

Non-steroidal anti-inflammatory drugs (NSAIDs)

**Support for education and learning:
Academic detailing aid**

February 2012

This Non-Steroidal anti-inflammatory drugs (NSAID) Academic detailing aid is designed to be used by experience prescribing and medicines management personnel to support discussions with prescribers on the key prescribing and medicines optimisation messages from the 'NPC Key Therapeutic Topics – medicines management options for local implementation' document. This academic detailing aid is not NICE guidance.

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Supporting notes for the use of NICE Academic Detailing Aids:

Non-steroidal anti-inflammatory drugs (NSAIDs)

- NICE academic detailing aids (ADA) are designed to be used by experienced prescribing and medicines management personnel to support discussions with prescribers on the key prescribing and medicines optimisation messages from the 'NPC Key Therapeutic Topics – medicines management options for local implementation' document (available from www.npc.nhs.uk/qipp/#qipp).
- Before using any NICE ADA, users must familiarise themselves with the content of the relevant QIPP Key Slides and accompanying notes (available to download from www.npc.nhs.uk/qipp/)
- Users are also advised to access the QIPP comparator data on this topic and familiarise themselves with local and national prescribing variations at www.nhsbsa.nhs.uk/PrescriptionServices/3334.aspx
- The principles that support the use of academic detailing to improve clinical decision-making have been documented widely. As far back as 1990, Soumerai and Avorn described how ADAs had been used to reduce inappropriate prescribing as well as unnecessary health care expenditure.¹ The authors highlighted the following techniques as being particularly important to successful academic detailing:
 1. *Conducting interviews to investigate baseline knowledge and motivations for current prescribing patterns.*
 2. *Focusing programmes on specific categories of physicians as well as on their opinion leaders.*
 3. *Defining clear educational and behavioural objectives.*
 4. *Establishing credibility through a respected organisational identity, referencing authoritative and unbiased sources of information, and presenting both sides of controversial issues.*
 5. *Stimulating active physician participation in educational interactions.*
 6. *Using concise graphic educational materials.*

7. *Highlighting and repeating the essential messages.*
 8. *Providing positive reinforcement to improved practices in follow-up visits.*
- The National Audit Office's 2007 publication, '**Influencing Prescribing Cost and Quality – a suggested communication plan for prescribing advisers**',² suggests further ways to increase the impact of communication with clinicians. This includes sections on visiting clinicians, building a relationship, the relationship process, getting agreement, getting your plans adopted, and supporting activities, as well as follow up and monitoring.

Acronyms and symbols used in this ADA include:

NSAID: non-steroidal anti-inflammatory drug

CV: cardiovascular

GI: gastrointestinal

OA: osteoarthritis

PPI: proton-pump inhibitor

MI: myocardial infarction

MHRA: Medicines and Healthcare products Regulatory Agency

The black triangle symbol ▼ identifies newly licensed medicines that are monitored intensively by the MHRA. **All** suspected reactions (including those considered not to be serious) should be reported through the Yellow Card Scheme (www.yellowcard.gov.uk)

References:

1. Soumerai SB. Avorn J. Principles of educational outreach ('academic detailing') to improve clinical decision making. JAMA 1990;263:549–56
2. The National Audit Office. Influencing Prescribing Cost and Quality – a suggested communication plan for prescribing advisers. National Audit Office. 2007

Academic detailing aid

Non-steroidal anti-inflammatory drugs (NSAIDs)

Prescribing considerations

What are the issues here?

- There is wide variation in the volume of NSAID prescribing across PCTs in England. Within this, there is considerable variation in the proportional prescribing of diclofenac and other NSAIDs associated with a higher cardiovascular (CV) risk.¹
- Despite specific safety concerns associated with its use, the volume of etoricoxib ▼ prescribing has remained constant over the last 5 years at around 400,000 items per year within primary care in England.¹

Why is this important?

- All NSAIDs are associated with CV, GI and renal side effects.³
- NSAID treatment can result in hospital admissions for upper GI bleeding, acute renal failure, congestive heart failure and CV events such as stroke and MI.³
- Coxibs and diclofenac are associated with an increased CV risk compared with low dose (1200 mg/day or less) ibuprofen and naproxen.⁶
- Etoricoxib ▼ is contra-indicated in certain patients with high blood pressure because of its cardiovascular risk profile.⁷

What would good practice look like?

