

Key Notes	Adverse Effects	Uses (Indications)	Monitoring	Route	Mechanism of Action	Drug / Class	Category
More aggressive than antiplatelets <small>Pharmacology/HLS/1/Anticoagulants/T.pdf</small>	Bleeding	AF, DVT, PE, stroke prevention	—	—	Interfere with clotting factors → prevent clot formation	—	Anticoagulants (General)
Not oral, no IM , does NOT cross placenta <small>Pharmacology/HLS/1/Anticoagulants/T.pdf</small>	Bleeding, HIT, osteoporosis, alopecia	Emergency, hospital use	aPTT (1.5–2.5× normal)	IV / SC	Activates antithrombin III → inhibits IIa (thrombin) & Xa	Heparin	Unfractionated Heparin (UFH)
Longer duration (once daily) <small>Pharmacology/HLS/1/Anticoagulants/T.pdf</small>	osteoporosis و HIT أقل	DVT/PE, home use	Anti-Xa (not aPTT)	SC	Inhibits factor Xa > thrombin	Enoxaparin	LMWH
Protamine does NOT reverse it	Minimal HIT risk	Alternative anticoagulant	No routine monitoring	SC	Only <i>mainly</i> inhibits factor Xa	Synthetic	Fondaparinux
Used instead of heparin	Bleeding	HIT patients	aPTT	IV	Directly inhibit thrombin (IIa)	Argatroban, Bivalirudin	Direct Thrombin Inhibitors (Parenteral)
Fast onset	Bleeding	AF, DVT, PE	No routine	Oral	Direct thrombin inhibition	Dabigatran	DOACs – Direct Thrombin inhibitor
Fixed dose	Bleeding	AF, DVT, PE	No routine	Oral	Inhibit factor Xa	Rivaroxaban, Betrixaban	DOACs – Factor Xa inhibitors
Slow onset → need heparin overlap <small>Pharmacology/HLS/1/Anticoagulants/T.pdf</small>	Bleeding, skin necrosis, teratogenic	AF, prosthetic valves, long-term anticoagulation	PT / INR (2–3)	Oral only	Inhibits Vit K epoxide reductase → ↓ factors II, VII, IX, X	Vitamin K antagonist	Warfarin (Oral)

HIT (Heparin-Induced Thrombocytopenia)

Warfarin Adverse Effects

WARFARIN

- W - Wound healing delayed
- A - Antidote is Vitamin K
- R - Rash
- F - Fetal Warfarin Syndrome if used during pregnancy
- A - Alopecia
- R - Requires monitoring of INR
- I - Interacts with many drugs and foods
- N - Necrosis, skin (early adverse effect)

@doc_reel

MEDNOTE COLLECTION

HEPARIN

MNEMONIC FOR SIDE EFFECTS

TO DEATH

FOR MNEMONIC OF SIDE EFFECTS OF HEPARIN REMEMBER :

TO DEATH

- T - THROMBOCYTOPENIA.
- O - OSTEOPOROSIS.
- D - DEATH BY OVERDOSES.
- E - ELEVATION OF SERUM AMINOTRANSFERASE.
- A - ALOPECIA.
- T - TOXICITY TREATED BY (Protamine Sulfate).
- H - HYPERKALEMIA.

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INTERNATIONAL MEDICAL NOTES, MNEMONICS, APPROACHES, AND CLASSIFICATIONS, INCLUDING USMLE & MRCP COLLECTED FOR ALL DOCTORS AND MEDICAL STUDENTS



⚠ Important Clinical Points (High Yield)

Key Point	Topic
Protamine sulfate	Heparin antidote
Vitamin K	Warfarin antidote
aPTT	Heparin monitoring
PT / INR	Warfarin monitoring
↓ platelets + thrombosis → stop heparin	HIT
❌ contraindicated (teratogenic)	Warfarin in pregnancy
✅ safe (does not cross placenta)	Heparin in pregnancy

🔥 Warfarin Interactions (VERY IMPORTANT)

Cause	Effect on Warfarin
Cholestyramine, genetic resistance	↓ effect
↓ Vit K (antibiotics), NSAIDs, enzyme inhibitors (metronidazole, cimetidine, allopurinol, amiodarone, alcohol)	↑ effect

Pharmacology/HLS/T/Anticogulants/T.pdf

- Heparin → fast, hospital, aPTT
- Warfarin → slow, oral, INR
- LMWH → Xa only, safer
- DOACs → no monitoring
- HIT → stop heparin immediately

لَا حَوْلَ وَلَا قُوَّةَ إِلَّا بِاللَّهِ

"من كنوز الجنة"

