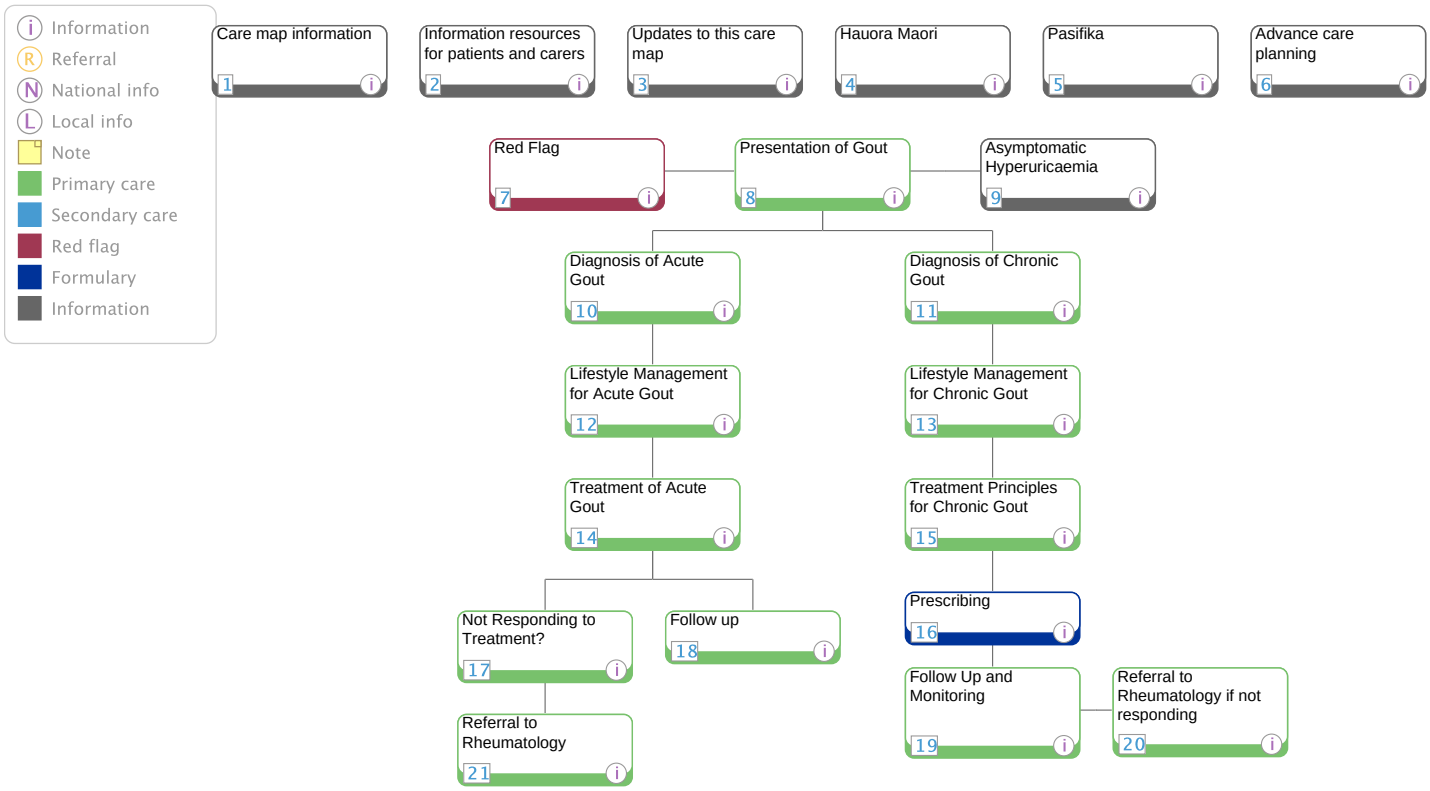
Gout

Medicine > Rheumatology > Gout



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This care map was published by Hawkes Bay District. A printed version of this document is not controlled so may not be up-to-date with the latest clinical information.

