Gateshead Clinical Commissioning Group

QE Gateshead
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Prescribing Guidance for the Treatment of Gout

Implementation date: Dec 2011

Updated: January 2014

Review: January 2016

This guideline has been prepared and approved for used within Gateshead in consultation with Gateshead CCG and Secondary Care Trusts.

Approved by:

Committee	Date
Gateshead Medicines Management Committee	15th January 2014
Alliance Medicines Optimisation, Pathways and Guidelines Committee	27th March 2014

Equality & diversity statement: this guideline will aim to be fair to all patients regardless of age, disability, gender, race, sexual orientation, religion/ belief or any other factor that may result in unfair treatment or inequalities in health/ employment.

This guideline is not exhaustive and does not override the individual responsibility of health professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Full details of contra-indications and cautions for individual drugs are available in the BNF or in the Summary of Product Characteristics (available in the Electronic Medicines Compendium) www.emc.medicines.org.uk

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GATESHEAD MEDICINES MANAGEMENT COMMITTEE

PRESCRIBING GUIDANCE FOR THE TREATMENT OF GOUT

Publication Date: Jan 2014
Review Date: Jan 2016

1. Development

This guideline was developed by the Gateshead Medicines Management Committee in consultation with GPs, Nurse Specialists and the Consultant Rheumatologists.

The key contact for information is Dr Jennifer Hamilton, Consultant Rheumatologist, Queen Elizabeth Hospital, Gateshead Health NHS Foundation Trust.

2. Background

These guidelines have been developed to help healthcare professionals with the decision-making process involved in the treatment and management of gout.

3. Aim

To promote the rational treatment of gout across both primary and secondary care so that the treatment of gout is optimally managed. This should decrease casualty attendance, acute admissions and reduce the need for new and follow up rheumatology appointments.

4. Implications

Implementation of the attached guidance will improve the safe and effective use of medicines used for gout in Gateshead. There will be an improvement in the management of these patients resulting in a decrease in the inappropriate use of expensive 2nd and 3rd line agents.

These guidelines supersede previous local guidelines for the management of gout.

5. Implementation & Audit

It is anticipated that the guidelines will be re-launched in April 2014. Copies of the guidelines will be circulated to all practices and community pharmacies in Gateshead. The guidelines will also be widely circulated through out Gateshead Health NHS Foundation Trust and will be available on the intranet.

This policy will be reviewed on a biannual basis or in the intervening period if new evidence is published that means an update or revision is required before two years have passed.

6. References

1. British National Formulary September 2011 62nd Edition. The Pharmaceutical Press / British Medical Association 2011.

2. Lothian Joint Formulary. Date accessed 30/09/2011

3. BSR and BHPR, BOA, RACP and BSAC guidelines for the management of hot swollen joint in Adults BSR standards, guidelines and audit working group Rheumatology 2006;45:1039-1041

4. BSR and BHPR rheumatology guideline for the management of gout Rheumatology 2007;46(8):1372-4

5. NICE Feboxustat for the management of hyperuricaemia in people with gout available at http://www.nice.org.uk/nicemedia/live/12101/42738.pdf

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Clinical diagnosis of gout

Consider septic arthritis (see notes)

***NSAID** – all equally effective if optimum dose (ibuprofen up to 2.4g daily in 3-4 divided doses, naproxen up to 500mg bd)

OR

Colchicine 500microg alt days up to QDS

OR

Steroids

- PO prednisolone 7.5-15mg (for 5-10 days)
- IM kenalog 40mg
- Intra-articular steroid

Review diuretics and stop where possible (except heart failure)

Can advise patients to apply ice packs to affected joint if appropriate and no contraindications e.g.severe PVD, neuropathy

Bloods for Urate, U + E, Glucose, Lipids

Advice re weight, exercise, diet, alcohol, fluid intake, and provide info leaflet

- Bloods for Urate, U + E, Glucose, Lipids
- BP
- Lifestyle
- Cardiovascular risk profile – QRISK / JBS
- **High risk factors – see below**

Advice

- Optimise weight
- Exercise
- Modify diet
- Reduce alcohol
- Maintain fluid intake

<u>High risk factors</u> **OR** <u>Recurrent acute gout</u> (within 1 year)

- Tophi,
- GFR <80,
- Uric acid stones and gout
- Need to continue diuretics

Allopurinol – 1-2 weeks after inflammation settled

- Initially 100mg OD
- WITH prophylactic low dose NSAID or colchicine until Urate <0.3
- Up titrate every 3-4 weeks by 100mg – aim Urate <0.3
- DON'T stop during acute attacks

If allopurinol not tolerated - **Febuxostat 80mg OD** (Incr to 120mg od after 2-4 weeks if urate >0.6)

If ongoing attacks or hot joint requiring aspiration – REFER TO RHEUMATOLOGY

Notes

Patients with a short history of a hot swollen and tender joint (or joints) with restriction of movement should be regarded as having septic arthritis until proven otherwise. Any patient with no previous history of gout presenting with symptoms as above should be discussed with the on call rheumatologist 9-5 (Queen Elizabeth Hospital) or orthopaedics out of hours. Synovial fluid must be aspirated, gram stain and culture and polarised microscopy obtained. Important diagnostic information can be lost if samples are sent from primary care and left overnight hence patients should be seen in secondary care. Oral antibiotics are in general not sufficient as first line treatment for septic arthritis therefore if joint sepsis is a possibility it should not be treated in primary care.

