10: Musculoskeletal and joint diseases

Several useful resources and pathways for health care professionals and patients to help manage joint pain and rheumatological conditions can be found here:
https://www.sheffieldachesandpains.com/
Minor conditions associated with pain, discomfort and/or fever (e.g. aches and sprains, headache, period pain, back pain) may be suitable for self-care with OTC preparations. For further information please see South Yorkshire Self-Care Guidance

10.1 Drugs used in rheumatic diseases and gout

10.1.1. Non-steroidal Anti-inflammatory Drugs

Ibuprofen 200mg, 400mg (first line up to 1200mg per day) **OTC**

Naproxen 250, 500mg

NICE Guidance NG226: Osteoarthritis – pharmacological and non-pharmacological options

- For all patients with osteoarthritis offer tailored therapeutic exercise (for example, local muscle strengthening, general aerobic fitness). Interventions to achieve weight loss if patient is overweight or obese should also be discussed
  See summary of recommendations in : NICE OA Visual Summary
  Glucosamine is included in the list of items which should not routinely be prescribed in primary care
  https://www.england.nhs.uk/wp-content/uploads/2019/08/items-which-should-not-routinely-be-prescribed-in-primary-care-v2.1.pdf

Prescribing Advice on Safe use of NSAIDs

- If topical NSAIDs are ineffective or unsuitable, consider an oral NSAID for people with osteoarthritis. All NSAIDs should be used at the lowest effective dose for the shortest possible time
- Prescribing should take into account the safety profiles of individual NSAIDs and any risk factors the person may have including age, pregnancy, current medication and comorbidities

For monitoring requirements see chapter 20 (Appendix 5)
For use in low back pain and sciatica see: https://www.nice.org.uk/guidance/ng59
For general NSAID prescribing issues see: https://cks.nice.org.uk/nsaids-prescribing-issues

Gastrointestinal risks

- Of the traditional NSAIDs, low dose ibuprofen offers the lowest gastrointestinal risk.
- NICE recommends all patients with osteoarthritis and rheumatoid arthritis prescribed an oral NSAID should be offered a concomitant proton pump inhibitor (PPI). Prescribers should also consider prescribing a PPI for all other patients on NSAIDs with an increased risk of GI adverse event including
  - Patients over 65
  - Those co-prescribed other medication known to increase risk of gastrointestinal adverse events e.g. low dose aspirin or SSRIs
  - Those requiring the prolonged use of maximum recommended doses of standard NSAIDs
  - People who smoke heavily or have excessive alcohol use
  - Those with serious co-morbidity (e.g. significant cardiovascular disease, diabetes)
  - Previous clinical history of gastroduodenal ulcer, gastrointestinal bleeding or gastroduodenal perforation

Cardiovascular thrombotic risk

- Naproxen 1000mg daily has a lower thrombotic risk than COX-2 inhibitors and diclofenac 150mg daily
- Ibuprofen 1200mg daily or less is not associated with an increased risk of myocardial infarction
- High-dose ibuprofen (≥2400mg/day) can cause a small increase in cardiovascular risk:
  https://www.gov.uk/drug-safety-update/high-dose-ibuprofen-2400mg-day-small-increase-in-cardiovascular-risk

- Diclofenac is associated with cardiovascular risks that are higher than other non-selective NSAIDs, and similar to the selective COX-2 inhibitors. Diclofenac and COX-2 inhibitors are not included in the Sheffield Formulary.

See:
https://www.gov.uk/drug-safety-update/nsaids-and-coxibs-balancing-of-cardiovascular-and-gastrointestinal-risks

Renovascular risk

- All NSAIDs may impair renal function. They are contra-indicated in patients with severe heart failure and should be used in caution in patients with renal, cardiac or hepatic impairment.
- Renal function should be monitored at least annually during long term NSAID treatment
- Fluid retention may occur, (rarely precipitating CHF); blood pressure may be raised.

10.1.2 Corticosteroids

10.1.2.1 Systemic Corticosteroids (see section 6.3.2)

10.1.2.2 Local Corticosteroid Injections

Methylprednisolone acetate 40mg/ml 1, 2 and 3ml,
Methylprednisolone acetate 40mg/ml + lidocaine 10mg/ml 1 and 2ml
Triamcinolone acetonide 40mg/ml 1ml, 10mg/ml 1 and 5ml

For specific uses see product literature available at https://www.medicines.org.uk/emc

NG266 advises prescribers to consider intra-articular corticosteroid injections when other pharmacological treatments are ineffective or unsuitable, or to support therapeutic exercise. Explain to the person that these only provide short-term relief (2 to 10 weeks).

10.1.3 Drugs that Suppress the Rheumatic Disease Process

Specialist initiation only

Shared care protocols to support the safe use of azathioprine and mercaptopurine tablets, leflunomide tablets, methotrexate tablets and subcutaneous injection, sulfasalazine tablets, hydroxychloroquine tablets and mycophenolate tablets are available here:
http://www.intranet.sheffieldccg.nhs.uk/medicines-prescribing/shared-care-protocols.htm

Local protocol stipulates prescribing oral methotrexate as 2.5mg tablets. If methotrexate sub cut injection is prescribed, the prescription needs to state brand (Metoject or Nordimet). The directions on the prescription should state the weekly dose and the total number of tablets/dose and volume of injection to fulfil that dose. Doses should be given once a week on the same day each week; the day of the week should be specified on the prescription. The maximum quantity issued should not be more than 12 weeks, to tie in with blood monitoring requirements. Record blood test results in patients' handheld record.

