|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Drug** | **Examples** | **Mechanism** | **Uses** | **Side Effects** |
| **Acetaminophen** | **CNS** COX inhibitor(**reversible**)**Inactivated peripherally** | AntipyreticAnalgesic**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** | IbuprofenNaproxenIndomethacinKetorolacDiclofenacMeloxicamPiroxicam | COX inhibitor(**reversible**)**Block PG synthesis** | AntipyreticAnalgesic**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** | DiarrheaHTN**Hepatotoxicity****Teratogenic** |
| **Bisphosphonates** | AlendronateIbandronateRisedronateZoledronate | **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 goutGout prophylaxis | **GI side effects**(nausea, vomiting, diarrhea) |
| **TNF-a inhibitors** | Etanercept | **Fusion protein**(TNF-a receptor, IgG Fc portion) | Rheumatoid arthritisPsoriasisAnkylosing spondylitis | **Incr. infections**(decr. granuloma formation) |
| InfliximabAdalimumab | Anti-TNFa **monoclonal antibody** | **Inflammatory bowel disease**Rheumatoid arthritisAnkylosing spondylitisPsoriasis |
| **Rasburicase** | **Recombinant uricase****Convert uric acid to allantoin** | **Tumor lysis syndrome** |  |

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