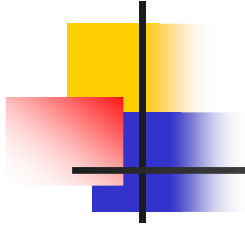




Hematologic



-
- Abciximab
 - Alteplase
 - Aspirin
 - Atorvastatin
 - Bivalirudin
 - Cholestyramine
 - Cilostazol
 - Clopidogrel
 - Cyclosporine
 - Enoxaparin
 - Epoetin
 - Eptifibatide
 - Ezetimibe
 - Filgrastim
 - Folic acid
 - Gemfibrozil
 - Heparin
 - Niacin
 - Sirolimus
 - Warfarin



Abciximab

- **Antithrombotic**
- **Monoclonal Ab**
- **Inactivates platelet gp IIb/IIIa receptors**
 - **Prevents platelet aggregation**
 - **Prevent thrombosis during coronary angioplasty & stent placement**
- Bleeding
- Thrombocytopenia



Alteplase

- Thrombolytic
- **Plasminogen activator**
- **Converts plasminogen → plasmin**
 - **Degrades fibrin & fibrinogen**
 - **AMI**
 - Acute ischemic stroke
 - Occluded central venous access devices
 - **Streptokinase & urokinase** for pulmonary embolism
- **Reperfusion arrhythmia**
- Contraindications
 - Internal bleeding
 - Recent CNS surgery or trauma



Atorvastatin

- Cholesterol lowering agent
- **HMG-CoA reductase inhibitor**
- **HMG-CoA reductase, rate-limiting enzyme for cholesterol**
 - ↑ hepatic cholesterol uptake
 - ↓ LDL levels
- Hypercholesterolemia
- Cholesterol-lowering effects ↑ w/ ezetimibe & bile acid-binding agents
- **Myalgia**
- **Myositis**
- **Rhabdomyolysis**
- Hepatitis
- GI distress
- Effects ↑ w/
 - Grapefruit juice
 - Azole antifungals
 - cyclosporine



Bivalirudin

- Anticoagulant
- **Hirudin analogue**
- **Inhibits thrombin**
 - **Prevents blood coagulation**
 - Thrombosis in unstable angina
 - AMI
 - Stent insertion
- Used in pts w/ heparin-induced thrombocytopenia
- Bleeding



Cholestyramine

- **Cholesterol-lowering agent**
- **Bile-acid binding resin**
- **Binds intestinal bile acids**
 - Prevents reabsorption
 - ↑ cholesterol utilization
 - ↓ LDL levels
 - Hypercholesterolemia
 - Diarrhea d/t excess bile acids
- **Constipation**
- Abdominal discomfort



Cilostazol

- Antiplatelet
- **Platelet aggregation inhibitor**
- **Inhibits phosphodiesterase III & ↑ cAMP in platelet & blood vessels**
 - **Inhibit platelet aggregation**
 - **Causes vasodilation**
 - Intermittent claudication
 - Improves blood flow & walking distance
 - Additive effects w/ aspirin
- HA
- Effects ↑ w/ CYP3A4 inhibitors
 - Azole antifungals
 - Erythromycin
 - Grapefruit juice



Clopidogrel

- **Antiplatelet**
- **Platelet aggregation inhibitor**
- **Irreversibly inhibits binding of ADP to platelet receptors**
 - **↓ gp IIb/IIIa mediated aggregation**
 - Stroke
 - MI
 - Peripheral vascular ds
 - Additive effects w/ aspirin
- Hypersensitivity reaction



Cyclosporine

- **Immunosuppressant**
- **IL2 expression inhibitor**
- **Bind immunophilins**
 - **Complex binds calcineurin → inhibits transcription of IL2 gene**
 - **Prevent rejection of renal, cardiac or hepatic allografts**
 - **Severe RA & psoriasis**
- **HTN**
- **Nephrotoxic**
- **Gingival hyperplasia**
- **Hirsutism**
- **Tremor**
- **Induce metabolism**
 - Rifampin
 - Barbiturates
 - Carbamazepine
- **Inhibits metabolism**
 - Grapefruit juice



Enoxaparin

- Parenteral anticoagulant
- LMWH
- **Binds/potentiates antithrombin III on factor Xa**
 - Prevent
 - DVT
 - Pulmonary embolism after knee, hip, or abdominal surgery
 - Thrombosis in unstable angina & non Q-wave MI
 - **Effects reversed w/ protamine sulfate**
 - NO monitoring w/ PTT
- Thrombocytopenia