10.1.4 Gout and cytotoxic-induced hyperuricaemia (see also information 10.1.1)

NICE NG219 Gout: diagnosis and management was published in June 2022.
The recommendations in BNF, CKS and Sheffield aches and pains may currently differ from advice in NICE NG219 but are included as a useful resource pending possible updates.
For advice on treatment of acute gout flares and long-term management and monitoring, including preventing gout flares when starting or titrating urate-lowering therapies please refer to NICE NG219 and the Management of Gout Visual Summary and the Long-term management of Gout with ULTs Visual Summary

Acute Gout

NSAID at the maximum dose (for example, naproxen) (consider adding a PPI) or
Colchicine 500micrograms (see BNF for dose) or
Oral corticosteroid short course (off label) CKS recommends: a dose of corticosteroid equivalent to 30-35 mg prednisolone once a day for 3-5 days
If oral NSAID and colchicine are contraindicated, not tolerated or ineffective, consider intra-articular/intramuscular corticosteroid (off-label)

Long term management of gout

Urate-lowering therapies (ULTs) using a treat-to-target strategy
Allopurinol 100mg, 300mg or
Febuxostat 80mg, 120mg

NB Offer allopurinol first-line if major cardiovascular disease (for example, previous myocardial infarction or stroke, or unstable angina).
Consider switching to second-line treatment with allopurinol or febuxostat if the target serum urate level is not reached or first-line treatment is not tolerated, taking into account the person's comorbidities and preferences.

MHRA / CHM advice re febuxostat serious hypersensitivity reactions (June 2012)
Patients should be advised of the signs and symptoms of serious hypersensitivity with febuxostat (See BNF)
In patients with pre-existing major cardiovascular diseases, febuxostat therapy should be used cautiously, particularly in those with evidence of high urate crystal and tophi burden or those initiating urate-lowering therapy May 2023

10.1.5 Other drugs for rheumatic diseases

10.2 Drugs used in neuromuscular disorders

10.2.2 Skeletal Muscle Relaxants

Treatments used for the relief of chronic muscle spasm or spasticity associated with multiple sclerosis or other neurological damage will be guided by the specialist:

Baclofen for use in muscle spasm for palliative care, see here:
http://nww.sth.nhs.uk/STHcontDocs/STH_CGP/PalliativeCare/SheffieldPalliativeCare Formulary.pdf

Second line drugs initiated by a specialist:

Dantrolene: see link to Chapter 20 for monitoring requirements
Tizanidine: see link to Chapter 20 for monitoring requirements

Nocturnal leg cramps
Quinine sulphate 200mg, 300mg

Quinine salts are not recommended for the routine treatment of nocturnal leg cramps as overall efficacy is modest; quinine should only be considered when cramps cause regular disruption of sleep and non-pharmacological measures (e.g. passive stretching exercises) have failed (MHRA Drug Safety Update December 2014).

After an initial trial of 4 weeks, treatment should be stopped if there is no benefit. If quinine treatment shows benefit and is continued, treatment should be interrupted every 3 months to reassess if treatment still necessary.

https://www.gov.uk/drug-safety-update/quinine-reminder-of-dose-dependent-qt-prolonging-effects-updated-medicine-interactions

Use caution if prescribing quinine in patients with conditions that predispose to QT prolongation, such as pre-existing cardiac disease or electrolyte disturbances or in patients taking other medicines that prolong QT interval. Further advice on drug interactions is here:
https://bnf.nice.org.uk/interaction/quinine-2.html

10.3 Drugs used for the treatment of soft-tissue disorders and topical pain relief

10.3.2 Rubefacients and topical NSAIDs, capsaicin and poultices

Topical NSAIDs
Ibuprofen Gel 5%, 50g, 100g OTC
Ibuprofen Gel 10% 100g

Counselling, photosensitivity: avoid exposure of treated area to sunlight

NG266 recommends prescribers to offer a topical NSAID to people with knee osteoarthritis and consider a topical NSAID for people with osteoarthritis that affects other joints. Topical NSAIDs should be considered ahead of oral NSAIDs, COX-2 inhibitors, paracetamol or opioids
T**he evidence available does not support the use of topical rubefacients in acute or chronic musculoskeletal pain.** Furthermore topical NSAIDs and rubefacients are included in the Sheffield STOP list and self-care can be encouraged except where prescribing is in line with NICE advice. Please also note that ibuprofen gel 5% & 10% are classified as Green on the TLDL, if prescribed in line with NG226.
Capsaicin cream 0.025% is not recommended for osteoarthritis

9th Edition
Date: October 2021,
Interim update 10.1.4: October 2022
Interim update 10.1 and 10.3 March 2023
Interim update10.1.4 febuxostat MHRA July 2023
Review Date: October 2024