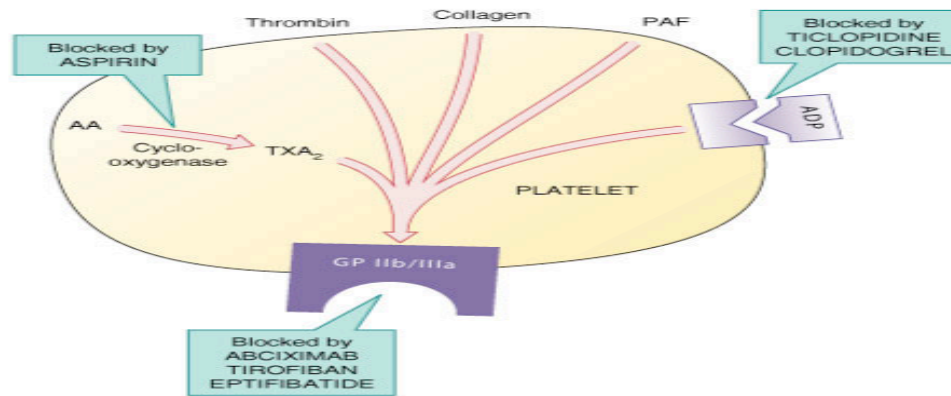


Anticoagulant Drugs				
Drug	MOA	Admin	AEs	Notes
Heparin (unfract)	Prevents conv of prothrombin → thrombin, by activation of AntIII (prevents act of factor X). Less thrombin, less clotting.	IV, cont flow. No PO. Onset < 1 hr. Rate of infusion dep on pt aPTT (slide 29); want = 2x norm. Check often.	NSAIDS might be contraindicated. Thrombocytopenia. Overdose.	Pregnancy: OK
Heparin- Low Molecular Weight (fractionated)	Inhibit activation of factor X, but not of thrombin.	SubQ; fixed dose (@ home OK)., no aPTT monitoring.	Same contraindications as heparin, but less eff. No thrombocyt	Enoxaparin, ardeprin, dalteparin, tinzaparin
Warfarin	Inhibits synth of some clotting factors (II, VII, IX & X) by inhibiting Vit K binding.	PO	Less/more effective w/ Vit K abundance/def	Coumadin (trade name)
Platelet drugs				
Clopidogrel (pro-drug; activated @ 1 st pass) and ticlodipine	Inhibit platelet aggregation (diff than aspirin) via irreversible inactivation.	T- 250 mg bid, w/ food. C – 75 mg per day w/ food. W/ aspirin (81 mg) 4 prophylaxis. NO drugs b4 surgery b/c bleeding. CBCs, blding time 4 platelet function.	GI (take w/ food), hemorrhage. T – hematologic effects (neutropenia, etc.) → infection, thrombocyt, thrombolytic purpura (TTP). C–no such prob.	Used for: prophylaxis, atherosclerotic events in MI/stroke pts, pts at risk for MI/stroke, CABG (cor art bypass grafting) pts, angioplasty (repairment of vessels).
Glycoprotein Receptor Antagonists	Reversible blockade of platelet ‘GP IIb/IIIa’ receptors; inhibit the final step in aggregation.	IV, b/c protein, used short term to prevent ischemic events in pts w/ acute coronary syndromes.		Abciximab: fragment of an Abs that blocks the receptor. Eptifibatide: small peptide that blocks the receptor
Thrombolytic drugs: Plasminogen activators (to dissolve clot)				
Alteplase, tenecteplase, reteplase	tPA (tissue plasminogen activator) takes plasminogen → plasmin (which degrades clot). tPA produced via recombinant DNA tech.	To be effective, give after onset of symp.		For: embolic strokes, pulmonary emboli, arterial embolism, MIs

Streptokinase	Similar to previous but cheaper. Purified from streptococcal bacteria.	Intra-arterially (as clotted site) or IV.	Foreign protein → allergic reactions possible.	For: thrombotic strokes (would worsen hemorrhagic stroke)
RBC production	Epoetin Alfa (Procrit) or Darbepoetin Alfa (longer duration). For: Renal failure and chemotherapy induced anemia			
Erythropoietin	Admin: SubQ, IV (no PO b/c protein); don't shake vial. Monitor: hematocrit (target + 36%) & Fe levels			
Neutropenia				
Filgrastin (protein)		Short 1/2 life		
Pegfilgrastin (encased)	Admin less frequently. Monitor WBC, 24+ after chemo, F = IV or SC, P = CS, don't shake vials		Bone pain (expansion) → use NSAIDs or opioids	For: febrile neutropenia (complication of chemo)

A Platelet Activation



B Platelet Aggregation

