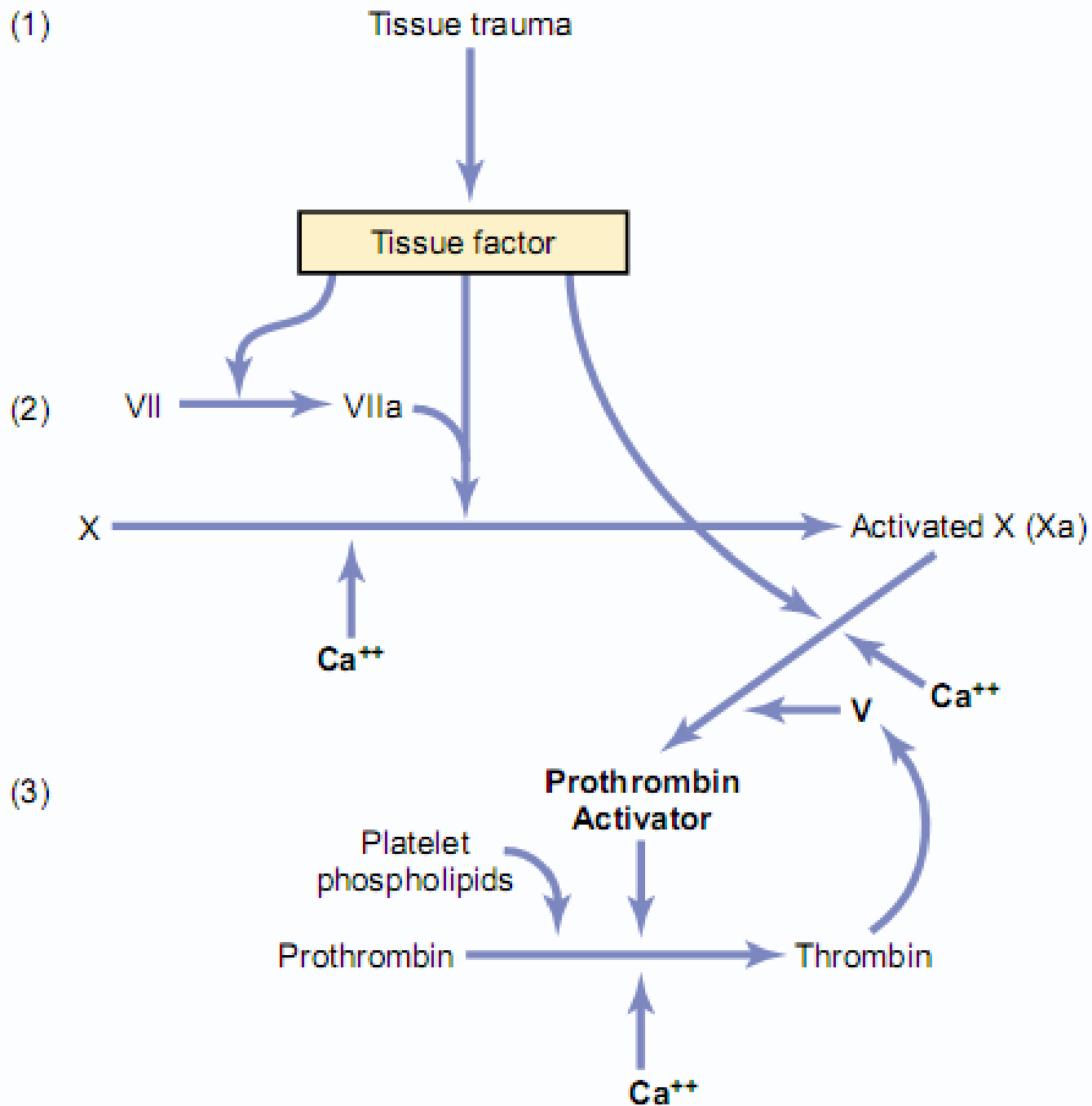


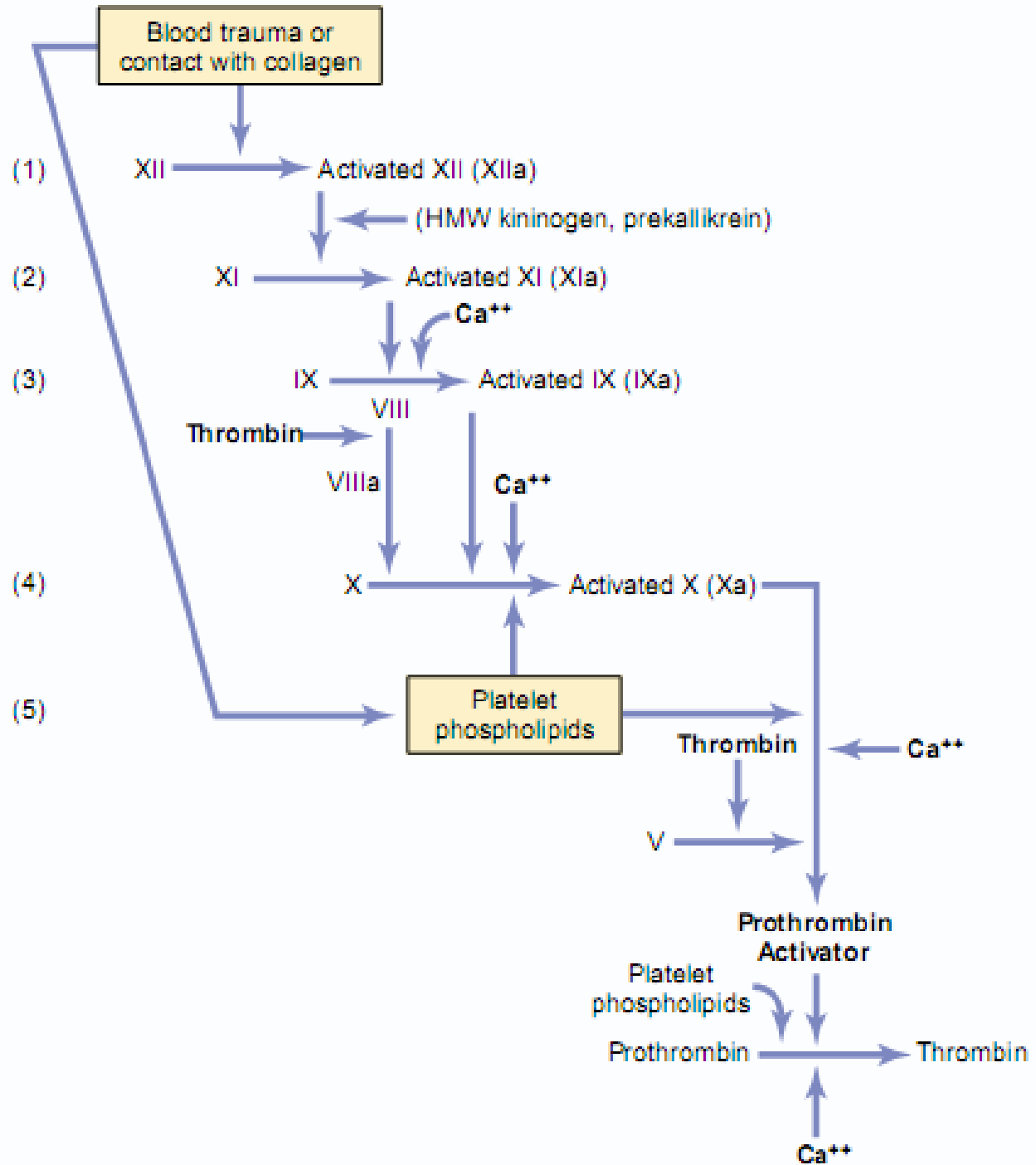


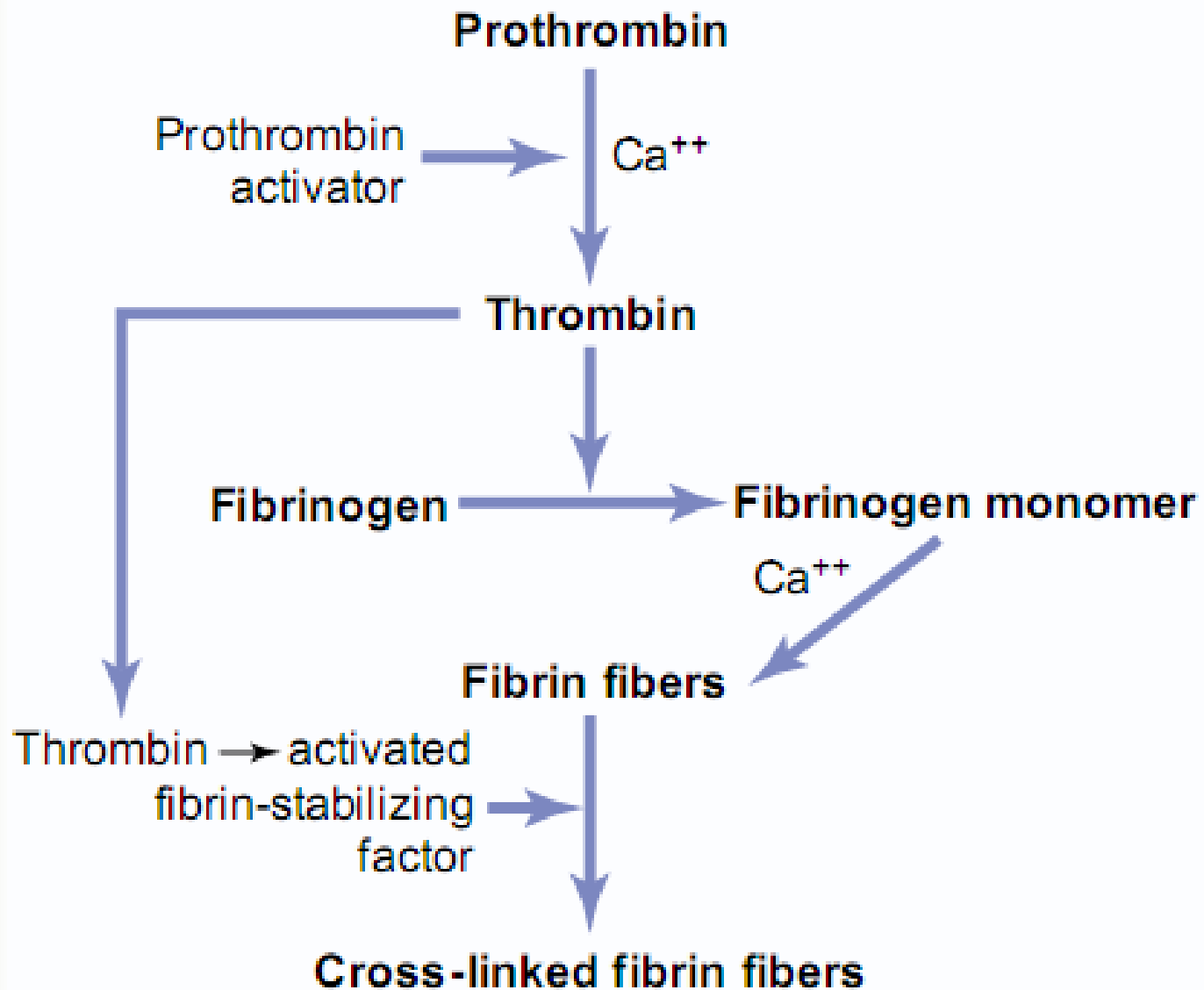
Antikoagulan, Antitrombotik, Trombolitik, Hemostatik

Beberapa Istilah

- Hemostasis
 - Koagulasi
 - Trombosis
- Antikoagulan
- Antitrombotik
 - Trombolitik
 - Hemostatik