Both gout and pseudogout can mimic septic arthritis as both conditions can lead to pyrexia, severe pain and swelling. In the first instance discuss with the on call rheumatologist (Monday to Friday 9 to 5). If sepsis is considered a possibility and follow instructions above.

Most hyperuricaemic individuals do not develop gout. Joint symptoms in the presence of hyperuricaemia should not be attributed to gout unless typical of gout or confirmed by monosodium urate crystal identification.

Treatment of an acute attack

NSAIDs, colchicine and steroids, IA, IM or oral are all effective in terminating an acute attack. In general colchicine or NSAIDs should be used as first line however the agent used will depend on individual patient factors i.e. contraindications to one of the agents due to drug interactions or comorbidities (see BNF for further details). If a joint aspiration is required in a patient with known gout and no features to suggest septic arthritis there will be occasions when an experienced practitioner will be happy to inject steroid as a first line treatment.

Dose

- **Colchicine** *tablets 500micrograms*: 500micrograms initially, if tolerated take one tablet twice a day on second day and then three times a day on the third day. Max dose is 500micrograms four times a day. Continue at the tolerated dose.
- **Kenalog** *IM injection* 40mg- this will provide cover for up to 3 months. 40mg of Kenalog provides the equivalent of about 3-4mg of prednisolone daily.

If in doubt discuss with one of the rheumatology team

Prescribing notes

- Patients with an acute hot joint and effusion and without a diagnosis should be referred to secondary care for aspiration, gram stain and polarised microscopy. (See above).

- Low dose colchicine is as effective as higher dose regimes and is associated with fewer side effects.

- Colchicine would be first choice for the elderly, patients on warfarin or with renal failure.

- Colchicine should be used instead of NSAIDS in the elderly, patients receiving anticoagulants or in heart failure, or when NSAIDs are otherwise contra–indicated.

- The dose of colchicine should be reduced if diarrhoea occurs. It can be effective at doses as low as 500mcg on alternate days.

- The dose of colchicine and NSAIDs should be reduced after an acute attack has settled and continued at a low dose until the patient is stabilised on allopurinol. (Normally around 6 weeks but risk of acute attacks can continue until target urate dose is achieved) If acute attacks continue after stopping consider either low dose colchicine until target urate level achieved or IM kenalog 40mg.

- Patients can be advised to increase the dose of colchicine up to 500mcg qds if they feel an attack coming on.

- Risk factors for colchicine toxicity
    - Renal or hepatic impairment avoid if possible or if no alternative therapy exists for patients with creatinine clearance < 30mL/minute, extend the interval between colchicine treatment courses to 2 weeks during an acute gout flare
    - Increasing age
    - Gastrointestinal or cardiac disease
    - High doses of colchicine (> 1.5mg daily)
    - Prescribing colchicine concurrently with drugs that inhibit CYP3A4 or P-gp. Strong inhibitors of CYP3A4 include:
        - Antiarrhythmics - digoxin
        - Antibiotics - clarithromycin, erythromycin
        - Antifungals - fluconazole, itraconazole ketoconazole
        - Calcium-channel blockers - diltiazem, verapamil
        - Fibrates - fenofibrate, gemfibrozil
        - Grapefruit juice
        - Immunosuppressants - cyclosporin, tacrolimus
        - Statins - atorvastatin, fluvastatin, pravastatin, simvastatin

- Kenalog is a good choice for patients who have contraindications or are unable to tolerate colchicine or NSAIDs, where there is polyarticular gout or frequent

attacks of gout despite either colchicine or an NSAID and this is delaying the introduction of a uricosuric agent.

- Intra articular steroid should not be injected into the same joint within a 3 month period and more than 3 injections should not be administered into the one joint in the course of a year. Good choice for single large joint effusions where rapid treatment is needed to keep the patient mobile and prevent admission.

Prophylaxis of gout

Dose

- Allopurinol *tablets 100mg, 300mg*: initially 100–300mg daily; maintenance dose according to severity, 100–900mg daily (doses above 300mg should be divided)

- Febuxostat *tablets 80mg, 120mg:* 80mg once daily, if after 2-4 weeks serum uric acid greater than 6mg/100mL (>0.3mmol/L), increase to 120mg once daily.

