“How to” Guide:

Non-steroidal Inflammatory Agents (NSAIDs) in Secondary Care: How to start reviewing use to improve patient safety

AIM
The aim of the review is for secondary care providers to ensure that the prescribing of NSAIDs in their organisations is safe and appropriate. The purpose of this paper is to assist pharmacists who are asked to lead the review process.

EVIDENCE
Cardiovascular Risks
• Since 2006 the UK Commission on Human Medicines has issued a number of warnings about the cardiovascular (CV) safety of traditional NSAIDs.
• Low-dose ibuprofen (up to 1200mg per day) and naproxen have the most favourable CV risk profiles whereas diclofenac has a higher risk, comparable to the COX-2 inhibitors.
• Primary-care prescribing data has shown a notable decline in diclofenac use from 50 per cent of NSAID items prescribed in 2008 to 10 per cent in 2014, but there were more than a 1.5 million prescriptions for diclofenac in England in 2014.
• National hospital data shows a slow decline in diclofenac use starting in 2011, with a steep reduction during 2013. At the end of 2013, diclofenac accounted for 24% of total hospital NSAID prescribing.
• NSAIDs should be used very cautiously in older patients with a history of hypertension or heart failure because of their cardio-renal side effects.

Gastro-intestinal Risks
• All NSAIDs carry a risk of gastro-intestinal (GI) side effects.
• There is an increased risk of serious GI adverse events as soon as NSAID treatment is initiated.
• Co-prescribing gastro-protection significantly reduces the risk of serious GI adverse effects and dyspepsia with any NSAID.
• In 2014 a clinical audit involving 1,278 community pharmacies reported 16,366 patients prescribed NSAIDs. The audit identified almost 3,000 patients regularly prescribed NSAIDs without any gastro-protection; many were aged over 65 so at particular risk of gastro-intestinal damage.
• Ibuprofen is associated with the lowest risk of GI complications; the risks with diclofenac and naproxen are higher.
• The costs of treating NSAID induced adverse events may be greater than tariff reimbursement and the complexity of coding means there is significant opportunity for error, in both reflecting the true incidence of adverse effects and in determining the true costs of treating them.

KEY SAFETY MESSAGES
1. Don’t prescribe NSAIDs unless absolutely necessary
   • Paracetamol works effectively for many people
2. If NSAIDs are necessary, use them wisely
   • Assess benefits and risks carefully: CV, GI and renal
   • Use a drug with a safer CV profile
   • Prescribe the lowest effective dose for the shortest period
3. Consider gastro-protection for those at high risk
4. Review the need for on-going use regularly
HOW TO GET STARTED

- Determine the usage patterns of NSAIDs within the Trust from Pharmacy system
- Highlight areas that have the highest use.
- Ask clinical pharmacists to find out & comment on what they think is driving these usage patterns. It might be processes or the clinical opinion of a particular individual(s).
- Consider benchmarking your use against a similar size Trust for comparison.
- Decide on an appropriate strategy that could be presented to your Trust D&T Committee. The details of this will inevitably depend on what opportunities you consider are available to the organisation in light of local usage patterns and any previous work the Trust has undertaken in this area.

POSSIBLE STRATEGIES

The following are suggested strategies that may be appropriate. You may seek to adopt one or more, or to do something different, or indeed nothing at all if you are sure your data is sufficient to satisfy the Committee that prescribing is currently safe and appropriate throughout the Trust.

- Reduce total use of NSAIDs in one or more high use area
- Change the emphasis of first or second line NSAID choice in one or more area and measure effect.
- Run an education campaign/implement new guidelines in one or more high use area and measure the effect on NSAID prescribing.
- Undertake an audit of prescribing practice against national guidance in a high risk group of patients (e.g., older people).

PRESENTING TO DRUG & THERAPEUTICS COMMITTEE

- Write a “Briefing Paper” outlining your proposed strategy and its rationale for discussion at the Trust Drugs & Therapeutics Committee, along with the relevant usage patterns in the Trust.
- If possible, attend the meeting to provide some direction to the discussion. Present your proposed strategy and actions to the Committee and ask them to approve it.

SUGGESTED ACTIONS TO SUPPORT STRATEGIES

- Produce prescribing guidelines that support the safe and appropriate prescribing of analgesia in the relevant patient groups.
- Review range of stock medicines & pre-packs that are available in target areas.
- Review wording on any relevant PGDs.
- Use surgical pre-admission clinics as an opportunity to advise patients to ensure they have sufficient supplies of appropriate OTC available analgesics at home prior to coming into hospital. Consider use of leaflets outlining specific medicines with dosages and instruction on how to take for target groups. This could also speed up discharge for some patients.
- Ensure pharmacists who are screening TTOs take into account local guidelines & the analgesia the patient has been receiving whilst an inpatient when approving supplies for dispensing. Avoid dispensing items that are clearly unnecessary.
- Ask staff working at ward level (Doctors, nurses, pharmacists technicians, physios etc) to make use of the opportunity to speak to patients about their analgesia requirements at discharge to ensure TTO prescribing is appropriate and takes into account what has been taken as an inpatient and what the patient has at home. This is also an opportunity to explain to the patient how to take the medication and how to step it down as pain resolves. Establish processes that document these discussions and communicate their outcomes to the prescriber.
- Involve GP prescribing leads in developing guidelines for analgesia prescribing in A&E for certain patient groups. Consider signposting certain groups to OTC self-care &/or to start with simple analgesia and to visit GP for ‘something stronger’ if this is ineffective.
- Devise simple measures to monitor the effectiveness of your actions and report these back to the D&T Committee at regular intervals.

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I. MHRA. Cardiovascular safety of Cox-2 inhibitors and non-selective NSAIDs. July 2013.
II. Prescription Cost Analysis- England 2014- Health & Social Care Information Centre
IV. National Prescribing Centre: Cardiovascular and gastrointestinal effects of NSAIDs. MeReC extra number 30, November 2007
V. Community pharmacy NSAID safety audit 2014 – National data from PharmOutcomes. Specialist Pharmacy service