- Paracetamol and/or topical NSAIDs, should be offered ahead of oral NSAIDs (including coxibs), or opioids, in osteoarthritis.²
- If an NSAID is clinically necessary, consider **low-dose ibuprofen** (1200 mg/day or less) or **naproxen** (1000 mg/day or less) as first-line options.³
- A proton-pump inhibitor (PPI) should routinely be co-prescribed with an NSAID (including coxibs) for anyone with osteoarthritis,² or rheumatoid arthritis,⁴ and anyone 45 years of age and older with chronic low back pain,⁵ choosing the PPI with the lowest acquisition cost.
- A PPI should also be considered for anyone receiving an NSAID who is at high risk of GI side effects, including those over 65 years or using them long-term.³

What can we do?

- Prescribe NSAIDs at the **lowest effective dose** and for the **shortest period of time** to control symptoms.³
- **Review NSAID prescribing** widely and on a routine basis, especially in people at higher risk of GI, renal and CV morbidity and mortality (e.g. older patients).⁸
- Review patients who are currently prescribed NSAIDs. If continued use is necessary, consider changing to low-dose ibuprofen (1200 mg/day or less) or **naproxen** (1000 mg/day).⁸
- **Review patients on etoricoxib ▼** and ensure prescribing is in line with MHRA and NICE guidance^{2,7}

Note: The term 'NSAIDs' is taken to mean traditional NSAIDs (e.g. diclofenac, naproxen, ibuprofen), etodolac, meloxicam, or coxibs (e.g. celecoxib, etoricoxib)

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Prescribing NSAIDs

A framework for decision-making

Efficacy

- There is no strong evidence to suggest NSAIDs have a consistent benefit over paracetamol in osteoarthritis (although some patients obtain greater symptom relief from NSAIDs).²
- All NSAIDs have analgesic effects of similar magnitude² but there is considerable inter-patient variability.

Safety

- There is no good evidence to suggest there are any differences in the GI risk of NSAIDs (coxibs or traditional NSAIDs) when prescribed with a PPI.³ Choice of NSAID, when prescribed with a PPI, should be informed by other potential side effects, particularly **CV effects**.³
- **Diclofenac** and **coxibs** are associated with the **highest CV risk**, **naproxen** and **low-dose ibuprofen** with the **lowest CV risk**.⁶

Cost

- Etoricoxib ▼ represents around 3% of all NSAIDs prescribed, yet accounts for nearly 13% of the total costs.¹
- Prescribing of etoricoxib ▼ accounts for more than £10 million per year of primary care prescribing costs.¹

Patient factors

- All NSAIDs vary in their level of potential toxicity. When prescribing NSAIDs, individual risk factors should be taken into account, and consideration given to appropriate assessment and/or on-going monitoring for these risk factors.³
- Etoricoxib ▼ requires extra monitoring for CV side effects, including high blood pressure.⁷

References:

1. From data provided by [NHSBSA Prescription Services](#)
2. NICE. Osteoarthritis. Full clinical guideline 59. February 2008
3. NPC. Cardiovascular and gastrointestinal safety of NSAIDs. MeReC Extra 30. November 2007.
4. NICE. Rheumatoid arthritis. Full clinical guideline 79. February 2009
5. NICE. Low back pain. Full clinical guideline 88. May 2009
6. MHRA. Safety of selective and non-selective NSAIDs. October 2006
7. MHRA Drug Safety Update. July 2008
8. NPC. Key therapeutic topics – Medicines management options for local implementation V3. Updated July 2011

The black triangle symbol ▼ identifies newly licensed medicines that are monitored intensively by the MHRA. All suspected reactions (including those considered not to be serious) should be reported through the Yellow Card Scheme (www.yellowcard.gov.uk)

Related NICE guidance

- Low back pain. NICE clinical guideline 88 (2009) accessible at <http://guidance.nice.org.uk/CG88>
- Rheumatoid arthritis. NICE clinical guideline 79 (2009) accessible at <http://guidance.nice.org.uk/CG79>
- Osteoarthritis NICE clinical guideline 59 (2008) accessible at <http://guidance.nice.org.uk/CG59>