

Sulfonamide Cross-Reactivity

References

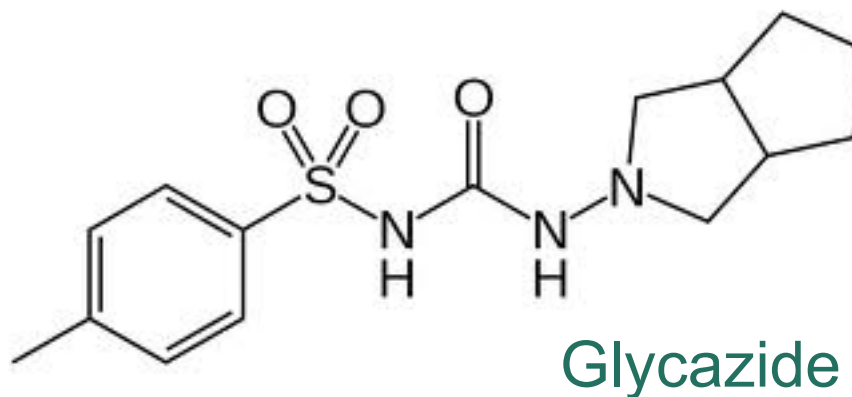
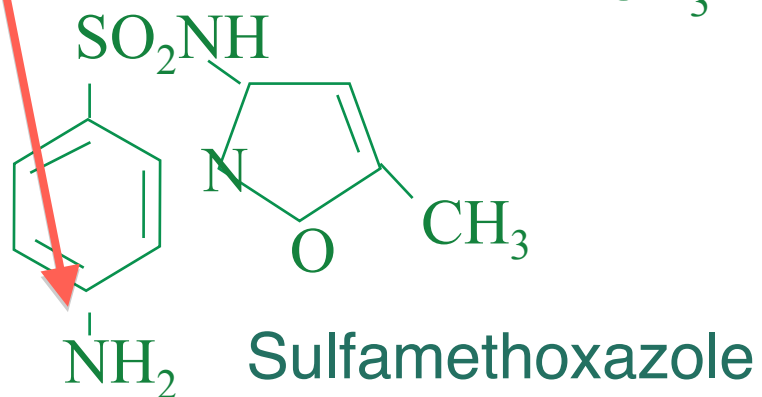
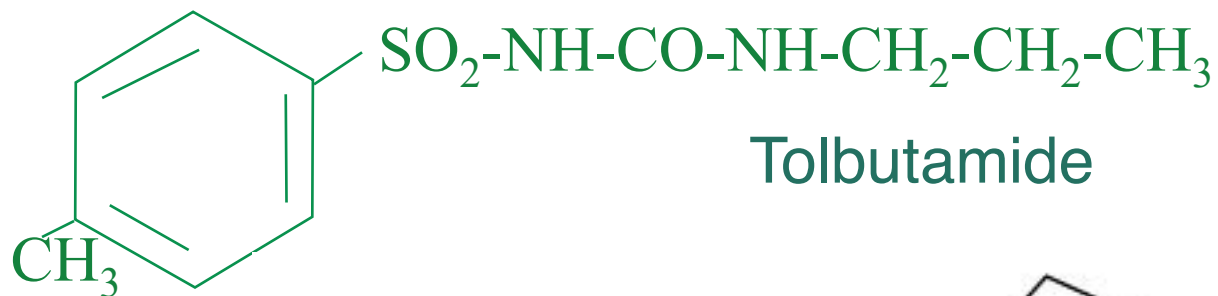
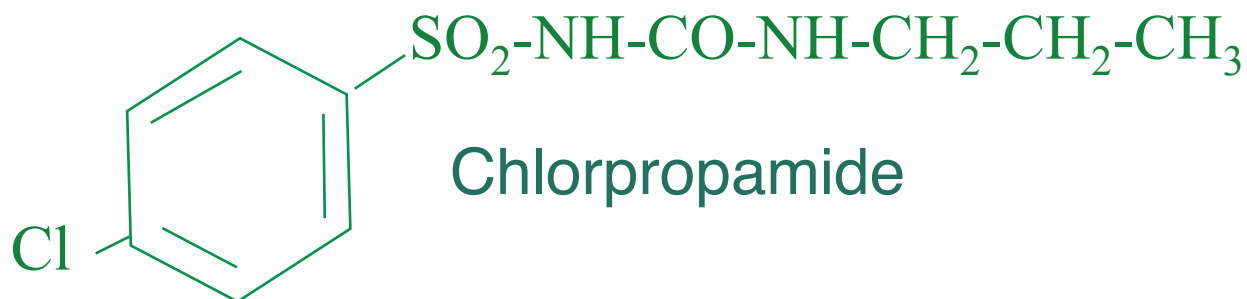