Gout

1 Care map information

Quick info:

This Pathway is primarily written for the care of people with gout in Hawke's Bay.

In scope:

- management of gout

Out of scope:

- management of pseudogout and other acute arthritis

For an overview of gout management see the following resources:

- An update on the management of gout
- A conversation about gout
- The medical management of gout revisited

2 Information resources for patients and carers

Quick info:

- Pharmacs "Out With Gout" guide in English, Samoan and Tongan
- Gout resources for health professionals
- Gout prevention resources
- Health Navigator
- Arthritis New Zealand
- Safe use of medicines
- Long term condition self-management programme (Stanford)

Language translation assistance:

HBDHB Interpreting Service. To make an appointment (charges may apply):

- phone 06 878 8109 ext 5805 or
- email interpreting@hawkesbaydhb.govt.nz

These websites may help with simple words and phrases:

- Babelfish
- Google translate

Language Line. Professional interpreters are available, free of charge, for telephone-based sessions (44 languages are supported):

- email language.line@dia.govt.nz
- Phone 0800 656 656
- Monday - Friday 9am - 6pm
- Saturday 9am - 2pm

Bookings are not usually necessary. For longer consultations it is best to make a booking at least 24 hours in advance.

3 Updates to this care map

Quick info:

Date of publication: October 2015
Date of review and republication: November 2016
Date of next planned review: November 2018

This care map has been developed in line with consideration to evidenced based guidelines. For further information on contributors and references please see the Pathway's Provenance Certificate.

4 Hauora Maori

Quick info:

Gout in Maori

Around 1,740 Hawke's bay Maori were estimated to have gout in 2011, a prevalence of 7.4%. This is 89% higher than the prevalence in non-Maori.

There were 29 hospital admissions to HBDHB for gout per year on average among Maori during 2011 to 2013, more frequent among males than females. The rate of admission was 7.2 times as high for Maori as for non-Maori, or 107 more admissions per 100,000[1].

Due to prevalence of gout in Maori, there can be the perception that this is a normal part of life. This can be a barrier to effective engagement.

- Article: Maori experiences and perceptions of gout and its treatment (Journal of Primary Health Care, September 2013)

Maori are a diverse people and whilst there is no single Maori identity, it is vital practitioners offer culturally appropriate care when working with Maori whanau. It is important for practitioners to have a baseline understanding of the issues surrounding Maori health. This knowledge can be actualised by (not in any order of priority):

- considering the importance of introductions ('whanungatanga') - a process that enables the exchange of information to support interaction and meaningful connections between individuals and groups. This means taking a little time to ask where this person is from or to where they have significant connections
- asking Maori people if they would like their whanau or significant others to be involved in assessment and treatment
- asking Maori people about any particular cultural beliefs they or their whanau have that might impact on assessment and treatment of the particular health issues

Maori health services

HBDHB contracts Maori health providers to deliver community based nursing and social support services. A referral to one of these providers may assist Maori people to feel more comfortable about receiving these services.

***Central Hawke's Bay**:*

Central Health
Cnr Herbert & Ruataniwha Streets, Waipukurau
Phone: 06 858 9559 Fax: 06 858 9229
Email: reception@centralhealth.co.nz
Referral Form

***Hastings**:*

Te Taiwhenua o Heretaunga
821 Orchard Road, Hastings 4156
Phone: 06 871 5350 Fax: 06 871 535
Email: taiwhenua.heretaunga@ttoh.iwi.nz
Referral Form

Kahungunu Health Services (Choices)
500 Maraekakaho Road, Hastings
Phone: 06 878 7616
Email: kahungunu@paradise.net.nz
Referral Form

***Napier**:*

Te Kupenga Hauora
5 Sale Street, Napier
Phone: 06 835 1840
Email: info@tkh.org.nz

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Referral Form

***Wairoa**:*
Kahungunu Executive (no website)
65 Queen Street, Wairoa 4108
Phone: 06 838 6835 Fax: 06 838 7290
Email: kahu-exec@xtra.co.nz