Endothelial cells

PAI-1
PAI-2

t-PA

Plasminogen

Plasmin

α_2 -AP

Fibrin

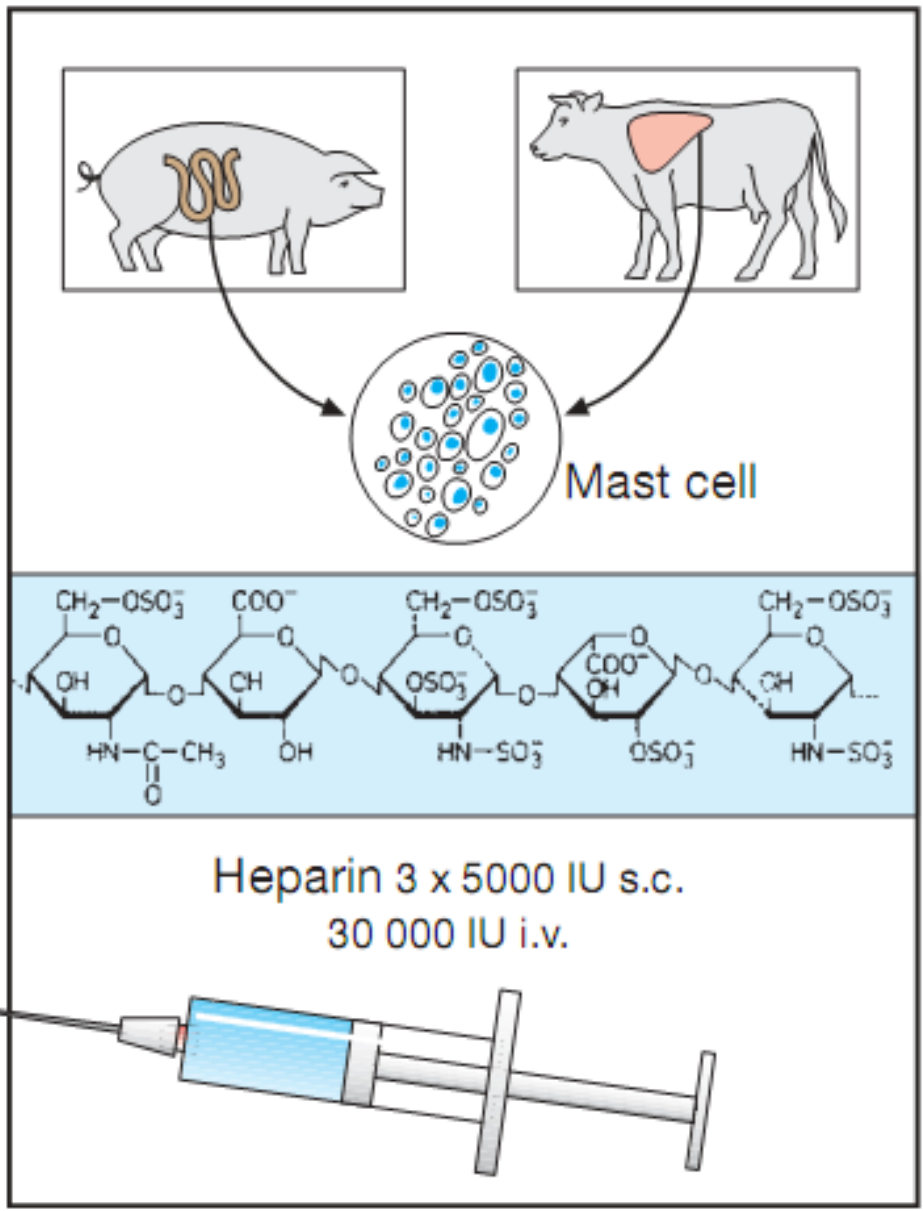
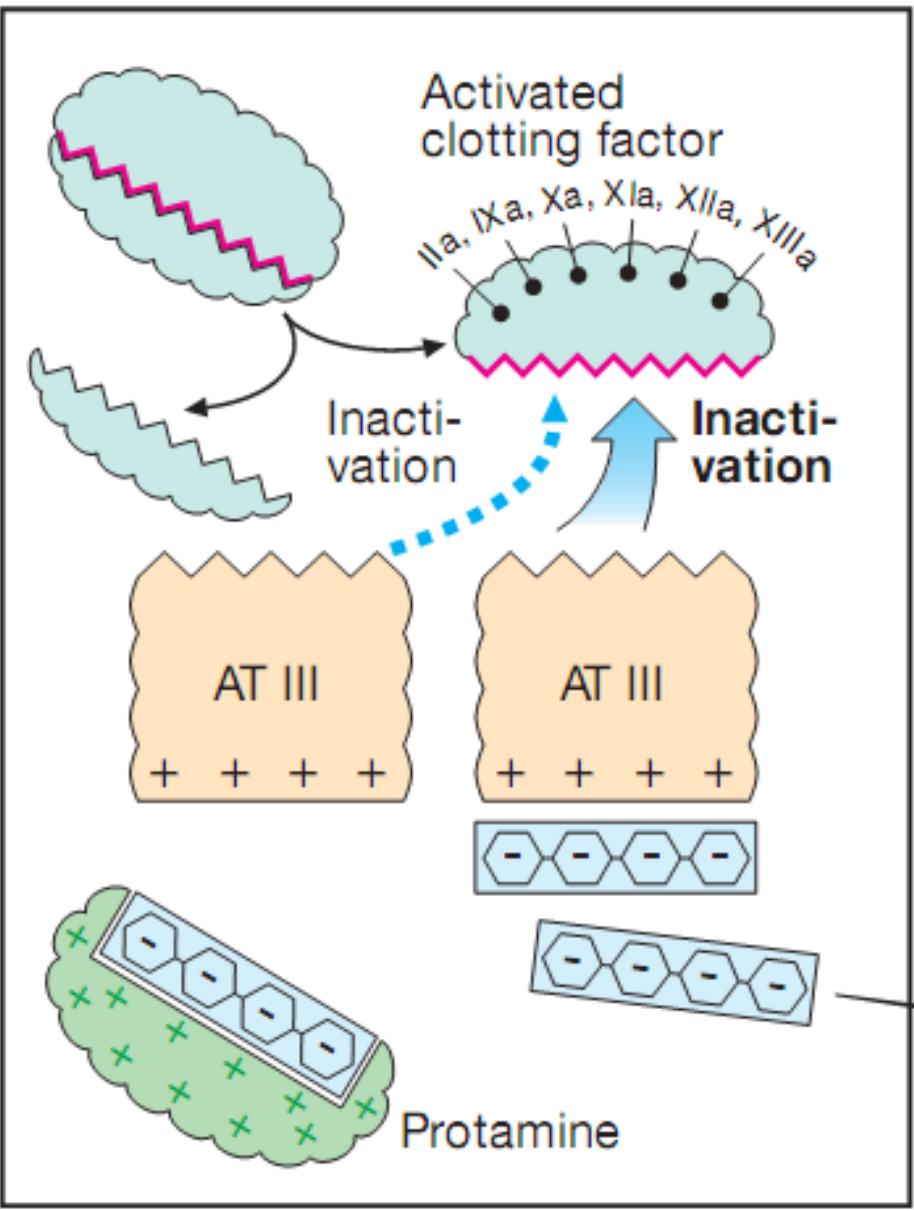


