

NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDs)

CLINICAL QUESTION

Are NSAIDs effective in the management of chronic non-malignant low back pain?

THE EVIDENCE

Treatment	Condition	Comparator	Relevant Results/Authors' Conclusions [#]
NSAIDs [†] (naproxen sodium ^a , diflunisal ^a)	Chronic non-malignant low back pain (definition of chronic pain not provided)	Placebo (three group crossover study)	Limited evidence that naproxen sodium was more effective than placebo. Naproxen sodium provided slightly better results than diflunisal. Follow-up at 2 weeks.
NSAID [‡] (diflunisal)		Paracetamol ^a	Limited evidence that diflunisal decreased pain, compared to paracetamol. More patients reported better outcomes with diflunisal. Follow-up at 4 weeks.
NSAID [§] (piroxicam ^a)		NSAID (indomethacin ^a)	Limited evidence that piroxicam had similar efficacy and side effects, compared to indomethacin. Follow-up at 6 weeks.
NSAID [¶] (ketoprofen ^a)		NSAID (diclofenac sodium ^a)	Limited evidence that ketoprofen showed similar efficacy and side effects, compared to diclofenac sodium. Follow-up at 1 and 2 weeks.

[†]Based on one **POOR*** quality randomized controlled study (RCT) published in 1982; [‡]Based on one **AVERAGE*** quality RCT published in 1982; [§]Based on one **POOR*** quality RCT published in 1984; [¶]Based on one **POOR*** quality RCT published in 1991; [#]Refer to Grading Key document for explanation of evidence grading; NSAID – non-steroidal anti-inflammatory drug

ADDITIONAL NOTES

^aDrugs included in the Compendium of Pharmaceuticals and Specialties (2004): diclofenac sodium (Voltaren[®], Novo-Difenac[®], Apo[®]-Diclo); diflunisal (Novo-Diflunisal, Apo[®]-Diflunisal, Dolobid[®]); indomethacin (Novo-Methacin, Apo[®]-Indomethacin, Indocid[®]); ketoprofen (Orudis[®], Rhovail[®], Apo[®]-Keto); naproxen sodium (Anaprox[®]); paracetamol (Acetaminophen, Tylenol[®]); and piroxicam (Novo-Pirocam[®], Apo[®]-Piroxicam, Feldene[®]).

IMPLICATIONS FOR PRACTICE

What we don't know:

- Are NSAIDs more effective than other therapies and drugs, such as simple analgesics?
- What are the long-term effects (risks of gastrointestinal and other side effects) of NSAIDs? Does the number and severity of side effects vary among the different types of NSAIDs?

Research Evidence: What we know

In patients with chronic non-malignant low back pain, the evidence indicates that no one NSAID is more effective than another.

The mild to moderately severe **side effects** associated with NSAIDs include: abdominal pain, diarrhea, edema, dry mouth, rash, dizziness, headache, and tiredness.

Recommendation from Clinical Ambassadors

NSAIDs work, but are not a benign treatment. There doesn't seem to be much reason to choose one NSAID over another.

The Clinical Ambassadors: Dr Pamela Barton, Dr Saifee Rashid, Dr Paul Taenzer

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Reference: This Evidence Brief is based on results from an **AVERAGE*** quality systematic review (SR).
Koes BW, Scholten RJ, Mens JM, Bouter LM. Efficacy of non-steroidal anti-inflammatory drugs for low back pain: a systematic review of randomised clinical trials. *Annals of Rheumatic Diseases* 1997;56(4):214-23.

***Quality ratings for RCTs & SR:** Good ● Average ● Poor ●

[Key to Evidence Gradings](#)

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