Secondary care Maori HealthServices:
Hawke's Bay DHB - Te Wahanga Hauora Maori Health Services
Phone: 06 878 8109 ext. 5779, 06 878 1654 or 0800 333 671 Email: admin.maorihealth@hawkesbaydhb.govt.nz

Further Information
Practitioners should be versed in the knowledge of:

- historical overview of legislation that impacted on Maori well-being
- Maori models of health, such as Te Whare Tapa Wha and Te Wheke when working with Maori whanau
- national Maori Health Strategies:
  - Mai Maori Health Strategy 2014-2019 - Full file or Summary diagram
  - He Korowai Oranga: Maori Health Strategy - sets the Government's overarching framework to achieving the best health outcomes for Maori
- local Hawke's Bay health sector's strategies and initiatives for improving Maori health and wellbeing

Cultural Competency Training
Training is available through the Hawke's Bay DHB to assist you to better understand Maori culture and to better engage with Maori people. Contact the coordinator
Email: education@hbdhb.govt.nz to request details of the next courses.

References:
[1] HBDHB Maori health Profiles 2015 by Te Ropu Rangahau Hauroa a Eru Pomare, University of Otago, Wellington – for Ministry of Health

5 Pasifika

Quick info:

Pacific people value their culture, language, families, education and their health and wellbeing. Many Pacific families have a religious affiliation to a local church group.
The Pacific people are a diverse and dynamic population:

- more than 22 nations represented in New Zealand
- each with their own unique culture, language, history, and health status
- share many similarities which we have shared with you in order to help you work with Pacific people more effectively
- for many families language, cost and access to care are barriers

Pacific ethnic groups in Hawke's Bay include Samoa, Cook Islands, Fiji, Tonga, Niue, Tokelau, Kiribati and Tuvalu. Samoan and Cook Island groups are the largest and make up two thirds of the total Pacific population. There is a growing trend of inter-ethnic relationships and New Zealand born Pacific populations.
Acknowledge The FonaFale Model (Pacific model of health) when working with Pacific people and families.
General guidelines when working with Pacific people and families (information developed by Central PHO, Manawatu):

- Cultural protocols and greetings
- Building relationships with your Pacific people
- Involving family support and religion during assessments and in the hospital
- Home visits

Hawke's Bay-based resources:

- HBDHB interpreting service website **or** phone 06 8788 109 ext.. 5805 (no charge for the hospital; charges may apply for community-based translations) **or** contact coordinator at interpreting@hbdhb.govt.nz
- Pacific Navigation Services Ltd Phone: 027 971 9199
- services to assist Pacific people to access healthcare (SIA)
- Improving the Health of Pacific People in Hawke's Bay - Pacific Health action Plan

Ministry of Health resources:

- Ala Mo'ui Pathways to Pacific Health and wellbeing 2014-2018
- Primary Care for Pacific people: a Pacific and health systems approach
- Health education resources in Pacific languages (links to a web page where you can download resources)

6 Advance care planning

Quick info:

Advance Care Planning:

Advance Care Planning is a voluntary process of discussion and shared planning for future health care. It involves the person who is preparing the plan, and usually involves family/whanau and health care professionals.

Advance Care Plan:

An Advance Care Plan is the outcome of Advance Care Planning. It is formulated by the person and sets out their views about care towards the end of their life. It may also include views about medical care and a wide range of other matters. An Advance Care Plan may include an Advance Directive.

Advance Directive:

An Advance Directive is a statement a person makes about their medical care in the future and becomes effective if a person ceases to be competent to make decisions for themselves. An Advance Directive is legally binding if made in appropriate circumstances.

Competency and Advance Care Planning:

Competent people have the right to make autonomous decisions that as medical professionals we may regard as imprudent, and sometimes such decisions are a reflection of the person's longstanding personality, beliefs or lifestyle. This right is described in the Health and Disability Consumers Rights Acts.