Smooth muscle cells/macrophages

Antikoagulan

- Heparin
- Warfarin



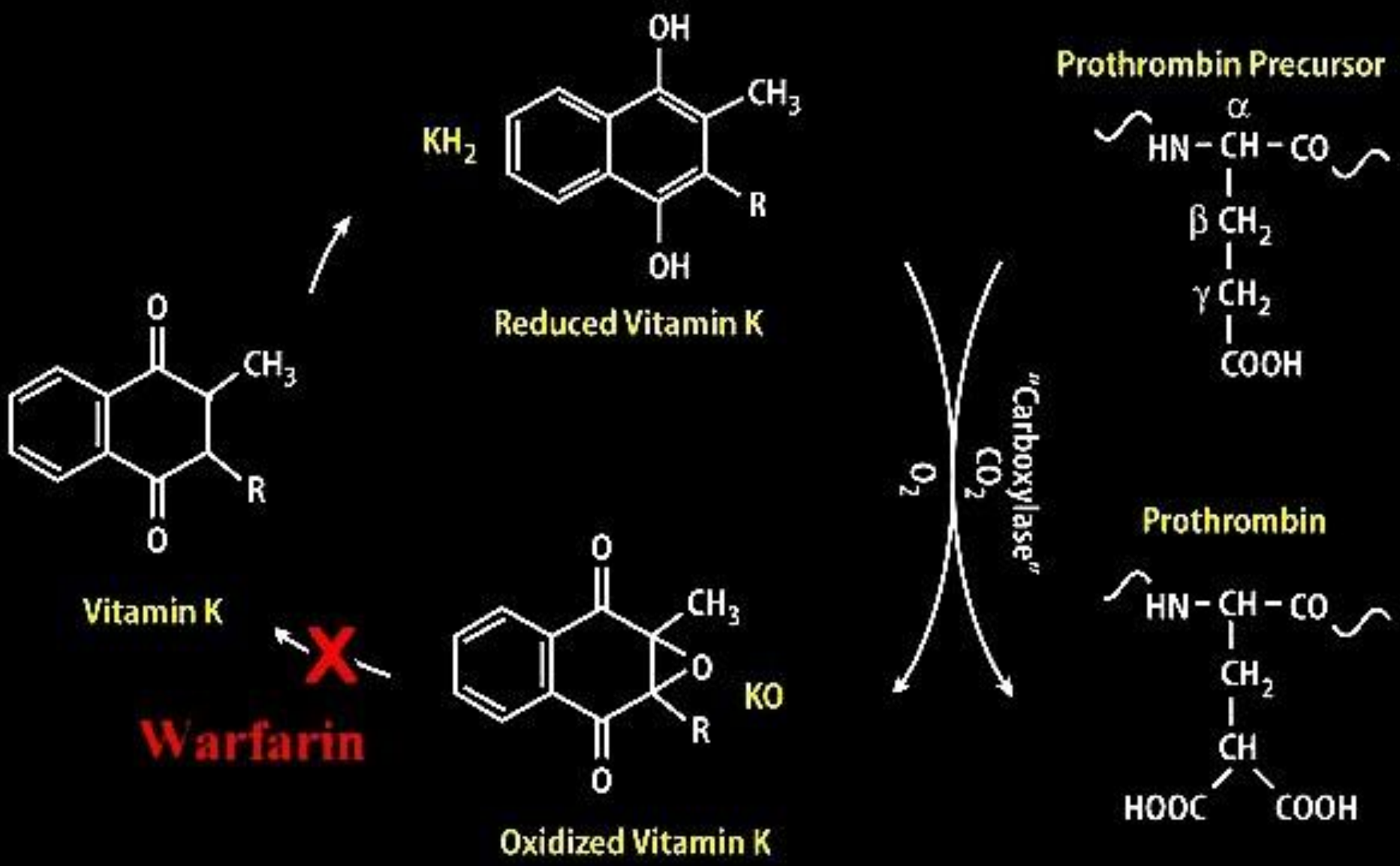




Antikoagulan

- LMWH
- Bemiparin, dalteparin, enoxaparin, reviparin
- *Monitoring* pemeriksaan darah
- Indikasi: trombosis vena, emboli paru, PJR, penyakit jantung iskemik

