

This group of drugs exerts its effect via enzymes involved in inflammatory pathways, Cyclo-oxygenase types 1 and 2. Type 1 is called 'constitutive' because it is always there, its functions including protection of the stomach lining, maintenance of renal blood flow, vascular and platelet function.

COX-2 is an 'inducible' enzyme that is expressed in the presence of inflammation; it has also now been shown to be present all the time in the kidney..

- **COX-1 inhibitors:** e.g. ibuprofen, diclofenac may cause significant gastrointestinal side effects as well as occasionally kidney problems after prolonged use. Note that a significant proportion of patients who sustain a serious gastric adverse event (e.g. a bleeding ulcer) have no preceding warning symptoms such as heartburn or epigastric pain.

- **COX-2 inhibitors (e.g. Celebrex, Vioxx)**, the new type of NSAID, are as beneficial as traditional NSAIDs but are thought to carry a lower risk of gastrointestinal adverse effects.

Celecoxib (Celebrex) may be used for acute pain at a dose of 400mg initially and 200mg prn (as required) on the first day and then 200mg twice a day as required. In Rheumatoid arthritis, a dose of 100-200mg twice a day is used.

Rofecoxib (Vioxx) is used for acute pain at 50mg four times a day and for Rheumatoid arthritis at 25mg four times a day. ***This drug was withdrawn in 2005***

Eterocoxib (Arcoxia) has recently been found very beneficial in trials for acute gout ([1](#)), and is used clinically for osteoarthritis, rheumatoid arthritis and gout. It has rapid onset of pain relieving action (24 minutes) and anti-inflammatory effect and each dose lasts up to 24 hours. This may be of use in exacerbations of arachnoiditis or in the early stages, to reduce inflammation and the pain associated with it.

However, COX-2 inhibitors carry the same significant risks of cardiorenal adverse effects such as hypertension, fluid and electrolyte abnormalities, congestive heart failure, renal failure etc. as other NSAIDs.

This type of drug is not generally effective for the relief of neuropathic pain. NSAIDs can however be helpful in relieving musculoskeletal pain including joint pain, which can arise as secondary features.

As arachnoiditis has an inflammatory component, some patients find that NSAIDs help to reduce the impact of a 'flare-up'.

Protection against the gastric side effects may be achieved using proton pump inhibitors such as Losec.

[1] Schumacher HR, Boice JA, Daikh DI, Mukhopadhyay S, Malmstrom K, Tate GA, Molina J
British Medical Journal

2002 Jun; 324: 1488-1492 Randomised double blind trial of etoricoxib and indomethacin in treatment of acute gouty arthritis.