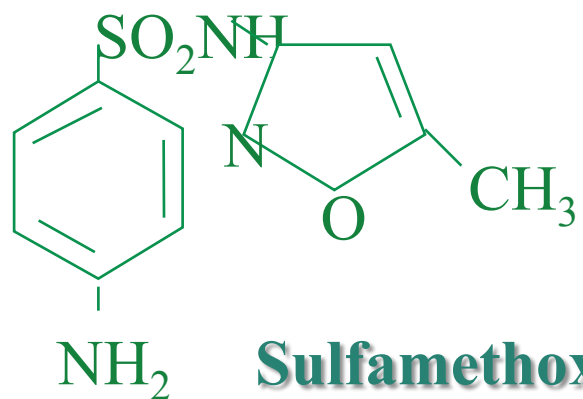
Antibiotic Allergy, Gruchall R.S. et. al. NEJM 354; 6pg
601-609 February 9, 2006

Absence of Cross-Reactivity between Sulfonamide
Antibiotics and Sulfonamide Nonantibiotics. Strom B.
et al. NEJM 349;17, October 23, 2003

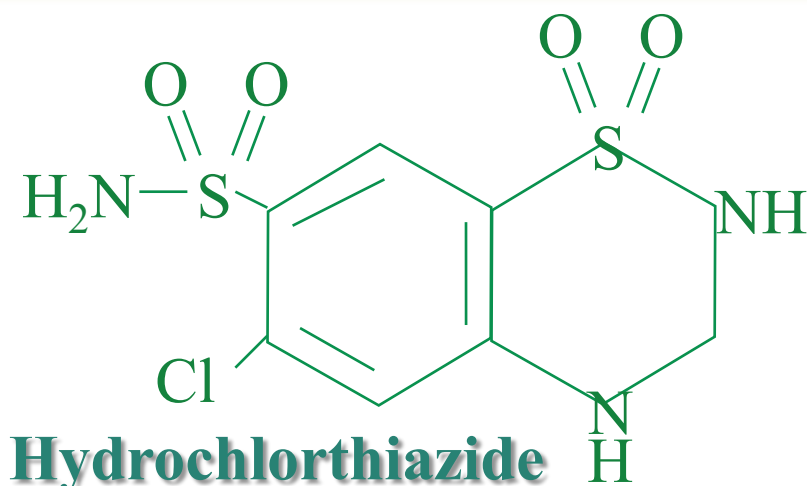


Aryl amine
most likely
responsible
for the reactions

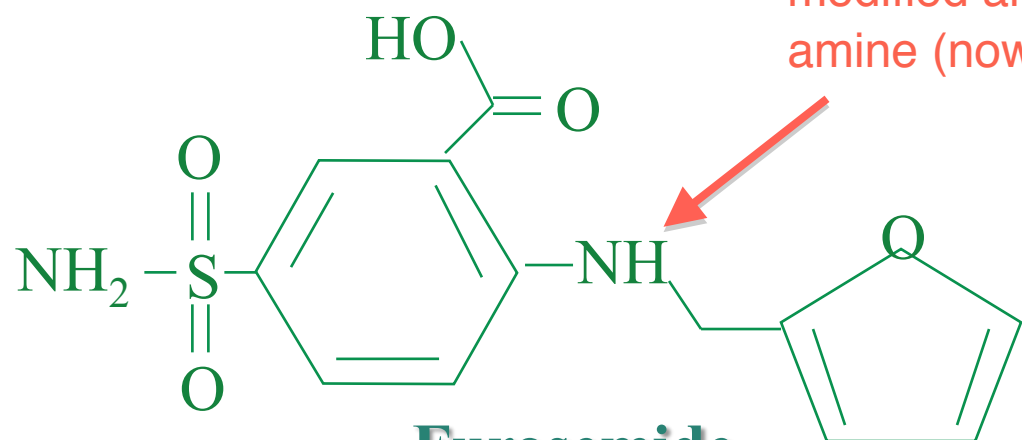




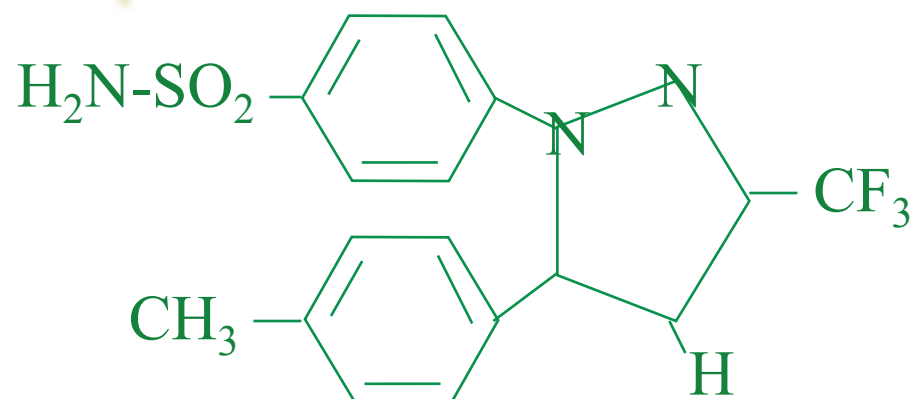
Sulfamethoxazole



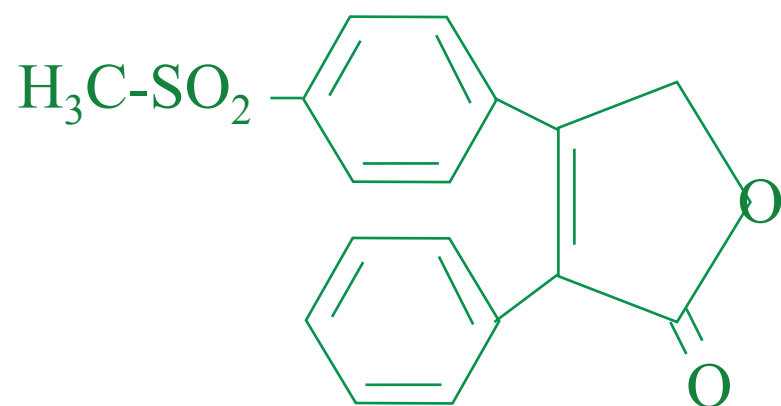
Hydrochlorthiazide



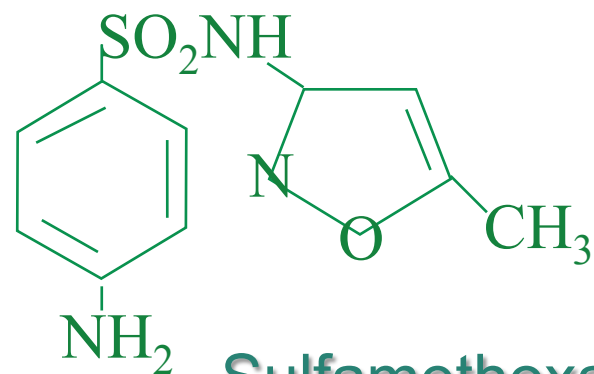
Furosemide



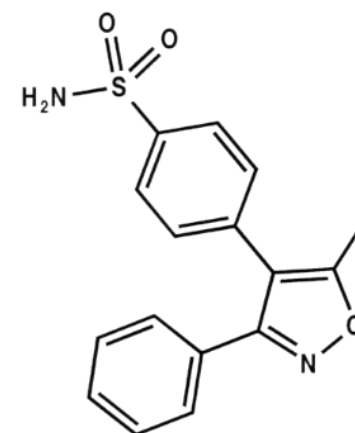
Celecoxib (Celebrex)



Rofecoxib (Vioxx) (D/C)



Sulfamethoxazole



**Valdecoxib
Bextra (D/C)**



Cross-reactivity with Sulfonamides and Sulfonamide Nonantibiotics

The unadjusted OR for the association between hypersensitivity or allergic reactions after receipt of a sulfonamide nonantibiotic and an history of hypersensitivity or allergic reactions to sulfonamide antibiotics was

5.7 (4.0-8.3) for thiazides alone

7.0 (5.1-9.3) for loop-diuretics alone

6.9 (3.0 - 15.9) for loop sulfonylureas alone

OR = rxn / total
These are not
adjusted

Had allergic rxn
to sulphonamides
then given thiazides
--> OR is 5.7 for receiving
thiazide as opposed to
just sulfonamides again

By comparison the OR for an allergic reaction after the receipt of a Rx for penicillin in those with a prior rxn to sulfonamides compared to those without such a reaction was 7.8.