Mechanism of Action





Antitrombotik

Aspirin

Dipiridamol

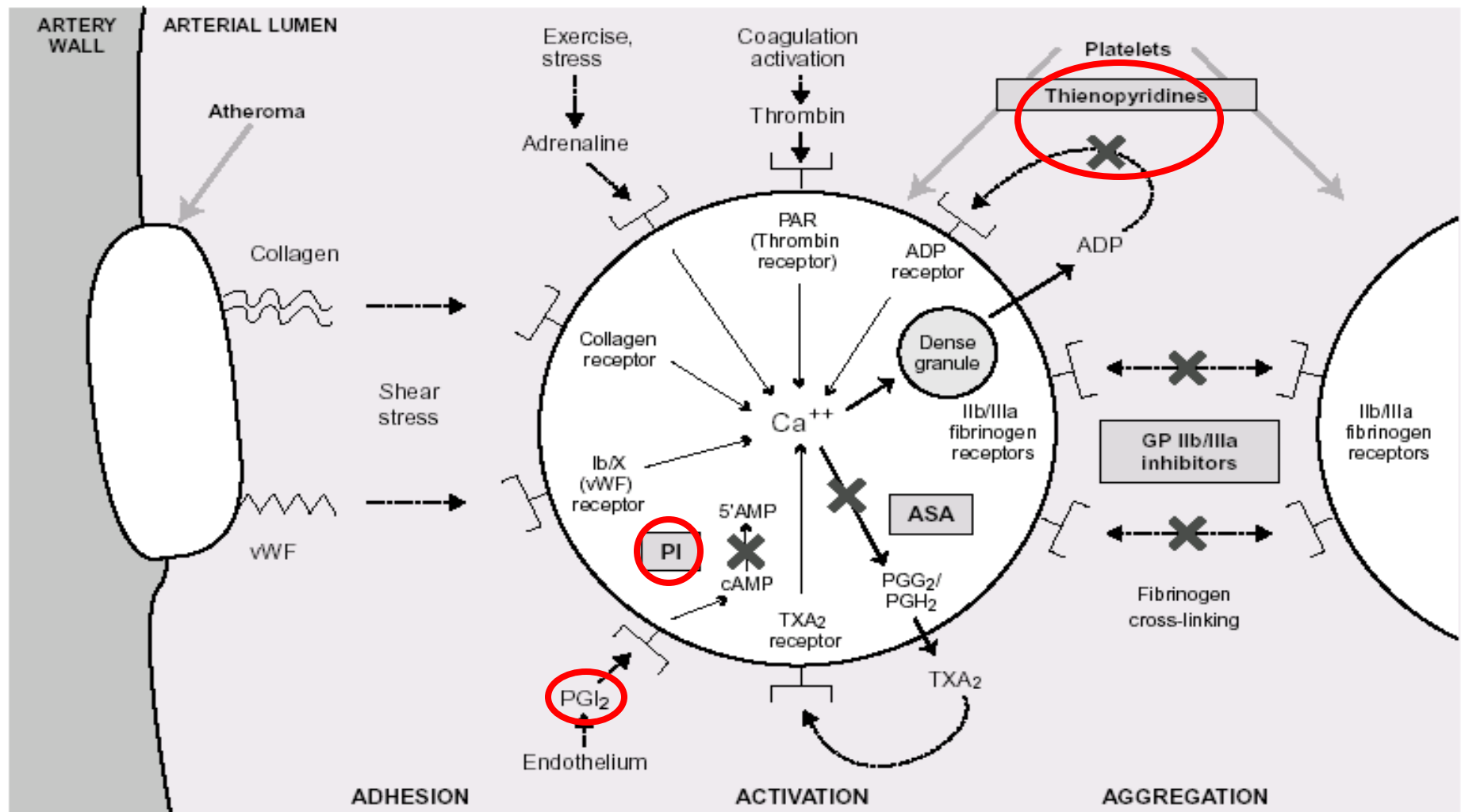
Tiklopidin

Klopidogrel

Epoprostenol

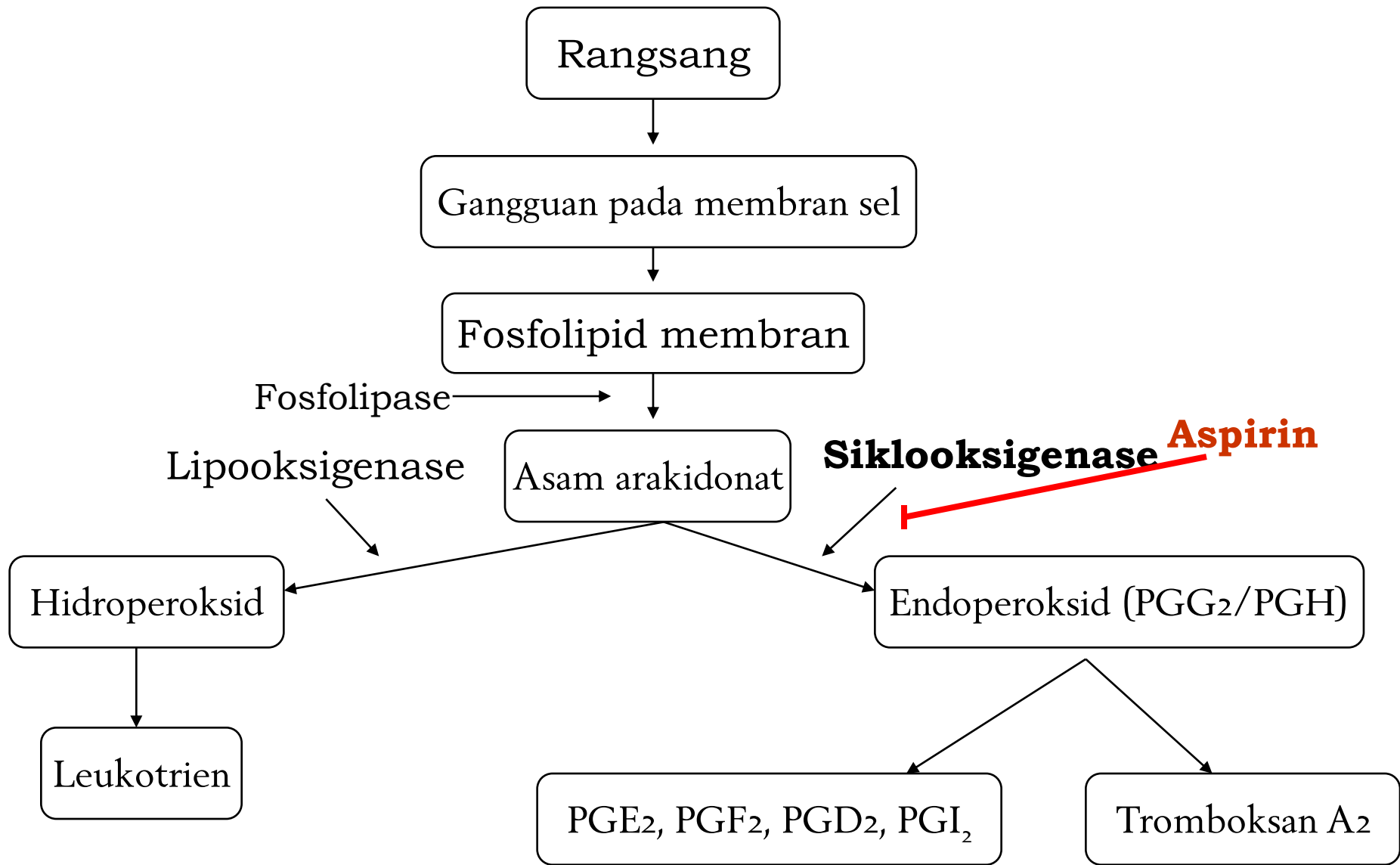


1: Pivotal role of platelets in thrombosis and the sites of action of currently approved antiplatelet drugs



Adhesion of platelets to proteins (collagen, von Willebrand factor), particularly under conditions of high shear stress, and the action of platelet agonists (adrenaline, thrombin, ADP, thromboxane A₂) leads to the mobilisation of calcium ion (Ca⁺⁺), which functions as a mediator of platelet activation. Aspirin inhibits thromboxane A₂ synthesis by irreversibly acetylating cyclooxygenase-1; the thienopyridines (clopidogrel, ticlopidine) irreversibly block the ADP receptor; and glycoprotein IIb/IIIa inhibitors block the final common pathway of platelet activation leading to fibrinogen cross-linking of platelets and platelet aggregation. Phosphodiesterase inhibitors (dipyridamole, cilostazol) elevate intracellular cyclic AMP levels and thereby inhibit platelet function.

ADP = adenosine diphosphate; ASA = aspirin; cAMP = cyclic adenosine monophosphate; GP = glycoprotein; PGG₂ = prostaglandin G₂; PAR = Protease activated receptor; PGH₂ = prostaglandin H₂; PGI₂ = prostacyclin; PI = phosphodiesterase inhibitor; TXA₂ = thromboxane A₂; vWF = von Willebrand factor.



