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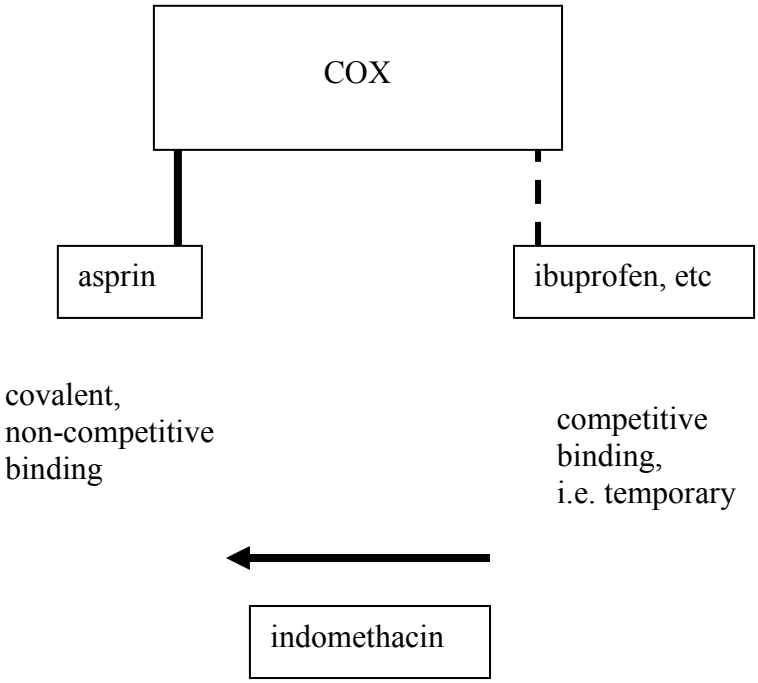
SECOND NOTES ON NSAIDS

1. BINDING



As rule, NSAIDs bind non-competitively to COX, as typified by ibuprofen.

Asprin, however, binds covalently. Therefore, its effects terminate only when the receptor or the membrane are replaced. For example, you have to wait until all the platelets are resorbed to overcome the anticoagulant effect of asprin.

Indomethacin evolves with time, from being non-competitive to permanently bound.

Ketorolac is a racemate, consisting of a mixture of S and R enantiomers. The S version binds more strongly than the R version. However, the binding is unpredictable because conversion between S and R varies.

2. TAXONOMY

Different NSAIDs are named according to the base molecule from which they are derived. Being able to state to which class a particular NSAID belongs sounds erudite, but I see no worthwhile purpose in knowing this. However, for those who wish to appear erudite, it is not hard. There is a trick. Part of the name of the base molecule is buried in the name of the NDSAID, viz.

s**AL**icylates	actetyls**AL**icylic acid diflunis**AL**
indole**AC**etic	indometh**AC**in sulind**AC**
pyr**AZ**ole	phenylbut**AZ**one azopro**AZ**one
pyrrole**AC**etic	diclofen**AC** ketorol**AC**
PROpionic	ibu**PRO**fen na**PRO**xen
OXycams	pir**OX**icam
alkan**ONES**	nabumet**ONE**

3. HIGHLIGHTS

I find it hard to choose between different NSAIDs objectively. It is my impression that, because there is no difference in efficacy, the choice lies in slight differences in side-effects, and in convenience of dosing.

The main points, as far as I can see are

Asprin	cause GIT problems, bleeding, and kidney problems
Indomethacin	potent but causes kidney problems
Sulindac	spares the GIT
Phenylbutazone	less analgesic than average big bone marrow problems
diclofenac	has liver problems
ketorolac	has GIT and bleeding problems
naproxen	longer lasting that ibuprofen, bit more toxic

About the others, either they are not available in Australia, or I can't find anything one way or the other.

By reputation, ibuprofen seems the safest, but it also seems to be the least potent, gram for gram.

Indomethacin is reputedly good for bone pain (if the kidneys can survive).

Does anyone have any contributions, from their own experiences or preferences?