

## IBD Drugs

Drug	MOA	Pharmacokinetics	Uses	Side effect
<b>A)sulpha drugs:</b>  <b>1.Sulphasalazine</b>	Inhibit prostaglandin & leukotriens synthesis, ↓ neutrophil chemotaxis & ↓ free radical production.	<b>Prodrug, orally</b> , (20-30 %) absorbed by intestine, secreted in the bile & hydrolysed in ileum & colon by <b>bacterial flora release azoreductase &amp; cleave the azo bond → release 5-ASA in terminal ileum &amp; colon.</b>	In maintainance therapy (not acute attacks). <b>UC, Crohn's colitis</b> but not Crohn's of <b>small intestine.</b> <b>Rheumatoid arthritis.</b> ✓ <b>Safe</b> in <b>pregnancy.</b>	Muscular pain, NVD. Crystalluria & interstitial nephritis. <b>HSR (MCQ).</b> Skin rash, fever. Inhibit absorption of folic acid → <b>aplastic anemia.</b> Infertility in man ( <i>Oligospermia</i> ).
<b>B)non-sulpha drugs:</b>  <b>1.Mesalamine</b>  Less side effect → <b>No HSR.</b>	<b>a.Pentasa</b>  <b>b.Asacol</b>  <b>c.Rowasa (enema)</b>  <b>d.Canasa (suppositories)</b>	<b>Orally:</b> time release microgranules that release 5ASA through the small intestine. Taken after meals. ↓ Dose in renal failure.  5-ASA coated in pH sensitive resin that dissolved at pH 7.  Treat & maintain remission in mild to moderate UC.	<b>rectally</b> for Mild to moderate <b>UC.</b> <b>Crohn's disease.</b> Rheumatoid arthritis.	
<b>2. Mesalazine</b>	<b>Oral.</b>			Has <b>less</b> side effects but <b>expensive.</b>
<b>3. Olsalazine</b>	<b>Dimer</b> of 5-ASA linked by diazo bond → <b>pass small</b> intesitne to ilium & colon).			
<b>C)Corticosteroids:</b>  For acute	<b>Inhibits</b> phospholipase A2, <b>inhibit</b> gene expression of NO synthase, COX-2. <b>Inhibit</b> inflammatory cytokines (TNF-α).	<b>1.Prednisone</b> Treat moderate – severe UC. Less effective as prophylactic.	<b>2.Budesonide</b> <b>Orally</b> Controlled release.	<b>3.Hydrocortisone enema</b> or <b>suppository</b> for <b>rectum or sigmoid colon.</b> Used also for extracolonic (ocular lesion, skin disease & peripheral arthritis).
<b>D)Immunosuppressive Agents:</b>	<b>1.Azathioprine</b> <b>Mercaptopurine</b>  <b>2.Methotrexate</b>	Suppress the body's immune system. By <b>inhibiting</b> purine synthesis.  <b>Dihydrofolate reductase inhibitor</b> (important in purine synthesis) works as antimetabolite.	Used in steroids resistant ( <b>UC &amp; Crohn's disease</b> ).  Crohn's disease (to induce & maintain remission). Rheumatoid Arthritis.	<b>Side Effects</b> N, V & <b>bone marrow depression.</b> LFT changes- <b>HSR.</b> <b>Bone marrow depression.</b>