A photograph on the left side of the slide shows a male doctor in a white lab coat leaning over a patient lying in a hospital bed. The patient is wearing a blue hospital gown. The background is slightly blurred, showing a typical hospital room setting.

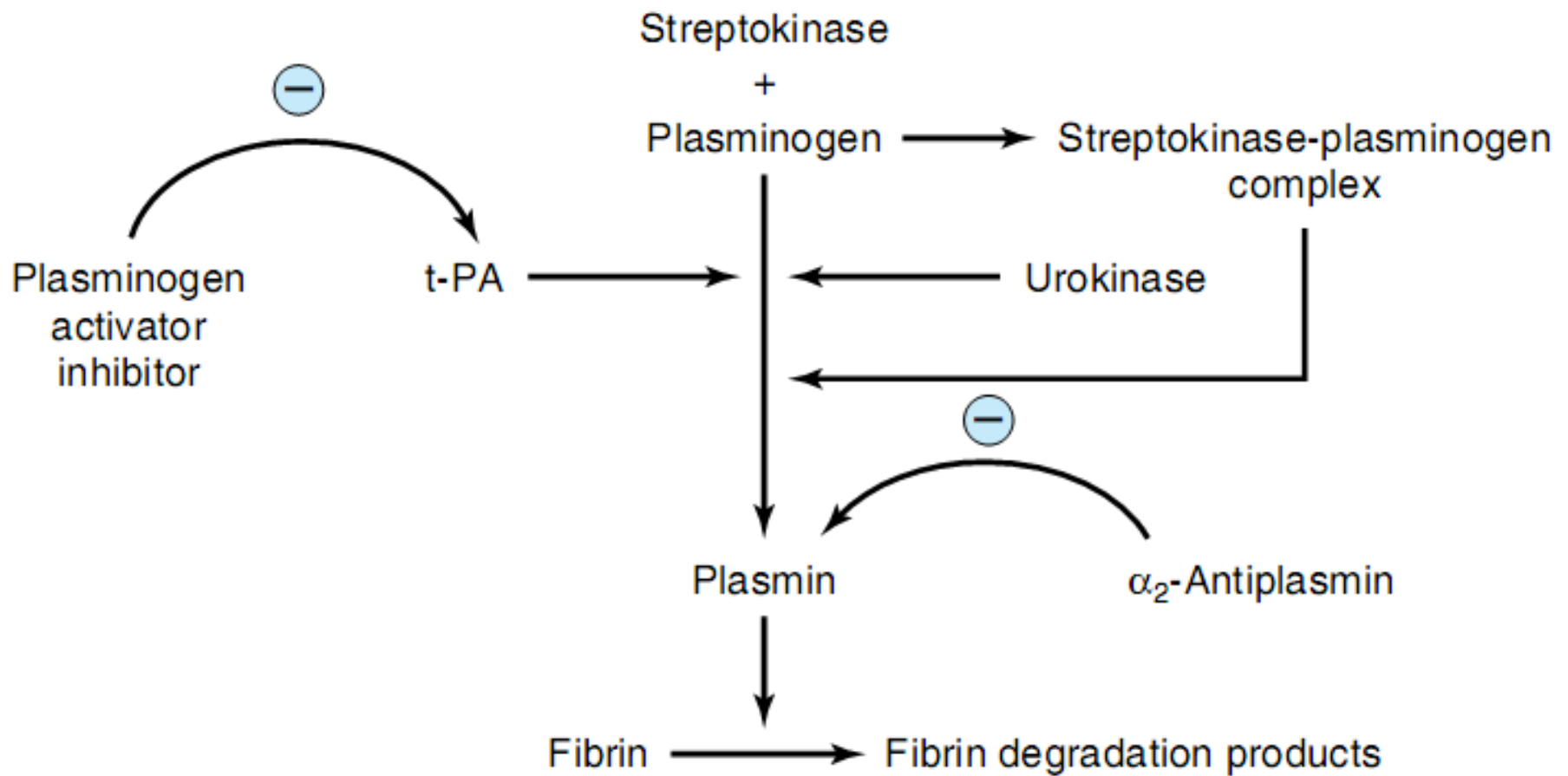
Antitrombotik

- Indikasi: cegah trombosis pada TIA/stroke, infark miokard, bedah kardiovaskuler, Raynaud's phenomen

Trombolitik

- Streptokinase
- Urokinase
- *Plasminogen activator*
(u-PA, t-PA)





Trombolitik

- Indikasi: infark, emboli paru, trombosis vena/arteri
- Mahal





Hemostatik

- Transfusi
- Faktor VIII
- Kompleks faktor II, V, IX, X
- Fibrinogen
- Vitamin K
- Asam aminokaproat
- Asam traneksamat
- Karbazokrom