

ANTICOAGULANTS AND TESTING

DRUG	LAB	OTHER
Aspirin	Bleeding time	Platelet Life of platelet (7-10 days)
Clopidogrel	Bleeding time	Platelet Stop 7 days before surgery
Ticlopidine	Bleeding time	Platelet Stop 4 days before surgery
Coumadin	PT/INR (INR 2-3 is target)	Reversal is Vitamin K
Heparin	PTT (goal is 2 times normal) ACT (> 400 seconds for CABG)	Reversal is protamine
Lovenox	PTT	Reversal is protamine
Abciximab	ACT (200-400 seconds)	Stop 72 hours before surgery No antidote
Eptifibatide	ACT (200-400 seconds)	Stop 24 hours before surgery No antidote
Tirofiban	ACT (200-400 seconds)	Stop 24 hours before surgery Hemodialysis

Aspirin irreversibly inactivates cyclooxygenase for the life of the platelet (7-12 days or 1-2 weeks).

NSAIDs reversibly inactivate cyclooxygenase, generally for a period of 24-96 hours (1-4 days).

All clotting factors except IV (calcium), VIII:vWF (Von Willebrand's factor) and tissue factor (thromboplastin, factor III) are produced in the liver.

Factor VIII:vWF is made in endothelial cells and is necessary for platelet adhesion to subendothelial structures (collagen) when endothelial damage occurs. Factor VIII:vWF also regulates the production and release of factor VIII:C.

Vitamin K dependent clotting factors are II, VII, IX and X.

Fresh frozen plasma (FFP) contains all coagulation factors except platelets. The most abundant factors in FFP are Factors V and VIII, which also happen to be the most labile.

The **sickle cell** patient *needs to be kept warm and hydrated, supplemented with oxygen, maintain a high cardiac output, and avoid stasis (vasoconstriction, tourniquets, and pressure).*

The minimum H/H for elective surgery is 7/20.

Tsui, P.Y., Cheung, C.W., Lee, Y. *et al.* The effectiveness of low-dose desmopressin in improving hypothermia-induced impairment of primary haemostasis under influence of aspirin – a randomized controlled trial. *BMC Anesthesiol* **15**, 80 (2015). <https://doi.org/10.1186/s12871-015-0061-5>

Ellenberger, C., Garofano, N., Barcelos, G. *et al.* Assessment of Haemostasis in patients undergoing emergent neurosurgery by rotational Elastometry and standard coagulation tests: a prospective observational study. *BMC Anesthesiol* **17**, 146 (2017). <https://doi.org/10.1186/s12871-017-0440-1>