Epoetin

- Hematopoietic growth factor
- Recombinant human EPO

- **Binds receptors on erythroid progenitor cells & stim. cell maturation & prolif.**
 - Reticulocytosis & ↑ Hct

 - Anemia d/t
 - CRF
 - Chemotherapy
 - Zidovudine therapy
 - Hematologic malignancy
 - lymphoma

 - Used as performance-enhancing drug by athletes

- HTN



Eptifibatide

- Antiplaquet
- **GP IIb/IIIa receptor antagonist**
- **Reversibly inhibits fibrinogen binding to gp IIb/IIIa receptors**
 - **Prevents platelet aggregation**
 - Prevent coronary thrombosis in
 - Unstable angina or non-ST segment elevation MI
 - Coronary angioplasty or stent placement
- Bleeding



Ezetimibe

- **Cholesterol-lowering agent**
- Cholesterol absorption inhibitor

- **Disrupts annexin-caveolin complex mediating cholesterol transport intestinal brush border**
- **Inhibits absorption of biliary dietary cholesterol**
 - **Pro-drug converted to active glucuronide metabolite**
 - **Hypercholesterolemia**
 - Additive effect w/ statins



Filgrastim

- Hematopoietic growth factor
- Recombinant human GCSF
- **Binds receptors on myeloid progenitor cells & stim. maturation & prolif.**
- **Accelerates neutrophil recovery after myelosuppressive chemotherapy**
 - ↓ infection incidence
 - Neutropenia assoc/ w/ chemotherapy & bone marrow transplants
 - Avoid 24 hrs prior & after chemotherapy
- Bone pain



Folic acid

- Vitamin, hematologic agent
- **Metabolic cofactor for DNA synthesis**
- **Activated folate transfer one-carbon units to purine & pyrimidine precursors**
 - Megaloblastic anemia
 - Fetal neural tube defects
 - Coronary artery ds
 - Pregnant woman have ↑ requirements
- Absorption ↓ by
 - Phenytoin
 - Cholestyramine
- Folate reductase inhibited by MTX



Gemfibrozil

- **Lipid-lowering agent**
- **Fibric acid derivative**
- **Activates peroxisome proliferator activated receptor- α**
 - **Oxidizes FA & apo-AI & AII**
 - **↓ plasma triglycerides**
 - **↑ HDL**
- **Hypertriglyceridemia**
- **↓ HDL levels**
- *Monitor LFTs throughout Tx*
- **GI distress**
- **Myositis**
- **Statins ↑ risk rhabdomyolysis**



Heparin

- Parenteral anticoagulant
- Antithrombotic

- Binds/potentiates antithrombin III
 - ↑ inactivation factor Xa & thrombin

 - Venous thromboembolism
 - Pulmonary embolism
 - AF w/ embolism
 - Consumptive coagulopathies
 - In vitro & catheter coagulation

 - Monitor PTT
 - Protamine sulfate for OD

Thrombocytopenia



Niacin

- **Vitamin, lipid-lowering agent**
- **G-protein coupled receptor ligand**
- **Activates G-protein coupled receptor**
 - **Inhibits lipolysis & release of FA**
 - **↓ hepatic triglyceride synthesis & VLDL secretion**
 - Hypertriglyceridemia
 - ↑ HDL
 - Hypercholesterolemia
 - Pellagra
- **Flushing**
- **Pruritis**
- GI distress, peptic ulcer
- Hyperglycemia
- Hepatotoxicity
- **Statins ↑ risk rhabdomyolysis**



Sirolimus

- Immunosuppressant
- **T-lymphocyte inhibitor**
- **Inhibits regulatory kinase in cytokine-driven T-cell prolifer.**
 - Combo w/ corticosteroid & cyclosporine
 - Prevent
 - Rejection renal allograft
 - Coronary stent restenosis
- Leukopenia
- Thrombocytopenia
- Hyperlipidemia
- Rash
- ↑↑ blood levels
 - Cyclosporine
 - Azole antifungals
 - Erythromycin
 - Grapefruit juice
 - Cimetidine



Warfarin

- Oral anticoagulant
- Coumarin vit. K antagonist
- Inhibits reduction of oxidized vit. K
 - Prevents vit. K dependent carboxylation of glutamate residues of factors II, VII, IX, X, proteins C & S
 - Delayed onset d/t circulating coagulation factors
 - Monitor INR
 - Give vit. K if bleeding
- Fetal malformations
- Abnormal bone development