NHS Greater Glasgow and Clyde

CLINICAL GUIDELINE

Oral Non-Steroidal Anti-Inflammatory (NSAID)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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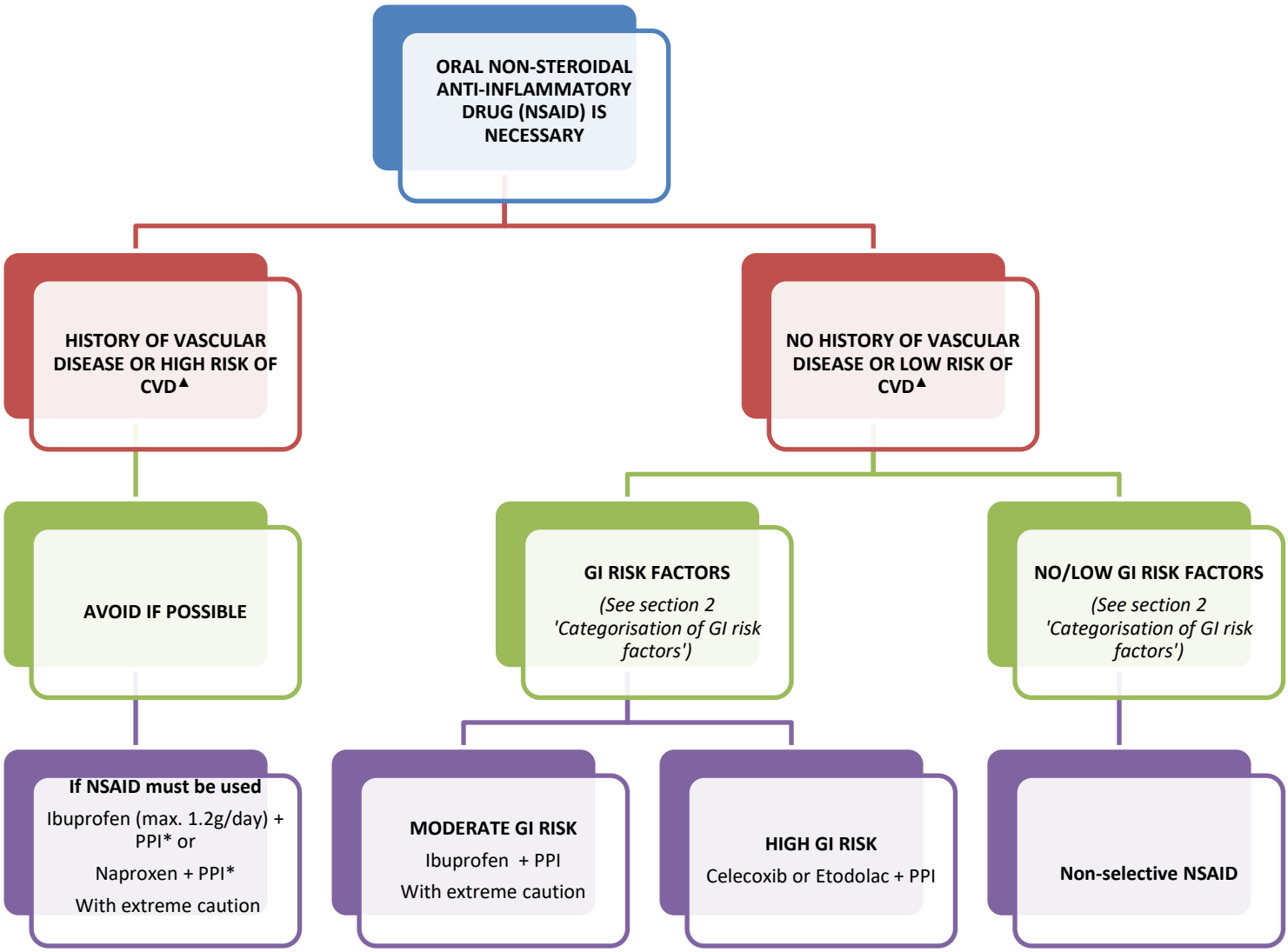
Lead Author:	Caoimhe Smyth
Approval Group:	Medicines Utilisation Subcommittee of ADTC

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

NHS GGC Non-steroidal anti-inflammatory drugs (NSAIDs) Guideline
Section 1: Flowchart



(SEE PAGE 3 FOR DRUG CHOICE AND DOSING INFORMATION)

▲Refer to ASSIGN (http://assign-score.com/estimate-the-risk/) to calculate risk of cardiovascular disease (CVD). High CVD risk is defined within the BNF as greater than 20% over 10 years or if using ASSIGN, a score of 20 or above.

