

SULFONAMIDES

MOA Mammalian cells lack dihydropteroate synthase and require exogenous sources of folate. Inhibiting synthesis of folic acid (folate), a compound required by all cells to make DNA, RNA, and proteins

PK Absorbed from the stomach and small intestines, widely distributed to tissues and body fluids (CNS, CSF, placenta, fetus)
Excreted unchanged into the urine.
Eliminated by glomerular filtration and breast milk.

AE Crystalluria, hypersensitivity, hematopoietic disturbances (hemolytic anemia), kernicterus

CONTRA Pregnant women, children <2 mo old

SULFONAMIDES

ORAL, NONABSORB

SULFASALAZINE

ORAL, ABSORBABLE

SHORT SULFACYTINE

SULFISOXAZOLE **Indications:** UTI

FULFAMETHIZOLE

INTERM SULFADIAZINE **Indications:** 1st line for acute toxoplasmosis

SULFAMETHOXAZOLE **Indications:** UTI

SULFAPYRIDINE

LONG SULFADOXINE **Indication:** 2nd line for malaria

TOPICAL

SODIUM SULFACETAMIDE

MAFENIDE ACETATE

SILVER SULFADIAZINE

Sulfadiazine and **sulfadoxone** are used in combo with pyrimethamine

DHFR INHIBITORS

TMP/SMX Drug of choice for infections such as Pneumocystis jiroveci pneumonia, toxoplasmosis, nocardiosis, and occasionally other bacterial infections

TRIMETHOPRIM UTI

PYRIMETHAMINE Parasitic

AE: megaloblastic anemia, leukopenia, granulocytopenia

FLUOROQUINOLONES

MOA Inhibit one or both of the 2 prokaryotic type II topoisomerases

PK Well absorbed, widely distributed in body fluids and tissues
Excreted really

INDICATIONS Resistant respiratory infections, anthrax, gonorrhea, UTI and bacterial diarrhea caused by shigella, salmonella, toxigenic E coli, and campylobacter

AE NVD, HA, dizziness, phototoxic, connective tissue problems

BBW Tendinitis, tendon rupture

CONTRA Avoid in pregos, nursing mothers, and children <18

DDI THEOPHYLLINE, WARFARIN, CYCLOSPORINE

Concentration-dependent killing

FLUOROQUINOLONES

NALIDIXIC ACID

NORFLOXACIN

OFLOXACIN

CIPROFLOXACIN No longer recommended for gonococcal in the US
Indications: chlamydial urethritis, cervicitis

LEVOFLOXACIN No longer recommended for gonococcal in the US
Indications: chlamydial urethritis, cervicitis
QD, long t1/2

MOXIFLOXACIN Only one not effective in UTI's
QD, long t1/2
Contra: puts predisposed to arrhythmias or pts that are taking anti arrhythmic meds due to QT prolongation

METHENAMINE

MOA Metabolized to formaldehyde and ammonia in acidic pH. The formaldehyde is lethal to bacteria.

INDICATION Urinary tract antiseptics/antimicrobials

SIDE EFFECTS GI distress, may cause albuminuria, hematuria, and rashes at higher doses

CONTRA Pts with renal insufficiency