Prescribing Notes

- Allopurinol should be used to prevent recurrent attacks of gout.
- Allopurinol must not be started during an acute attack of gout since it may exacerbate and prolong it.
- Warn the patient that the gout may worsen on starting allopurinol. Ensure that they know who to contact and what to do in the event of an acute flare.
- To prevent an acute attack of gout on introduction of allopurinol, low dose colchicine (500micrograms 1–2 times daily) or NSAID should be prescribed concomitantly for 6–8 weeks.
- Allopurinol must be started at low dose.
- If acute gout occurs while the patient is receiving allopurinol, continue the prophylactic agent and patient already on NSAID or colchicine consider IM kenalog, low dose steroid 7.5 to 15mg for 5-10 days or intra articular injection.
- Allopurinol can be started 2–3 weeks after recovery from the acute attack.
- The dose of allopurinol should be reduced in renal impairment and older patients.
- Contraindications to allopurinol:
    - Previous hypersensitivity
    - Azathioprine (extreme caution metabolism of aza and 6MPU decreased leading to increased risk of toxicity)
- Reduced allopurinol dose but not contraindicated in patients with renal impairment
- Febuxostat is not currently recommended for people with ischaemic heart disease and congestive heart failure but may be used at discretion of a specialist

following full, authorized patient consent contra-indicated in ischaemic heart disease and congestive heart failure. All such patients should be referred to a consultant rheumatologist prior to commencing febuxostat.

- Patients intolerant of allopurinol and with a contraindication to febuxostat should be referred to secondary care where suflinpyrazone, probenecid, benzbromarone or oral desensitization to allopurinol can be considered.

MHRA safety update – Febuxostat
Febuxostat safety alert

The MHRA safety update (June 2012) highlighted reports of serious hypersensitivity reactions (Stevens-Johnson syndrome (S-JS) and acute anaphylactic shock) with Febuxostat. Most cases of hypersensitivity occur during the first month of treatment. Healthcare practitioners are advised to:-

- Stop febuxostat treatment immediately if signs and symptoms of serious hypersensitivity reactions occur and do not re-start at any time
- Advise patients of the signs and symptoms of S-JS or severe hypersensitivity (e.g. infiltrated maculopapular eruption; generalised or exfoliative rashes; skin lesions; facial oedema, fever, haemotologic abnormalities such as thrombocytopenia, a single or multiple organ involvement, progressive skin rashes associated with blisters or mucosal lesions and eye irritation.
- Be aware that a prior hypersensitivity to allopurinol and/or renal disease may indicate indicate potentail hypersensitivity to febuxostat.

Useful Resources for Patients

- Arthritis research council Gout PIL (Downloadable or can order from www.arthritisresearchuk.org.uk)

- See patient information leaflet – appendix 1

Gout – Patient information leaflet

What is Gout?

Gout is a condition affecting the joints which can cause pain, swelling and redness. It can come on very suddenly and can be a condition that comes and goes, sometimes lasting for a few weeks at a time.
It can affect just one joint (doctors call this monoarticular gout), but sometimes a number of joints can be involved (called polyarticular gout).

Common joints affected are:-

- the joint at the bottom of the big toe
- the foot (small joints in the middle of the foot)
- ankle joint
- knee joint
- elbow joint
- finger joints
- wrist joint

What causes gout?

Gout is caused by crystals which are formed from a substance called uric acid. Uric acid (or urate) is formed by the breakdown of certain food types in the body. It is present in everyone's blood but if the levels become too high crystals can form in the joint causing pain and inflammation. Some people with gout also have lumps of urate visible under the skin (called tophi).
Treatments are aimed at reducing the level of urate in the blood so that attacks of gout are less likely to happen (see below).

Why me?

Gout is a common condition. It more commonly affects men than women.
There are some medical conditions that can cause high urate levels such as:

- kidney problems
- high blood pressure
- diabetes (high blood sugar levels)
- psoriasis (a skin condition)
- hyperlipidaemia (high levels of fat and cholesterol in the blood).

Some drugs can cause high urate levels such as:

- Diuretics ("water tablets", that are given to remove water from the body and lower blood pressure)
- Some chemotherapy drugs (for treatment usually of cancer)

Gout is also associated with some factors in your diet and lifestyle:

- Eating a lot of foods which contain high levels of purines (this is a substance that when eaten can lead to high levels of urate) such as beef, pork, bacon, seafood, liver, kidney, oily fish and lamb.
- Drinking alcohol above the recommended levels

What will happen in the future?
Some people will only have one “attack” of gout and may feel fine afterwards with no pain in the joints.
Some people will have repeat attacks, and over time the joints can become damaged from the repeat inflammation in the joint.

