



Title	Topical or Oral Ibuprofen for Chronic Knee Pain in Older People. The TOIB Study
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Aim

To determine whether general practitioners (GPs) should advise their older patients with chronic knee pain to use topical or oral nonsteroidal antiinflammatory drugs (NSAIDs).

Conclusions and results

Global WOMAC scores were equivalent when comparing the oral and topical groups at all follow-up assessments in both the randomized controlled trial (RCT) and the patient preference study (PPS). No differences were found in any of the secondary outcomes. However, the RCT suggested that those in the topical groups were more likely to have more severe overall pain and disability as measured by the chronic pain grade and to report changing treatment because of inadequate pain relief. This equivalence in outcome may be because topical or oral NSAIDs are equally effective, or that they are equally ineffective. No differences were found in the rate of major adverse effects. Some differences appeared in the number of minor adverse effects. In the RCT: 17% of those in the oral group and 10% of those in the topical group had a defined respiratory adverse effect (95% CI for difference -17%, -2.0). Also a difference appeared in mean creatinine, suggesting an adverse effect from oral NSAIDs on renal function. The mean difference in change of serum creatinine was: -3.7mMol/L (-6.5, -0.9) more in the oral group than the topical group; and 11% of those in the oral group reported changing treatment because of adverse effects compared with 1% in the PPS ($P=0.02$). None of these differences were observed in the PPS.

Recommendations

Advice to use either oral or topical preparations has an equivalent effect on knee pain, but oral NSAIDs appear to produce more minor adverse effects than topical NSAIDs. Generally, these data support advice to use topical NSAIDs in preference to oral NSAIDs for older people with knee pain. However, for patients who prefer oral NSAID preparations rather than a topical NSAID,

particularly those with more widespread or severe pain, the oral route is a reasonable treatment option as long as patients are aware of the risks of potentially serious adverse effects from oral medication.

Methods

See Executive Summary link at www.ncchta.org/execsumm/summ1222.shtml.

Further research/reviews required

These results suggest several future studies that would further inform strategies to reduce NSAID-related adverse events and to further delineate the role of topical NSAIDs. These include:

- 1) developing and testing strategies to change prescribing behavior and ensure that older patients are aware of the potential risks and benefits of using NSAIDs;
- 2) observational studies to estimate rates of different predefined minor adverse effects associated with the use of oral NSAIDs in older people; and
- 3) long-term studies of topical NSAIDs in those for whom oral NSAIDs are not appropriate, eg, the very elderly.