According to ACP - A Guide for the NZ Health Care Workforce - "in the context of ACP, competency relates to an individual's ability to make a decision regarding their own health care (that is, competence at decision-making or decision-capacity). At a minimum, decision making capacity requires the ability to understand and communicate, to reason and deliberate, and the possession of a set of values".

Helpful websites:

- The code of rights
- Advance care planning guide Ministry of Health
- Advance care planning resources

7 Red Flag

Quick info:

It is always important to consider septic arthritis in anyone presenting with a hot, swollen joint. In particular these features warrant concern:

- **fever**
- significant loss of joint movement
- gradual onset

These patients should be discussed with the on-call orthopaedic registrar via Hawkes Bay Regional Hospital switchboard on 06 878 8109.

8 Presentation of Gout

Quick info:

Gout is a common and treatable inflammatory joint disease.

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Prevalence of 3% in New Zealand - highest in the world.
In specific groups, e.g. Maori men > 60 years, prevalence is approximately 30%.
Gout attacks can be precipitated by trauma or certain foods, or can happen spontaneously.

Symptoms of acute gout are:

- excruciating joint pain associated with swelling, erythema and exquisite tenderness
- any joint can be involved, including spine
- most commonly affected joint 1st metatarsophalangeal (MTP) - (in up to 78% of gout sufferers)
- rapid onset of symptoms (taking less than 24 hours to reach peak intensity)
- symptoms resolve over period of 1-3 weeks in the absence of treatment

For further reading:

- An update on the management of gout
- A conversation about gout
- The medical management of gout revisited

9 Asymptomatic Hyperuricaemia

Quick info:
Defined as serum urate >0.42 with no symptoms or clinical signs.
Most individuals will not develop gout.
Long-term follow-up suggests about 10% of patients will develop gout [2].
The higher the urate level, the greater the risk of developing gout.
Currently there is no evidence to support treating asymptomatic hyperuricaemia [3,4].

Asymptomatic hyperuricaemia can be a marker of elevated cardiovascular (CVD) risk, and patients should be screened appropriately.

Urate levels can also be elevated due to:

- psoriasis
- myeloproliferative disorders
- inborn errors of metabolism

References:

[2] BPAC (2007) Treatment of gout: Hit the target. Best Practice Journal 8 (September): 9-18. http://www.bpac.org.nz/BPJ/2007/September/docs/bpj8_gout_pages_9-18.pdf
[3] Feig D, Madero M, Jalal D, et al. (2013) Uric acid and the origins of hypertension. J. Pediatr. 162: 896-902.
[4] Suresh E, Das P (2012) Recent advances in management of gout. Q. J. Med. 105: 407–17.

10 Diagnosis of Acute Gout

Quick info:
The gold standard for diagnosis is the identification of uric acid crystals in synovial fluid.
However, in regular general practice, clinical judgement is usually adequate.
There are no standard diagnostic criteria, but the American College of Rheumatology criteria can be useful in diagnosis

Testing uric acid during an attack may be useful. While not diagnostic [5], a high uric acid can help to confirm diagnosis.
A normal uric acid does not exclude gout and warrants repeat testing upon resolution of symptoms as urate may be falsely low during an attack [6].

References:

[5] BPAC (2011) The medical management of gout revisited. Best Practice Journal 37 (August): 34-40. http://www.bpac.org.nz/BPJ/2011/august/docs/bpj_37_gout_management_pages_34-40.pdf
[6] Leiszler M, Ahlin S, Fletcher A (2011) Clinical inquiry. Are serum uric acid levels always elevated in acute gout? J. Fam. Pract. 60 (10): 618–20.

11 Diagnosis of Chronic Gout

Quick info:

Any patient with two or more attacks of gout in a year should start urate lowering therapy.

Urate lowering therapy should be considered after one attack of gour in people with:

- chronic kidney disease
- presence of tophi
- uric acid kidney stones
- high risk groups after one attack, e.g. Maori, Pacific Island
- erosions on x-ray

These people are very likely to have high cardiovascular risk and should be screened appropriately.

