GOUT MANAGEMENT

Gout is the most common cause of inflammatory arthritis worldwide. It is caused by deposition of excess monosodium urate crystals in joint fluid, cartilage, bone, tendon, bursa etc. Some patients experience acute joint swelling, pain and redness during gout attacks, known as acute gouty arthritis. While others may have tophi, chronic arthritis, urolithiasis, and renal disease.

ACUTE GOUT MANAGEMENT

Management of Acute Gout (pharmacological):

Treat as early as possible

1st line: An NSAID at maximum dose or colchicine in divided doses are the drugs of choice when no contraindications, until symptom relief

1. **NSAIDs** such as naproxen 500 mg twice daily or etoricoxib 90-120 mg once daily. Co-prescribe a proton pump inhibitor for gastric protection.
2. **Colchicine** 500mcg tds. To stop if diarrhoea occurs.
3. Alternative: A short course of **oral glucocorticoids** (prednisolone 20 mg one daily for 7 days) or IM injection (methylprednisolone 120 mg or 8omg if body weight <60kg) or intraarticular injection (in monoarthritis) are highly effective and can be used in patients unable to tolerate NSAIDS or colchicine or have contraindications.

Paracetamol/codeine could be added for pain relief.
For patients with poor response to monotherapy, **combination therapy** can be considered: NSAIDS plus glucocorticoids plus colchicine.

Management of Acute Gout (Non-pharmacological):

- Affected joint needs to be rested and kept cool, can use ice packs.
- Review gout-inducing medications such as diuretics.
- All patients require verbal and written advice about the causes/consequences of gout, how to manage acute attacks, lifestyle advice (diet, alcohol, and exercise).
- Patient information is available on www.versusarthritis.org.
- Encourage >2l of fluids daily to avoid dehydration.
- Assess and treat CVS risk factors: obesity, diabetes, hyperlipidaemia, hypertension, smoking.

Gout Attacks during Uric acid lowering therapy (ULT):

- Provide emergency supply of medication in advance to be used during acute attack.
- Manage flares as per acute attacks section.
- Assess compliance or increase the ULT dose to achieve serum uric acid target.
- Review trigger factors such as medication, trauma, diet, weight gain, excess alcohol.
- **Do not interrupt ULT during acute attack.**

LONG TERM MANAGEMENT OF GOUT

Long Term Management of Gout :
ULT (uric acid lowering therapy) should be offered to all patients who have a diagnosis of gout, particularly the following:

- Recurring attacks (2 or more attacks in 12 months)
- Presence of tophi
- Chronic gouty arthritis/joint damage
- Renal impairment
- Primary gout starting at a young age
- **Target serum uric acid (sUA) is <300 mcmol/l.**

Once Target sUA <300mmol/l and Clinical Remission (tophi resolved, attacks ceased) Achieved:

- Consider reducing ULT dose to maintain serum uric acid between 300 and 360mcmol/l.
- Check serum uric acid annually to ensure target still maintained.
- Continue ULT for life unless modifiable risk factor successfully addressed.

1st line: Allopurinol.

- Can be commenced during an acute attack *see note below
- Start at 100 mg daily and titrate up by 100 mg every 4 weeks until sUA target is achieved (maximum dose is 900 mg daily, >500mg daily should be taken in divided doses)
- In patients with eGFR<30, starting dose is reduced to 50 mg daily and increments of 50mg every 6-8 weeks.
- Warn patients with low eGFR of higher risk of rash/cutaneous adverse reactions, with advice to stop allopurinol immediately if rash occurs and seek medical attention.

DO NOT STOP Allopurinol / Febuxostat during acute attacks.

- NSAIDs at half of the maximum dose or colchicine 500mcg od-bd are required to prevent acute attacks associated to allopurinol commencement for at least the first 6 to 8 weeks (BSR recommends up to 6 months).
- If contraindications or unable to tolerate NSAID/colchicine, consider prednisolone 2.5-5 mg daily.

2nd Line: Febuxostat can be used as an alternative for patients in whom allopurinol is contraindicated, not tolerated or insufficient.

- Start at 80mg daily.
- Increase to 120 mg daily after 4 weeks if necessary to achieve serum Uric Acid <300 mcmol/l

Referrals to Secondary Care:

- Recurrent attacks despite target sUA.
- sUA unresponsive to treatment despite maximum doses of ULT or contraindications.
- Prolonged attack of gout not settling with standard management including combination of NSAID/colchicine/corticosteroids.

3rd line: Sulfinpyrazone or benzbromarone (specialist only).

Abbreviations. sUA: serum uric acid, ULT : uric acid lowering therapy, eGFR: estimated glomerular filtration rate, NSAID: non-steroidal anti-inflammatory drug, BSR: British Society for Rheumatology.
*Allopurinol can be started during an acute attack to improve patients compliance (supported by Rheumatology bodies other than BSR, but likely to be taken up by BSR imminently.