

An evaluation of the impact of NICE guidelines regarding COX-2 selective inhibitors on GP prescribing

K. SHEMILT, R. AIRLEY and C. CLAREBURT

Introduction Non-steroidal anti-inflammatory drugs (NSAIDs) are one of the most widely prescribed groups of medicines in clinical practice, their anti-inflammatory, analgesic and anti-pyretic properties making them central to the management of rheumatoid arthritis (RA) and osteoarthritis (OA). However, gastrointestinal toxicities represent some of the most serious side effects of this drug class.¹

The recent introduction of cyclo-oxygenase 2 (COX-2) selective inhibitors for the treatment of RA and OA provide an important means of reducing gastrointestinal (GI) adverse effects. However, this new class of drugs is not recommended for routine use in patients with OA or RA.¹ National Institute for Clinical Excellence guidelines (July 2001) clearly indicate that they should only be used in preference to standard NSAIDs in OA or RA patients at high risk of developing serious gastrointestinal effects.²

The aim of this study was to audit prescribing of COX-2 inhibitors at the Old Swan health centre, Liverpool, with the purpose of describing and measuring the nature and extent to which non-adherence to the NICE guidelines occurs.

Method One hundred patients receiving COX-2 inhibitors were randomly selected for inclusion in this study, and data were collected from computerised patient records, using a standard proforma.

An initial assessment of patient and disease characteristics enabled comparison with those stipulated by the NICE guidelines. Data also included the age, sex, diagnosis, length of course, the COX-2 inhibitor prescribed, and management with OTC analgesics or non-drug treatment.

Particular attention was paid to any factors associated with a high risk of gastrointestinal complications (see Panel), which might justify the prescribing of a COX-2 inhibitor.

Results Of these patients, 74 per cent were diagnosed with OA, 3 per cent had RA, 3 per cent both OA and RA, and a further 20 per cent had neither OA nor RA, while a high proportion of patients (70 per cent) had a high risk of

FOCAL POINTS

- * The recent introduction of cyclo-oxygenase 2 (COX-2) selective inhibitors for the treatment of osteoarthritis (OA) and rheumatoid arthritis (RA) provides an important means of reducing gastrointestinal (GI) adverse effects
- * The National Institute for Clinical Excellence recommends that COX-2 inhibitors should only be used in high GI risk patients with OA or RA. NICE does not recommend COX-2 selective inhibitors in cardiovascular patients or patients who are co-prescribed aspirin
- * Seventy-seven per cent of patients were not prescribed a COX-2 inhibitor according to the guidelines set out by NICE
- * The nature of these non-adherences included the 24 per cent of patients with cardiovascular disease, of whom 16 per cent were co-prescribed aspirin
- * Other areas of concern include patients receiving a COX-2 inhibitor who have not been diagnosed as having OA or RA and patients not at high GI risk
- * This study highlights a need for education relating to the effective and appropriate prescribing of COX-2 inhibitors, with guidance on the correct place of simple analgesics and non-drug therapy

developing gastrointestinal complications.

The most prescribed COX-2 inhibitor was rofecoxib (71 per cent). Seventy-seven per cent of patients were not prescribed a COX-2 inhibitor according to NICE guidelines. The nature of these non-adherences included the 24 per cent of patients with cardiovascular disease, of whom 16 per cent were co-prescribed aspirin. Only 23 patients were prescribed a COX-2 inhibitor by their GP correctly according to the NICE guidelines.

Discussion The main area for which there is scope for improvement is in the prescribing of COX-2 inhibitors for those suffering from cardiovascular disease and co-prescribed aspirin. According to the NICE guidelines, in patients with cardiovascular disease there remains uncertainty over the use of COX-2 inhibitors, therefore routine prescribing, in preference to standard NSAIDs, is not recommended.²

Implementation of the NICE guidelines will depend upon the provision of education relating to the effective and appropriate prescribing of COX-2 inhibitors, together with guidance on the correct place of simple analgesics and non-drug therapy. It is also expected

that this audit will be repeated in late 2002. In doing so, these guidelines will be used to provide the standard for a continuous assessment of the quality of COX-2 prescribing.

References

1. Colburn K, Flores R, Rambharose J. COX-2-specific inhibitors in primary care practice: high benefit, low risk management of osteoarthritis and other inflammatory pain disorders. Pharmatecture: a systematic approach to outcome-effective drug selection; 2001. Available from: URL: www.ahcpub.com/ahc_root_html/hot-sponsored/cox-2.html.
2. National Institute for Clinical Excellence. Guidance on the use of cyclo-oxygenase COX-2 selective inhibitors, celecoxib, rofecoxib, meloxicam and etodolac for osteoarthritis and rheumatoid arthritis. Technology Appraisal Guidance No 27. London: NICE; 2001

School of Pharmacy and Chemistry, Liverpool John Moores University, Byrom Street, Liverpool L3 3AF
K. Shemilt
R. Airley

Octagon Primary Care Group, Liverpool
C. Clareburt

Int J Pharm Pract
2002;10(suppl):R78

Factors associated with high risk of gastrointestinal complications

- * Previous clinical history of gastroduodenal ulcer, bleeding or perforation
- * Co-prescribing of medications known to increase the likelihood of upper GI adverse events, eg, steroids and anticoagulants, or that should not be co-prescribed, eg, aspirin, gastro-protective agents (GPAs)
- * Presence of serious comorbidity
- * Requirement for the prolonged use of maximum recommended doses of standard NSAIDs