How will gout be diagnosed?
Gout can be diagnosed in a number of ways:

- A blood test after the joint has settled down can show high levels of urate
- If there is swelling of the joint, sometimes a needle can be put into the joint to take off some fluid. This can be sent to a hospital and tested for evidence of urate crystals in the fluid
- X-rays of the joints can sometimes show up changes that would suggest gout

Gout can be associated with other conditions such as high blood pressure, diabetes and kidney problems. It is important that your doctor

- Checks your blood pressure
- Checks blood tests for cholesterol and high blood sugar (diabetes)
- Checks your kidney function

How is gout treated?
The initial attack of gout can be treated in a number of ways with medicines such as:

- Anti-inflammatory tablets like ibuprofen or naproxen if they are suitable for you
- Steroids such as prednisolone
- An injection of a steroid preparation into the joint
- An injection of long lasting steroid into the bottom
- A tablet called colchicine

Some people only need this treatment whilst the joint is painful and red and can stop them after everything has settled. Your doctor will advise what the best treatment is for you.
Your doctor may consider treatments to **prevent** future attacks of gout. These work by lowering the levels of urate in the blood. Once the urate falls beneath a certain level the frequency of attacks should reduce or stop altogether. Once started on treatment to prevent gout your doctor will ask you to attend for blood tests every few weeks. The treatment dose will be increased until a satisfactory level of blood urate is achieved. The commonest drug used is **allopurinol** and is a tablet usually taken once a day. The dose of allopurinol will range from 100mg to 900mg daily. If you are started on allopurinol there are a few facts to be aware of:

- Allopurinol can sometimes cause an attack of gout when it is first started. That is why it is usually started after the initial attack has settled down. Usually your doctor will give you one of the above tablets such as anti-inflammatories to be taken until the urate level falls to a satisfactory level. This should help prevent further attacks.
- If your joints become painful, red or swollen after starting allopurinol you should see your GP as soon as possible
- Once you are on allopurinol you should continue to take it even if you get further attacks of gout. DO NOT stop it unless you are told to by your doctor.

- Side effects are rare but include rash, headache and nausea – if you get any of these stop the tablet and seek advice from your doctor immediately.
- Once the urate levels falls to normal you need to continue taking the preventor treatment (normally allopurinol). If the treatment is stopped the urate levels are likely to rise and gout will come back.
- Drugs such as allopurinol can help to dissolve the gouty tophi under the skin, but it can take months to years for this to happen.

There are other tablets available for treatment of gout including medicines like Febuxostat – these tend to be used if allopurinol can't be taken or doesn't work.

What can I do?
There are a number of things you can do yourself that are known to reduce the risk of gout coming back:

- Lose weight – if you are overweight
- Drink less alcohol – aim to keep well within the government recommendations (3-4 units per day for men, 2-3 for women)
- Drink plenty of fluids
- Take your tablets regularly
- Eat less red meat, offal, oily fish and yeast containing foods like marmite and Bovril. Your doctor can give you more information on a healthy diet but in general

Avoid:-

- Beer
- Drinks containg the sugar fructose (eg sugary fizzy drinks)
- Shellfish
- Red meat

Things that help

- Vitamin C
- Cherry juice
- Low fat dairy products (eg semi skimmed milk)

Where can I get more information?
You will be able to get advice from your GP or your rheumatologist if you have one (a specialist doctor who deals with joint problems).
If you have the internet:
www.arthritisresearchuk.org - The arthritis research council have information about Gout which will be supplied to patients free of charge
Arthritis research UK, Copeman House, St Mary's Gate, Chesterfield, Derbyshire S41 7TD
Email enquiries@arthritisresearchUK.org
Tel 0300 790 0400
www.arthritiscare.org.uk – arthritis care is a UK based charity for all types of arthritis and can offer support and advice. Their telephone number is 0808 800 4050

Patient Name:
GP Name:
Number to contact in event of problems:
Rheumatologist Name (if appropriate)
Number to contact in event of problems:

Treatments to reduce inflammation
Please record here any treatments started to reduce inflammation or dates of steroid injections

Date started	Date stopped	Drug/ Route	Dose	Comments

Treatments to reduce urate level

Date started	Date stopped	Drug/ Route	Dose	Comments

Appointments and uric acid level

Please record here dates of any appointments for bloods. Your practice nurse or GP can provide you with a record of your uric acid level. Ideally the level should be less than 0.3 but for some patients a level of 0.35 will be sufficient.

Date	Time	Appointment	Uric acid level

Other information

You may wish to record here any attacks of gout you have experienced since your last review or any problems you have had with side effects.

Dr N J Stanley
GPST3 October 2011

J Hamilton
Consultant rheumatologist