1. Serotonin receptor agents
MOA: Modulates GI activity through intrinsic and extrinsic activity
5-HT_4 agonists – increases intrinsic serotonin signaling
5-HT_3 antagonists – ↓ extrinsic signaling – ↓ reflex contraction
Metaclopramide – 5-HT_4 agonists (**prokinetic – IBS-C**)
SE: D_2 antagonist - neuroleptic syndrome, TD/EPS, Depression, Prolonged QT, Prolactinemia
CI: Bowel obstruction, Parkinson's. disease
Alosetron – 5-HT_3 antagonist (**anti-diarrheal – IBS-D**)
SE: Constipation, Fatal ischemic colitis

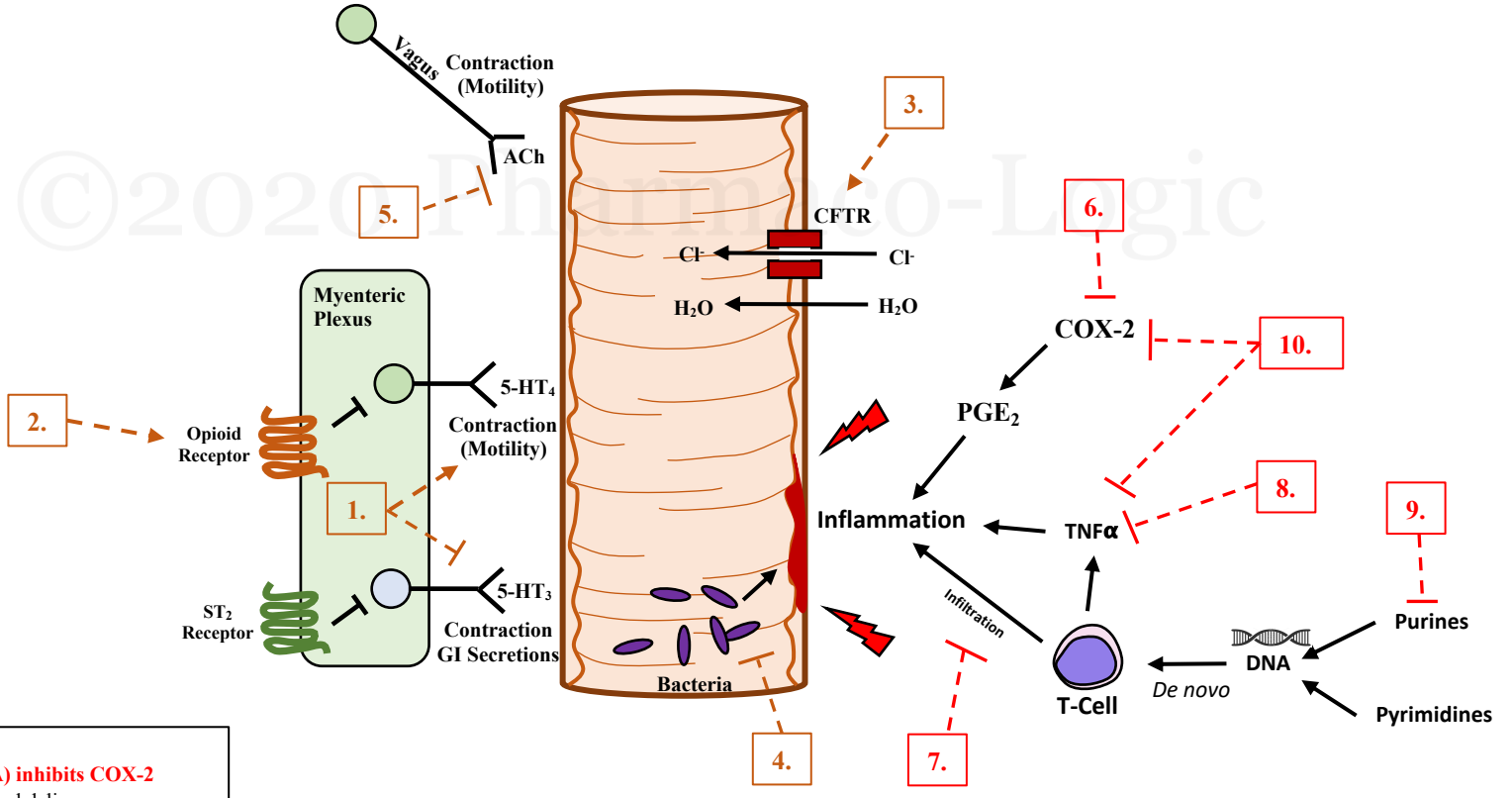
2. Eluxadoline
MOA: Opioid agonist → creates Mu and Delta heterodimers
USE: IBS-D
SE: Constipation, nausea, vomiting,
DDI: Constipating agents (opioids, -setron, anticholinergics) OAT inhibitors, Statins,

3. Linaclotide
MOA: Activates cGMP pathway on GI intestinal cells → increased Cl- channel activation (CFTR channel)
USE: IBS-C
SE: Diarrhea, dehydration (black box warning)

4. Rifamixin
MOA: Antibiotic –RNA polymerase inhibitor
USE: IBS-D, Traveler's diarrhea, Hepatic encephalopathy (FA)
SE: Constipation, nausea, vomiting, bloating, gas

5. Anticholinergics
MOA: Block muscarinic receptor activation – decreased GI activity
Dicyclomine
Hyoscyamine
USE: IBS-D
SE: anti-muscarinic – Hot, dry, blind, mad

Irritable Bowel Disease



Inflammatory Bowel Disease

6. Aminosalicylates
MOA: Anti-inflammatory (5-ASA) inhibits COX-2
Mesalamine – Formulated for targeted delivery
Sulfasalazine – Sulfonamide antibiotic
Olsalazine
Balsalazine
Sulfapyridine – systemic effects
SE: renal toxicity, allergic reactions (salicylates), headache

7. Biologic Disease Modifying Agents
MOA: Anti α4- integrin inhibitor – prevent immune cell migration
Natalizumab
SE: Anaphylaxis, Progressive multifocal leukoencephalopathy, headache, nausea, infection

8. TNF alpha antagonists
MOA: Inhibit TNF alpha signaling → prevent inflammation
Adalimumab
Infliximab
Certolizumab
Golimumab
SE: increased risk for infection (URTI), Hematological disorders (cytopenia), reactivation of TB or HepB

9. Antimetabolites
MOA: Decreased de novo DNA synthesis → ↓ Lymphocyte proliferation
Methotrexate – DHFR inhibitor
6-mercaptopurine – inhibits purine biosynthesis
Azathioprine – converted to 6-MP
SE: Myelosuppression, hepatotoxicity, nephrotoxicity, stomatitis, Preg Cat X,
DDI: allopurinol w/ 6-MP

10. Corticosteroids
MOA: GC receptor activation → Decreased production of cytokines → ↓PG's, ↓LTs, ↓TNF
Prednisone
Prednisolone
SE: Adrenal insufficiency, osteoporosis, immunosuppression, GI ulcer, Hyperglycemia, Cushing's
PK: Metabolized by CYP3A4