12 Lifestyle Management for Acute Gout

Quick info:

1. Patient Education:

- greater understanding of gout (increased knowledge leads to improved management)
- not just a lifestyle disease (reduces blame)
- 60% due to genetics (reduces guilt)
- strong association between gout and insulin resistance (prevention)

2. Weight Loss:

For preventative effects on insulin resistance, hyperlipidaemia, atherosclerosis, hypertension and alcoholic liver disease:

- being overweight increases risk of developing gout
- losing weight lowers risk
- losing weight lessens stress on joints

3. Dietary Interventions:

For many people, attacks of gout could be reduced by avoiding:

- dehydration
- heavy consumption of alcohol, particularly beer
- excess intake of food rich in purine:
  - red meat and offal (liver, kidney and sweetbreads)
  - seafood and shellfish
  - yeast extracts e.g. marmite
- soft drinks containing sucrose and fructose (these interfere with tubular excretion of urate).

4. Exercise:

- reduces the risk of developing many of the co-morbidities associated with gout, such as cardiovascular disease (CVD)
- exercise moderately, but during an acute attack rest, elevate and cool affected joints
- avoid prolonged anaerobic muscular activity as this promotes renal urate re-absorption

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14 Treatment of Acute Gout

Quick info:

The aim of treatment is to relieve pain and inflammation.

Delaying treatment prolongs duration and severity of attacks. Start treatment at the onset of symptoms. Consider providing a home supply of medication for patients with previous gout.

Generally, 5-7 days of treatment is sufficient.

Further gout attacks are likely to occur (62% within 12 months in one study [7,8]).

If on urate lowering therapy, this should be continued through the attack [5].

Option one: NSAID, e.g. diclofenac (50mg tds), ibuprofen (400-600mg, 3-4 times/day), naproxen (500mg, bd). In general, short-acting preparations are advised for quicker onset. For those intolerant of NSAIDs, consider Cox 2 inhibitors, e.g. meloxicam (7.5-15mg od) or celecoxib (200mg od).

Option two: Prednisone (40mg od).

Option three: Colchicine (500mcg) two tablets stat, then one an hour later, followed by one bd from the next day until symptoms resolve. Maximum 12 tablets over four days.

Option four: intra-articular corticosteroids (e.g. triamcinolone 20-40mg).

General considerations:

- consider gastro-protection
- avoid combination of NSAIDs, ACE inhibitor and diuretics due to risk of acute kidney injury (Triple Whammy)
- be mindful of cardiac risk with NSAIDs and in particular Cox 2 inhibitors

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- resting and ice on the affected joint may help symptoms
- use opportunity to educate and engage patient
- advise patients to keep colchicine out of the reach of children due to risk of fatal overdose

References:

[5] BPAC (2011) The medical management of gout revisited. Best Practice Journal 37 (August): 34-40. http://www.bpac.org.nz/BPJ/2011/august/docs/bpj_37_gout_management_pages_34-40.pdf
[7] http://misc.medscape.com/pi/iphone/medscapeapp/html/A329958-business.html
[8] http://www.nhs.uk/Conditions/Gout/Pages/Symptoms.aspx

15 Treatment Principles for Chronic Gout

Quick info:

If left untreated, gout is a destructive arthritis which can lead to disability with associated reduced quality of life and impact on work and mobility. It also leads to increased use of health services.

Aims of treatment are:

- symptom control
- avoidance of further attacks
- prevention of tophi
- resolution of existing tophi
- prevention of joint damage
- prevention of uric acid kidney stones

This is achieved by maintaining serum urate below 0.36 over a prolonged period. If tophi are present, a lower target of less than 0.24 will allow gradual dissipation over a number of years.

After starting treatment, gout attacks may still occur for up to 12 months even if urate is below target.

Urate lowering therapy should be started two weeks after an attack to prevent aggravation. In a small number of patients with frequent attacks, this may not be possible, so urate lowering therapy may need to be started during an attack.

