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Topical or oral NSAIDs – a decision model

A recently published study in the BMJ suggests that taking the views of the patient into account when prescribing NSAIDs may improve adherence, judgement of efficacy and the doctor-patient relationship. It is important to closely monitor elderly people who use NSAIDs.

A model was developed for shared decision making about the prescription of oral or topical NSAIDs, taking into account both patients and clinicians beliefs about clinical benefit, adverse effects, preferences and costs.

Factors influencing patient treatment choice include:

- Relief of symptoms
- Adverse effects (or perceived risk)
- Availability of alternative treatments
- Perceived severity of condition
- Nature of pain
- Presence of other illness
- Practicality
- Medical advice

The authors found that people with mild, transient pain preferred topical NSAID treatment and people with serious, constant or widespread pain preferred oral NSAID treatment.

The main issues identified were a lack of understanding and knowledge about NSAIDs and the impact this had on informed choice, trust in the GPs advice, perception of risk and education about adverse effects.

Increasing patients' knowledge through education about the causes of their pain, the mode of action of their medication and its potential adverse effects, improves both adherence and informed choice.

In general, older people are relatively trusting and accepting of their GPs advice and decisions about their healthcare. The advice of the GP plays an important role in the type of medication used.

The participants in the study tended to normalise general malaise, aches and a lack of well-being as a result of being old rather than as a consequence of the treatment prescribed. This demonstrates the need to monitor elderly patients closely to ensure that symptoms really are minor and not adverse effects of the medication.

There is a difference between perceptions of GPs and patients of adverse effects of oral NSAIDs. The risk of adverse effects influences choice – patients may opt for less effective treatments to avoid the perceived toxicity of more effective medications.

In summary, GPs should ensure that information about NSAIDs is effectively communicated and the decision to prescribe is made jointly with patients, based on practicality, appropriateness and acceptability.

Reference:

Carnes D, Anwer Y, Underwood M, et al. Influences on older people's decision making regarding choice of topical or oral NSAIDs for knee pain: qualitative study. BMJ 2007; Dec 4 [Epub ahead of print].

Dextropropoxyphene/paracetamol combinations withdrawn in the UK

In January 2005 the UK Medicines and Healthcare products Regulatory Agency (MHRA) announced it was withdrawing dextropropoxyphene/paracetamol products from the market. This followed a review of the safety and efficacy of these products where it was found that the benefits of this medicine did not outweigh the risks.[1]

Authors of a study in England and Wales found that dextropropoxyphene/paracetamol combinations were used as the sole method of suicide in 18% of drug-related suicides and this accounted for 5% of all suicides. They also found that dextropropoxyphene/paracetamol combinations were more likely to result in death when compared with tricyclic antidepressants or paracetamol, and that death can result from relatively few tablets, especially when combined with alcohol.[2]

The minimum lethal dose of dextropropoxyphene is 0.5g (equivalent to 10 tablets of Paradex).[3] Overdoses can result in severe CNS depression as well as cardiac arrhythmias and death can occur very rapidly, in some cases within 15 minutes to an hour.[4]

The MHRA decided to withdraw dextropropoxyphene/paracetamol products over a phased period which ended with the cancellation of licences in December 2007. Patients can still be supplied this medicine off-licence.[5]

A study conducted in New Zealand on opioid poisoning deaths from 2001 – 2002 reported that 16 of 92 opioid poisoning deaths involved dextropropoxyphene. Six of these were unintentional. One of their recommendations was that restrictions in the availability of dextropropoxyphene be considered in order to reduce deaths.[6]

There is no evidence that the combination of dextropropoxyphene and paracetamol has any analgesic benefit over paracetamol alone, particularly when used

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for the treatment of acute pain.[7] While this combination is commonly prescribed to older people, it is particularly unsuitable in this population as it causes sedation, dizziness and increases fall risk. (See pain article page 14)

In October 2006 Medsafe released a prescriber update article that advised of changes to the New Zealand datasheets for dextropropoxyphene/paracetamol products including:

- Narrowing of the indication to "relief of chronic pain of moderate severity"
- Restriction to second-line therapy for patients who have inadequately responded to, or have not tolerated, therapeutic doses of alternative analgesics
- Restriction of the recommended dose to two tablets every four hours with a maximum daily dose of eight tablets

They also reminded prescribers that concurrent use of alcohol is contraindicated.[8]

Dextropropoxyphene/paracetamol combination products are currently on the Intensive Medicines Monitoring Programme (IMMP)

References:

1. MHRA Press Release. MHRA withdraws the pain killer co-proxamol. January 2005. Available from: http://www.mhra.gov.uk/home/idcplg?IdcService=SS_GET_PAGE&useSecondary=true&ssDocName=CON002065&ssTargetNodeId=389. Accessed January 2008

2. Hawton K, Simkin S, Deeks J. Co-proxamol and suicide: a study of national mortality statistics and local non-fatal self poisonings. BMJ 2003; 326: 1006-1008.

3. Moffat AC, Osselton MD, Widdop B (eds), Clarke's analysis of drugs and poisons. Pharmaceutical Press. Electronic version, (Edition 2006).

4. Sweetman SC (Ed), Martindale: The complete drug reference. London: Pharmaceutical Press. Electronic version, (Edition 2007).

5. MHRA. Drug Safety Update. Vol 1(4), November 2007. Available from; http://www.mhra.gov.uk/mhra/drugsafetyupdate. (Accessed January 2007)

6. Reith D, Fountain J, Tilyard M. Opioid poisoning deaths in New Zealand (2001-2002). NZMJ 2005; 118(1209). Available from: http://www.nzma.org.nz/journal/118-1209/1293/.

7. Li Wan Po A, Zhang WY. Systematic overview of co-proxamol to assess analgesic effects of addition of dextropropoxyphene to paracetamol. BMJ 1997; 315: 1565-1571.

8. Medsafe. Dextropropoxyphene-Paracetamol combination products and risk of overdose. Prescriber Update 2006; 27(2): 21-22. Available from; http://www.medsafe.govt.nz/profs/PUarticles/dextro.htm. (Accessed January 2007).

Reduced antibiotic prescriptions results in less resistance at practice level

A recently published study conducted in Wales showed that a reduction in antibiotic dispensing at general practice level resulted in a small but significant reduction in local antibiotic resistance.

The seven-year study involving 240 general practices investigated the number of dispensed antibiotics and antibiotic resistance in coliform isolates from urine samples.

General practices that reduced dispensed antibiotics the most, showed a significant decrease in antibiotic resistance to ampicillin and trimethoprim, compared with practices that reduced dispensed antibiotics the least.

Overall, for practices that reduced their amoxicillin prescribing by 50 items per 1000 patients each year, there was a statistically significant 1.03% decrease in ampicillin resistance. There was also a significant 1.08% decrease in trimethoprim resistance per decrease of 20 trimethoprim items dispensed per 1000 patients each year.

The researchers concluded: "Reducing antibiotic dispensing at general-practice level is associated with reduced local antibiotic resistance. These findings should further encourage clinicians and patients to use antibiotics conservatively."

Other international studies have shown a decrease in antibiotic resistance associated with a population level reduction in antibiotic use. However this is the first study to examine the local impact of reduced antibiotic prescribing on levels of antibiotic resistance.

This is very relevant to general practice and provides the important message to GP's that individual antibiotic prescribing patterns can influence antibiotic resistance in their own practice population.

Reference:

Butler C, Dunstan F, Heginbothom M, et al. Containing antibiotic resistance: decreased antibiotic-resistant coliform urinary tract infections with reduction in antibiotic prescribing by general practices. Br J Gen Pract 2007; 57(543): 785-792.