The management of gout

Why is this topic of interest?
Gout is the most common form of inflammatory arthritis. Gout is caused by an inflammatory response to monosodium urate (MSU) crystals, which form in the presence of high urate concentrations. Patients typically present initially with recurrent flares of severe joint inflammation. Over time, in the presence of elevated serum urate concentrations (hyperuricaemia), gouty tophi, chronic arthritis and joint damage can occur. Gout is estimated to affect approximately 3.75 percent of adult New Zealanders.[1] Rates of gout are particularly high in male Māori and Pacific peoples, affecting up to one-third of those over 65 years.[1] Acute attacks of gout are extremely painful, disrupt work and home life, and tophaceous gout causes bone and joint damage and musculoskeletal disability.[2, 3]

What is the practice concerned about?
Identifying people with a recorded diagnosis of gout who have not had a serum uric acid level ordered in the last year.

For patients with a clinical history of gout, a target serum urate concentration of less than 0.36 mmol/L is required to achieve dissolution of MSU crystals, suppression of gout flares and regression of tophi.

Long term urate-lowering therapy is recommended for patients with recurrent gout flares (>1/year), chronic gouty arthritis and joint damage. Allopurinol is the first-choice urate-lowering therapy drug in New Zealand. Best practice guidelines recommend that people with gout who are prescribed allopurinol should have their serum urate level monitored at least every six months.

Long-term urate-lowering therapy is not recommended for people with asymptomatic hyperuricaemia.

References

Recommended reading
- Auckland Regional Clinical Pathway for Acute Gout.
http://www.healthpointpathways.co.nz/gout-acute/
- Auckland Regional Clinical Pathway for Gout Prevention http://www.healthpointpathways.co.nz/gout-prevention/

**PLAN**

**Indicators**
The doctor/ practice reviews serum urate laboratory tests ordered in people with a diagnosis of gout.
- How many of those are receiving allopurinol?
- Compare local laboratory tests ordered and the use of allopurinol against national rates
- Patients in high risk categories are identified and reviewed

**Criteria** (how will the indicator be measured)
Identify people with a recorded diagnosis of gout who have not had a serum uric acid level ordered in the last year.

For patients with a clinical history of gout, a target serum urate concentration of less than 0.36 mmol/L is required for long-term prevention of acute gout attacks and regression of tophi. Recommendations are
- a) Serum urate testing, which should be done when the patient is not experiencing a gout attack
- b) Allopurinol is recommended to reduce the serum urate to \( \leq 0.36 \) mmol/L in patients with more than 1 gout attack per year or tophi.

Note: individual circumstances must be taken into account around the patient’s general condition and current prescribing recommendations and contraindications.

**Standards** (the standards to be achieved)
- Serum urate monitoring is examined in people with gout
- 80% of own patients meeting criteria for serum urate monitoring have prescribing reviewed.

**DO**

**Discover what you are doing now** (collect data)

- A free patient management system (PMS) queries to identify your patients are available to MedTech and MyPractice users. For detail on how to run these queries and which queries are available, choose the ‘find my patients’ button on the gout atlas single map. (Note: these queries can take 5 or 10 minutes to run, it is recommended to run these outside of office hours.)

- In your own PMS, select and run the query to identify your patients with a recorded diagnosis of gout who have not had a serum uric acid level ordered in the past year (if you can’t find this, instructions are available at the end of this document or here: http://www.healthstathqsc.co.nz/?atlas=gout1). This will generate a list of your patients meeting the criteria.
**STUDY**

**Analyze what the results tell you**

- Identify the gap between your results and the national mean – do your patients appear to have more or less serum urate testing than the national average?
- Examine the individual patients on your list. Should any patient plans be reviewed? Allopurinol is recommended to reduce the serum urate to $\leq 0.36$ mmol/L in patients with more than 1 gout attack per year or tophi.

**ACT**

**Make changes – what changes can be made to improve patient care?**

**Write an action plan:**

- Based on your results, review 15 patients meeting the criteria
- Decide who will do the review and by when
- Plan a review date to follow up on changes

**Implement changes**

- Review your action plan to see if you are keeping to timeline for implementing change
- Monitor to see if actions are taking place
- Solve problems as they arise
- Obtain qualitative feedback from staff and patients about the improvement/s
- Consider if you need to develop new strategies to achieve the goals you have set?
- GPs are encouraged to discuss the outcomes of the audit with their peer group or practice.

The practice quality improvement plan can be used to record actions identified for ongoing discussion, to monitor progress, and to provide information for team learning and reflection.

To claim MOPS credits for this activity:

- Complete the attached summary sheet outlining the action plan that you intend to implement based on the audit results. This summary sheet does not need to be sent to the College unless you are under MOPS audit.
- Record completion on the MOPS Online credit summary, under the **Continuous Quality Improvement/Audit of Medical Practice** section. From the drop down menu select the audit from the list or select “**Approved practice/PHO audit**” and record the audit name in "Notes".
**Topic:** The management of gout

**Doctor's name:** ________________________________________________________________

**First cycle**
Sample size: If the query identifies more than 30 patients, it is suggested that those in highest risk groups be targeted, e.g., Maori and Pacific males. If patients experience more than one attack of gout in a year or have tophi, long term urate lowering therapy is recommended. Note: individual circumstances must be taken into account around patients' general condition and current prescribing recommendations and contraindications.

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<th><strong>Data:</strong> Date of data collection</th>
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<td><strong>Check:</strong> Describe any areas targeted for improvement as a result of analysing the data collected.</td>
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| **Action:** Describe how these improvements will be implemented |  |
Monitor: Describe how well the process is working. When will you undertake a second cycle?
## Second cycle

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Running Find My Patients queries in MedTech32.

Instructions on how to run the HQSC Atlas of Healthcare Variation Queries in Medtech32 and identify which patients contribute to the measures. These queries can take 5 or 10 minutes to run. They can slow your system and it is recommended to run them outside business hours.

1. Go to ‘ManageMyHealth’ from the toolbar and select ‘Patient Tools’

2. Click on ‘HQSC Queries’

3. Select the query from the list ‘Choose Patient List’ and click ‘Run/Download’

4. A list of patients will be displayed. Click on “Patientid” to see basic demographics, date last seen and contact phone numbers.

5. You can apply alerts or recalls to these patients. Choose an alert/recall and apply to entire list or apply to individuals by ticking the boxes. Click ‘Update PMS’ to write all alerts or recalls back to the PMS automatically.