Thiazide and loop diuretics should be avoided where possible due to an increase in urate levels.

As with any form of arthritis, interventions from allied health professionals can be beneficial to maintain function and quality of life.

16 Prescribing

Quick info:

Starting urate lowering therapy may precipitate an attack of gout.

It is recommended to co-prescribe one of the following for 3-6 months:

- Colchicine 500mcg bd (od in renal impairment)
- low dose NSAIDs (e.g. Naproxen 500mg od or Diclofenac SR 75mg od)
- Prednisone 10mg od (may need tapering dose at 3 months)

Gastroprotection cover may be required.

Co-prescribing should continue until patient is attack free for three months.

Allopurinol:

- starting dose allopurinol based on 1.5mg allopurinol per unit eGFR - An update on the management of gout
- consider delaying the start of allopurinol as it may prolong an attack
- increase every 2-4 weeks until uric acid level <0.36mmol/L (up to 900mg od)
- main side effect – rash usually seen in the first 2 months of treatment
- seek specialist advice for patients on Azathioprine or 6-Mercaptopurine due to high risk of fatal toxicity

Probenecid:

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- use if allopurinol not tolerated, provided good renal function
- ineffective if eGFR < 30ml/min. Optimal efficacy with eGFR > 50ml/min
- needs high fluid intake to minimise risk of renal stones
- start at 250mg bd increasing weekly up to a maximum dose of 1gm bd thereafter
- contra-indicated in renal stones
- can be used with allopurinol if monotherapy doesn't lower urate to target

Benzbromarone:

- use if allopurinol and probenecid are contra-indicated or don't lower urate to target
- inhibits metabolism of warfarin, interaction with sulphonylureas/phenytoin
- ensure adequate fluid intake
- hepatotoxic - monitor liver function tests weekly/fortnightly for first six months and three-monthly thereafter
- avoid if eGFR <20ml/min
- starting dose is 50mg once daily increasing by 50mg per week to a maximum of 200mg once daily
- special authority application is required (this medication is not Medsafe registered, section 29 required) **SA form**

Febuxostat:

- alternative to allopurinol
- starting dose 80mg od. If target urate not reached in 2-4 weeks increase to 120mg od
- hepatotoxicity – liver function tests prior to starting treatment and at 1 and 3 months
- avoid in patients with history of cardiac disease
- dosage adjustment not required in mild to moderate renal impairment
- funded with special authority

Thiazide and loop diuretics should be avoided where possible due to an increase in urate levels (loop diuretics still recommended in cardiac failure).

17 Not Responding to Treatment?

Quick info:

If patient is not responding to 7 days of first course of treatment, then consider:

- ***option one***: combined NSAIDs and colchicine, or prednisone and colchicine
- ***option two:*** higher doses of prednisone (up to 60mg/day with a tapering course)
- ***option three:*** intra-articular steroid injection and NSAIDs

Consider contacting rheumatology for further advice if these options are ineffective by phone (urgent), email (24-72 hours) or referral.

- contact: 06 8788109
- email: RheumatologyDepartment@hbdhb.govt.nz

18 Follow up

Quick info:

Further gout attacks are likely to occur (62% within 12 months in one study [7,8]).

Refer to *Diagnosis of Chronic Gout* node if:

- two or more attacks in past year
- gouty tophi, or
- chronic kidney disease
- Maori, Pacific

References:

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[7] http://misc.medscape.com/pi/iphone/medscapeapp/html/A329958-business.html
[8] http://www.nhs.uk/Conditions/Gout/Pages/Symptoms.aspx

19 Follow Up and Monitoring

Quick info:

Urate should be checked monthly until target of < 0.36 mmol/l is reached.

Thereafter an annual check with urate and renal function is recommended.

If target urate is not reached, this is most often due to poor adherence to the treatment regimen. Where adherence is not a concern, consider referral to rheumatologist.

20 Referral to Rheumatology if not responding

Quick info:

Refer through usual practice referral system to specialist rheumatology services. Use e-referral where available.

