

Cochrane Review Tackles Acute Postoperative Pain

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September 15, 2011 — Findings from the latest Cochrane review of oral analgesics in acute postoperative pain are in, and investigators hope the results will help inform physicians and patients.

The review, [published online](#) September 7, is the latest in a series of analyses of single-dose oral analgesics and includes about 350 studies spanning some 45,000 patients.

Investigators have identified 46 drug or dose combinations with reliable evidence on efficacy in acute pain.

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"There are very good reasons why one drug is unlikely to work for every individual with pain," lead author Andrew Moore, MD, from the Pain Research Nuffield Division of Anaesthetics at the University of Oxford in the United Kingdom, told *Medscape Medical News*. "Pain is so complex: in its pathways; in its genetics; in the modulation of pain by the brain, which we are only now coming to understand; and in the way in which our bodies handle and respond to drugs. It is inevitable that to do good for everyone, we need access to a range of therapies."

The investigators included only high-quality trials of standardized design and outcome reporting. The studies reported both efficacy and harm. Event rates with placebo were consistent in larger data sets.

The researchers identified several effective interventions with small numbers needed to treat.

Drugs With Low Numbers Needed to Treat

Oral Analgesic	Number Needed to Treat	95% Confidence Interval
Ibuprofen 400	2.5	2.4 - 2.6
Diclofenac 50 mg	2.7	2.4 - 3.0
Etoricoxib 120 mg	1.9	1.7 - 2.1
Codeine 60 mg with paracetamol 1000 mg	2.2	1.8 - 2.9
Celecoxib 400 mg	2.5	2.2 - 2.9
Naproxen 500/550 mg	2.7	2.3 - 3.3

Several drugs afforded a long duration of action (≥ 8 hours). These included etoricoxib 120 mg, diflunisal 500 mg, oxycodone 10 mg with paracetamol 650 mg, naproxen 500/550 mg, and celecoxib 400 mg.

However, not all patients experienced good pain relief, and for many drug and dose combinations, at least half of the people taking them did not achieve 50% maximum pain relief over the course of 4 to 6 hours.

Some drugs were evaluated in reviews, but had no available trial data. These included

- acetaminophen,
- meloxicam,
- nabumetone,
- nefopam,
- sulindac,
- tenoxicam, and
- tiaprofenic acid.

The authors also report inadequate data for

- dexibuprofen,
- dextropropoxyphene 130 mg,
- diflunisal 125 mg,
- etoricoxib 60 mg,
- fenbufen, and
- indomethacin.

"Where there is no evidence of efficacy, the drugs in question should probably not be used to treat acute pain," the authors pointed out.

Dr. Moore told *Medscape Medical News* that acetaminophen at 1000 mg was an especially poor analgesic.

Chronic Pain Next

"This work on acute pain is just one part of a larger effort in pain in general," he said. "Next year, for example, we hope to have a similar document looking at migraine and providing information especially about over-the-counter medicines, since most people with migraine never even see a doctor."

Dr. Moore said other efforts are currently underway for chronic pain, both musculoskeletal and nerve injury pain. "Here there are major methodological issues that mean that we have to look at chronic pain results with a cold and fishy eye. To be honest, there are results coming here that really will surprise and will require substantial rethinks by all sorts of regulatory and clinical bodies."

This review was supported by the Oxford Pain Research Trust. The investigators have disclosed no relevant financial relationships.

Cochrane Database Syst Rev. Published online September 7, 2001. [Abstract](#)

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