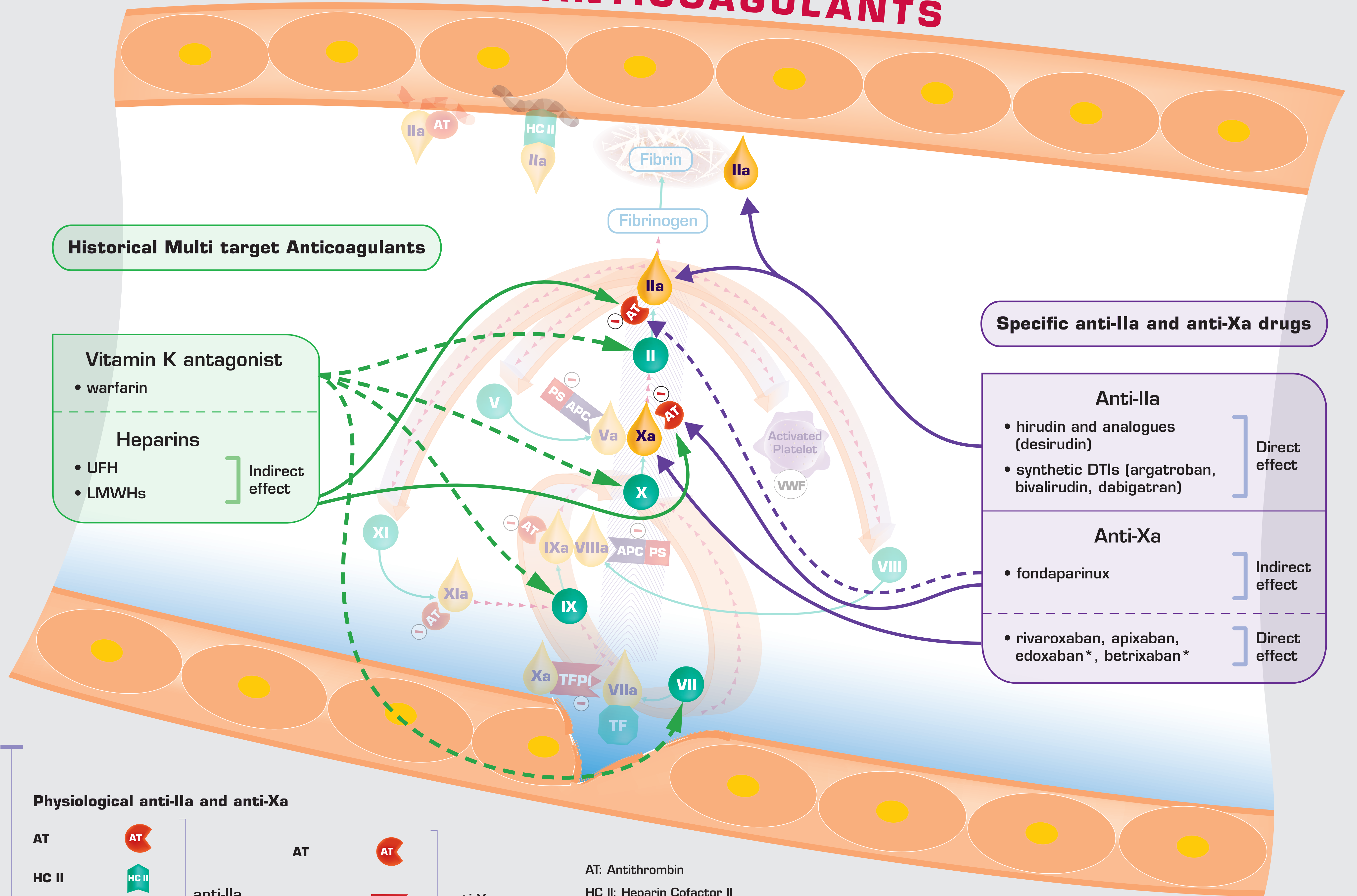


# ANTICOAGULANTS



## Historical Multi target Anticoagulants

- Vitamin K antagonist**
    - warfarin
  - Heparins**
    - UFH
    - LMWHs
- Indirect effect

## Specific anti-IIa and anti-Xa drugs

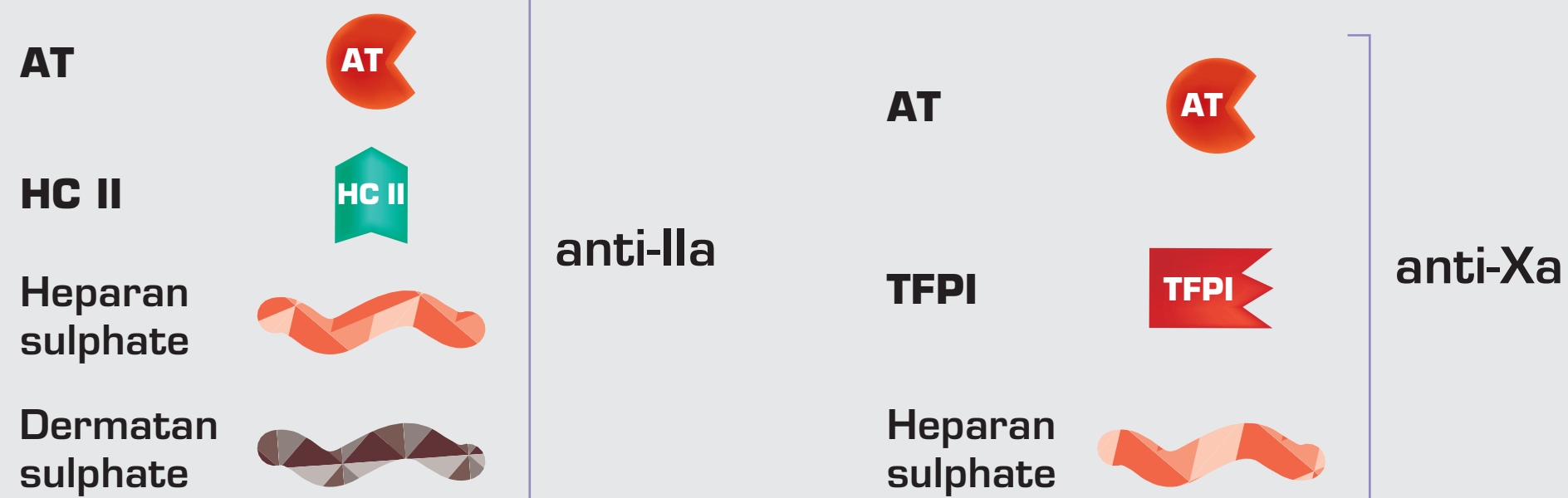
- Anti-IIa**
  - hirudin and analogues (desirudin)
  - synthetic DTIs (argatroban, bivalirudin, dabigatran)

Direct effect
- Anti-Xa**
  - fondaparinux

Indirect effect
- rivaroxaban, apixaban, edoxaban\*, betrixaban\*

Direct effect

## Physiological anti-IIa and anti-Xa



AT: Antithrombin  
 HC II: Heparin Cofactor II  
 TFPI: Tissue Factor Pathway Inhibitor  
 UFH: Unfractionated Heparin  
 LMWH: Low Molecular Weight Heparin

\*These drugs are not yet approved for clinical use in the US