



SNS COLLEGE OF ALLIED HEALTH SCIENCES
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DEPARTMENT : PHYSICIAN ASSISTANT

COURSE NAME : PHARMACOLOGY

UNIT : COMMON DRUGS

**TOPICS : EFFECTS AND SIDE EFFECTS AND DRUG
INTERACTIONS**



NONSTEROIDAL ANTI - INFLAMMATORY DRUGS (NSAIDs)



Examples: Ibuprofen, Naproxen, Aspirin.

Effects:

- Anti-inflammatory.
- Analgesic (pain relief).
- Antipyretic (fever reduction).



Side Effects:

- Gastrointestinal irritation (ulcers, bleeding).
- Renal impairment.
- Increased risk of cardiovascular events.

Interactions:

- Increased risk of bleeding with anticoagulants.
- Reduced effectiveness of antihypertensive medications.



BETA BLOCKERS



Examples: Atenolol, Metoprolol, Propranolol.

Effects:

- Decreased heart rate.
- Reduced blood pressure.
- Anti-arrhythmic effects.



Side Effects:

- Fatigue.
- Bradycardia (slow heart rate).
- Cold extremities.

Interactions:

- Enhanced effects with other antihypertensive drugs.
- Reduced effectiveness of bronchodilators in asthmatic patients.



Angiotensin-Converting Enzyme (ACE) Inhibitors



Examples: Enalapril, Lisinopril, Captopril.

Effects:

- Vasodilation.
- Reduced blood pressure.
- Diuretic effect.



Side Effects:

- Dry cough.
- Hyperkalemia (elevated potassium levels).
- Angioedema.

Interactions:

- Increased risk of hyperkalemia with potassium-sparing diuretics.
- Reduced effectiveness with NSAIDs.



Selective Serotonin Reuptake Inhibitors (SSRIs)



Examples: Fluoxetine, Sertraline, Paroxetine.

Effects:

- Antidepressant effects.
- Anxiolytic effects.
- Mood stabilization.



Side Effects:

- Sexual dysfunction.
- Insomnia.
- Weight gain.

Interactions:

- Increased risk of serotonin syndrome with other serotonergic drugs.
- Increased bleeding risk with anticoagulants.



HMG-CoA Reductase Inhibitors (Statins)



Examples: Atorvastatin, Simvastatin, Rosuvastatin.

Effects:

- Lower cholesterol levels.
- Cardiovascular risk reduction.



Side Effects:

- Myopathy (muscle pain).
- Liver enzyme elevation.
- Rhabdomyolysis (rare but severe muscle breakdown).

Interactions:

- Increased risk of myopathy with fibrates.
- Grapefruit juice can increase statin levels.



Antibiotics - Fluoroquinolones



Examples: Ciprofloxacin, Levofloxacin.

Effects:

Broad-spectrum antibacterial activity.



Side Effects:

- Tendon rupture.
- Central nervous system effects (headache, dizziness).
- Photosensitivity.

Interactions:

- Reduced absorption with antacids and divalent cations.



Opioid Analgesics



Examples: Morphine, Oxycodone, Codeine.

Effects:

- Pain relief.
- Sedation.
- Euphoria.



Side Effects:

- Respiratory depression.
- Constipation.
- Tolerance and dependence.

Interactions:

- Increased respiratory depression with other CNS depressants.
- Reduced efficacy with opioid antagonists (e.g., naloxone).



Anticoagulants



Examples: Warfarin, Heparin, Rivaroxaban.

Effects:

Prevention of blood clot formation.



Side Effects:

- Bleeding.
- Thrombocytopenia (low platelet count).
- Osteoporosis (long-term use of warfarin).

Interactions:

- Numerous drug interactions affecting clotting factors.



ASSESSMENT



- What is the Drug interactions of Opioid Analgesics?
- What all are the Side effects of Beta Blockers ?