NB Other risk factors such familial hypercholesterolemia, diabetes and renal impairment may affect the assessment of cardiovascular risk and scoring tools should not replace clinical judgement.

***** Because **patients with serious co-morbidities are at risk of a GI event regardless of their other risk factors, a PPI is recommended** for those with CVD or high risk of CVD.

Section 2: GI risk factors

Risk factors for NSAID induced GI adverse effects.

- Age ≥ 65 years
- History of gastroduodenal ulcer, perforation or GI bleeding
- Concomitant use of medication known to increase risk of upper GI adverse events e.g. aspirin, anticoagulants, corticosteroids, SSRIs
- Serious co-morbidity e.g. cardiovascular disease, renal or hepatic impairment, diabetes, hypertension
- Requirement for prolonged duration of NSAID use
- High dose oral NSAID use (e.g. Ibuprofen 2400mg/day, Naproxen 1gram/day)
- Heavy smoking
- Excessive alcohol consumption
- Previous side effects from NSAIDs

Categorisation of GI risk factors.

People are considered at:

- **High risk** if they have a history of previously complicated ulcer, or multiple (>2) risk factors.
- **Moderate risk** if they have 1–2 risk factors.
- **No/Low risk** if they have none (0) risk factors.

Section 3: Formulary choice

NHSGGC Drugs of Choice

Non-selective NSAIDs

Ibuprofen oral 200-400mg three times a day after food

- Ibuprofen dose should NOT exceed 1200mg/day in patient with a history of CVD or high risk of CVD and in elderly people (see BNF for further dosing information)

Or

Naproxen oral 250mg-500mg twice daily after food

Cyclooxygenase-2 (COX-2) inhibitors

Celecoxib 100mg twice daily

Or

Etodolac MR 600mg once daily

NSAIDs should be prescribed at the lowest effective dose for the shortest duration possible

Proton pump inhibitors

Omeprazole oral 20mg once a day *(See BNF for further dosing information)*

Or

Lansoprazole oral 15-30mg once a day *(See BNF for further dosing information)*

When used for gastro-protection, PPIs should only be used for the duration of NSAID use

Section 4: Prescribing notes

- NSAIDs should be prescribed only after an assessment of each patient's individual risk factors, including any history of cardiovascular and gastrointestinal illness
- NSAIDs should be prescribed at the lowest effective dose for the shortest duration possible. Periodically re-evaluate the patient's need for symptomatic relief and response to treatment.
- The co-administration of low dose aspirin with NSAIDs should be avoided if possible due to increased GI risk. Non-selective NSAIDs may also antagonise the anti-platelet effect of low dose aspirin.
- Avoid combinations of NSAIDs (including topical NSAIDs due to the risk of systemic exposure). Patients prescribed a NSAID should be advised to avoid the use of over the counter NSAID preparations.
- When used for gastro-protection, PPIs should only be used for the duration of NSAID use.
- Stop a patient's NSAID if they are unwell with vomiting or diarrhoea (unless minor), or fever, sweats and shaking (unless minor), and restart when they are well (after 24–48 hours of normal eating and drinking)

Cautions/contraindications:

This list is not exhaustive, please refer to BNF or individual Summary of Product Characteristics at http://www.medicines.org.uk/emc for full list regarding cautions, contra-indications, interactions and side effects.

NSAIDS:

- Are contraindicated in severe cardiac failure, severe hepatic failure, severe renal impairment and active peptic ulcer disease, history of GI haemorrhage or recurrent GI ulceration, history of hypersensitivity /severe allergic reaction to an NSAID (including aspirin).
- Are cautioned in mild renal impairment and should be avoided in moderate to severe renal impairment. Concomitant use of NSAIDs and other nephrotoxics (e.g ACE Inhibitors, Angiotensin Receptor Blockers, lithium and diuretics) should be avoided where possible to prevent the risk of acute kidney injury. Please check interactions for drugs that are renally excreted.
- Are cautioned in hepatic insufficiency
- Are cautioned in the elderly and should be avoided where possible

- COX 2 inhibitors (e.g. celecoxib, etodolac) should not be prescribed to patients on concomitant aspirin
- COX-2 inhibitors (e.g. celecoxib, etodolac) or ibuprofen 2.4g/day should not be prescribed in patients who have:
    - Ischaemic heart disease.
    - Inflammatory bowel disease (Caution for all NSAIDs, contraindicated for COX-2 inhibitors only).
    - Peripheral arterial disease.
    - Cerebrovascular disease.
    - Congestive heart failure