Patients allergic to sulfonamides had 7.8 fold inc. chance to develop allergic rxn to penicillin

This may mean that these pts are just naturally more likely to develop allergic rxns in general
NEJM 349:17 1628 – 1635 2003 NOT Double-Blinded Control Trial



Cross-reactivity with Sulfonamides and Sulfonamide Nonantibiotics

“ There is an association between hypersensitivity after the receipt of sulfonamide antibiotics and a subsequent allergic reaction after the receipt of a sulfonamide nonantibiotic, but this association appears to be due to a predisposition to allergic reactions rather than to cross-reactivity with sulfonamide-based drugs.”

Absence of Cross-Reactivity between Sulfonamide Antibiotics and Sulfonamide Nonantibiotics. Strom B. et al. NEJM 349;17, October 23, 2003



Cross-reactivity with Sulfonamides and Sulfonamide Nonantibiotics

- ❑ The “increased risk of an allergic reaction to nonantibiotic sulfonamides, as compared with patients without such a history (OR 2.8 (2.1-3.7) and were even more likely to have a reaction to penicillin OR 3.9 (3.5 - 4.3).
- ❑ “These results suggests subsequent reaction to nonantibiotic sulfonamides is probably a predisposition to allergic reactions in general
- ❑ “Results must be interpreted with caution, given the retrospective design and the use of diagnosis codes.”