Check Fondaparinux level • Consider rVIIa for critical bleeding
LMWH	Enoxaparin 4-5 hours	**Protamine** Incomplete reversal	• Check Heparin (anti-Xa) level (specifying LMWH) • If <8 hours post dose give protamine (50mg if normal renal function) • If >8 hours post dose check anti-Xa level and consider 25mg protamine • Consider rVIIa if continued life threatening bleeding
Oral vitamin K antagonists	Acenocoumarol 8-11 hours Phenindione 5-10 hours Warfarin 20-60 hours	**Vitamin K**	• Check INR • Dose of Vitamin K will depend on severity of bleeding & INR • Consider prothrombin complex concentrate in life-threatening bleeding (if INR 1.6-2.9 give 1000u, 3.0-5.0 give 2000u, >5.0 give 3000u) • See trust guideline 2401 (Link)
Rivaroxaban	7-11 hours	**Andexanet alfa**	• Check Rivaroxaban level (don't wait for result to guide management). • Consider prothrombin complex concentrate in life-threatening bleeding (or Andexanet alfa in the context of GI bleeding) • See trust guideline 2805 (Link)
Unfractionated heparin (UFH)	Dose dependent 0.7-2.5 hours	**Protamine**	• Stop infusion • Protamine dose 1mg per 100IU (maximum single dose 50mg) • If over 15 mins since infusion stopped, lower doses needed

Antiplatelet drugs

Drug	Half-life	Reversing Agent	Dose/Comments

Abciximab	Initial phase <10 mins
	2nd phase 30 mins
		None	• Consider anti-fibrinolytics e.g. tranexamic acid
			• Consider platelet transfusion (1 adult dose) if:
			  ○ Life-threatening bleeding
			  ○ Abciximab associated platelet count <10

Aspirin	Dose dependent 2.5-9 hours		• Consider anti-fibrinolytics e.g. tranexamic acid
			• Consider platelet transfusion (1 adult dose) if:
			  ○ Life-threatening bleeding
			  ○ NOT indicated for spontaneous intracranial haemorrhage
			  ○ NOT indicated for prophylactic use (e.g. pre-procedure)

Clopidogrel	7-8 hours		
Dipyridamole	0.4-10 hours		• Xanthine derivatives e.g aminophylline may reverse haemodynamic effects
Tirofiban	90-180 mins		• Consider Haemodialysis

Fibrinolytic drugs

Drug	Half life	Reversing agent	Dose/Comments
Alteplase	4-5mins	**None**	• Stop infusion • Consider anti-fibrinolytics e.g. tranexamic acid • Monitor fibrinogen and consider cryoprecipitate if fibrinogen <1.0
Reteplase	18 mins		
Streptokinase	80 mins		
Tenecteplase	24 mins		