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Gout Provenance Certificate

Overview

This document describes the provenance of Hawke's Bay's District Health Board's Gout Pathway. It was developed in April-May 2015 and first published in October 2015. A review of this pathway was completed by the clinical leads in November 2016. A further review of the Pathway is due in November 2018.

The Collaborative Clinical Pathways programme is one initiative stemming from the *Transform and Sustain* agenda. The main aims of CCP are to:

- → Identify opportunities to improve how health and disability care is planned and delivered within the district to improve patient access to a wider range of health services that are both closer to home and reduce avoidable hospital admissions.
- → Provide health professionals throughout the Hawke's Bay district with best practice, evidence-based clinical pathways that are available at the point of care.

Outcomes we expect to achieve include faster access to definitive care, improved health equity and outcomes, better value from publically-funded resources, and better patient experience through clear expectations, improved access and greater health literacy. These outcomes are clearly aligned to the NZ healthcare *Triple Aim* and *Better, Sooner, More Convenient* policy directions.

Editorial methodology

This Pathway was based on high-quality information and known Best Practice guidelines from New Zealand and around the world including Map of Medicine editorial methodology. It was developed by individuals with front-line clinical experience (see Contributors section of this document) and has undergone consultation to gain feedback and input from the wider clinical community.

Map of Medicine Pathways are constantly updated in response to new evidence. Continuous evidence searching means that Pathways can be updated rapidly in response to any change in the information landscape. Indexed and grey literature is monitored for new evidence, and feedback is collected from users year-round. The information is triaged so that important changes to the information landscape are incorporated into the Pathways through the quarterly publication cycle.

An update to this Pathway is scheduled for 12 months after first publication. However, feedback is welcomed at any time, with important updates added at the earliest opportunity within the Map of Medicine publishing schedule (the third Friday of each month).

References

This Pathway has been developed according to the Map of Medicine editorial methodology. Its content is based on high-quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience. Feedback on this Pathway was received from stakeholders during a consultation process.

1	HBDHB Maori health Profiles 2015 by Te Ropu Rangahau Hauroa a Eru Pomare, University of Otago, Wellington – for Ministry of Health
2	BPAC (2007) Treatment of gout: Hit the target. Best Practice Journal 8 (September): 9-18. http://www.bpac.org.nz/BPJ/2007/September/docs/bpj8_gout_pages_9-18.pdf
3	Feig D, Madero M, Jalal D, et al. (2013) Uric acid and the origins of hypertension. J. Pediatr. 162: 896-902.
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5	BPAC (2011) The medical management of gout revisited. Best Practice Journal 37 (August): 34-40. http://www.bpac.org.nz/BPJ/2011/august/docs/bpj_37_gout_management_pages_34-40.pdf
6	Leiszler M, Ahlin S, Fletcher A (2011) Clinical inquiry. Are serum uric acid levels always elevated in acute gout? J. Fam. Pract. 60 (10): 618–20.
7	http://misc.medscape.com/pi/iphone/medscapeapp/html/A329958-business.html
8	http://www.nhs.uk/Conditions/Gout/Pages/Symptoms.aspx

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- David Rodgers – Facilitator
- Louise Pattison – Map of Medicine Editor

Disclaimers

Clinical Pathways Steering Group, Hawke's Bay DHB and Health Hawke's Bay – Te Oranga Hawke's Bay

It is not the function of the Clinical Pathways Steering Group, Hawke's Bay DHB and Health Hawke's Bay – Te Oranga Hawke's Bay to substitute for the role of the clinician, but to support the clinician in enabling access to know-how and knowledge. Users of the Map of Medicine are therefore urged to use their own professional judgement to ensure that the patient receives the best possible care. Whilst reasonable efforts have been made to ensure the accuracy of the information on this online clinical knowledge resource, we cannot guarantee its correctness and completeness. The information on the Map of Medicine is subject to change and we cannot guarantee that it is up-to-date.