|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Drug** | **Examples** | **Mechanism** | **Uses** | **Side Effects** |
| **Acetaminophen** | | **CNS** COX inhibitor  (**reversible**)  **Inactivated peripherally** | Antipyretic  Analgesic  **Not anti-inflammatory**  Use for kids (instead of aspirin) | **Hepatic necrosis** (NAPQI)  Treat w/ **N-acetylcysteine**  (regenerates glutathione) |
| **Aspirin** | | COX inhibitor  (**irreversible**)  **Decr. TXA2, PGs**  No effect on PT/PTT  **Reversed by platelet regeneration** | **Low**: decr. platelet aggregation  **Intermediate**: antipyretic, analgesic  **High**: anti-inflammatory | **Gastric ulceration**  **Tinnitus**  **Renal failure**  **Interstitial nephritis**  **GI bleeding**  **Reye syndrome**  **Respiratory alkalosis (early)**  **Metabolic acidosis (4+ hrs)** |
| **Celecoxib** | | **Selective COX-2 inhibitor**  (**reversible**)  Inhibits inflammation  **No gastric damage**  **Spare platelets** | **Rheumatoid arthritis**  **Osteoarthritis** | **Incr. thrombosis risk**  Sulfa allergy |
| **NSAIDs** | Ibuprofen  Naproxen  Indomethacin  Ketorolac  Diclofenac  Meloxicam  Piroxicam | COX inhibitor  (**reversible**)  **Block PG synthesis** | Antipyretic  Analgesic  **Anti-inflammatory**  Indomethacin: **close PDA** | **Interstitial nephritis**  **Gastric ulcer**  (PGs protect mucosa)  **Renal ischemia**  (PGs vasodilate afferent) |
| **Leflunomide** | | **DHODH\* inhibitor**  (**reversible**)  Prevent pyrimidine synth.  **Suppress T-cell proliferation** | **Rheumatoid arthritis**  **Psoriatic arthritis** | Diarrhea  HTN  **Hepatotoxicity**  **Teratogenic** |
| **Bisphosphonates** | Alendronate  Ibandronate  Risedronate  Zoledronate | **Pyrophosphate analog**  Bind hydroxyapatite  **Inhibit osteoclasts** | **Osteoporosis**  Hypercalcemia  **Paget disease**  **Osteogenesis imperfecta**  Metastatic bone disease | **Esophagitis**  (remain upright 30min)  **Jaw osteonecrosis**  **Atypical stress fractures** |
| **Teriparatide** | | **Recombinant PTH analog**  Incr. osteoblast activity | **Osteoporosis**  Incr. bone growth | Transient hypercalcemia |
| **Chronic gout drugs** | Allopurinol | **Xanthine oxidase inhibitor**  Decr. urate production | Chronic gout  **Tumor lysis syndrome** | **Inhibit azathioprine breakdown** |
| Fuboxostat | Inhibit xanthine oxidase | Chronic gout |  |
| Pegloticase | **Recombinant uricase**  **Convert uric acid to allantoin**  (water soluble) | Chronic gout |  |
| Probenacid | **Inhibit uric acid reuptake** (PCT)  **Inhibit penicillin secretion** | Chronic gout | **Uric acid nephrolithiasis** |
| **Acute gout drugs** | Colchicine | **Bind/stabilize tubulin**  Impair neutrophil chemotaxis | Acute gout  Gout prophylaxis | **GI side effects**  (nausea, vomiting, diarrhea) |
| **TNF-a inhibitors** | Etanercept | **Fusion protein**  (TNF-a receptor, IgG Fc portion) | Rheumatoid arthritis  Psoriasis  Ankylosing spondylitis | **Incr. infections**  (decr. granuloma formation) |
| Infliximab  Adalimumab | Anti-TNFa **monoclonal antibody** | **Inflammatory bowel disease**  Rheumatoid arthritis  Ankylosing spondylitis  Psoriasis |
| **Rasburicase** | | **Recombinant uricase**  **Convert uric acid to allantoin** | **Tumor lysis syndrome** |  |

\*Dihydroorotate dehydrogenase (doesn’t fit in table)