Dr John Petrie

Rheumatologist

Lakes Care Medical Centre, Rotorua

Professor Lisa Stamp

Rheumatologist

University of Otago, Christchurch

Dr Bryan Betty

General Practitioner

Porirua Union and Community Health Service, East Porirua

Dr Peter Chapman-Smith

Phlebologist

NZ Stem Cell Treatment Centre, Whangarei

FULLY BOOKED

Friday, August 12, 2016

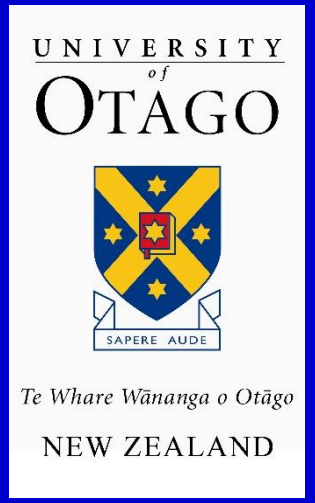
16:30 - 18:30 WS #53: Rheumatology Forum: Gout; Biologics; Stem Cells; Early Intervention in RA (120mins not repeated)

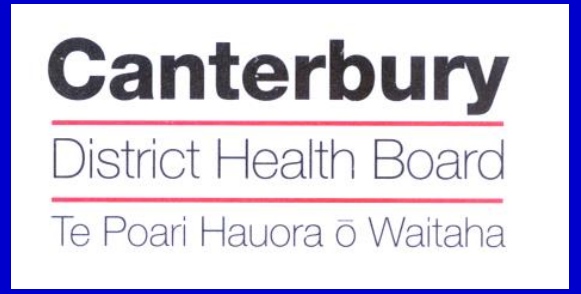
(Room 2)

Gout

Professor Lisa Stamp

University of Otago, Christchurch





Overview

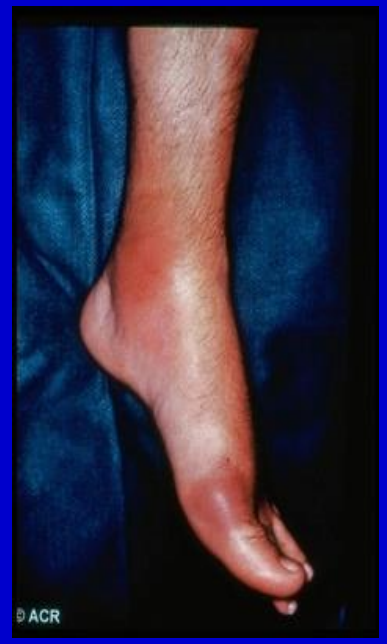
- Diagnosis
- Acute gout management
- Urate lowering therapy – why, when and how including prophylaxis
- Co-morbidity screening
- Patient education
- Treatments patients ask about

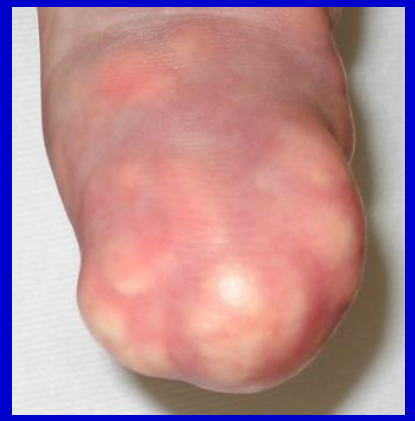
Gout in primary care

- Vast majority of gout managed in primary care
  - Secondary/tertiary care gout may be different
- Principles of management the same
  - Co-morbidities and concomitant medications bring challenges
  - Only “curable” arthritis
- Important not to be minimised – natural history of gout poor – irreversible joint damage
- Like any chronic disease is hard work both for patient and health care providers
  - Much gout management can be nurse led

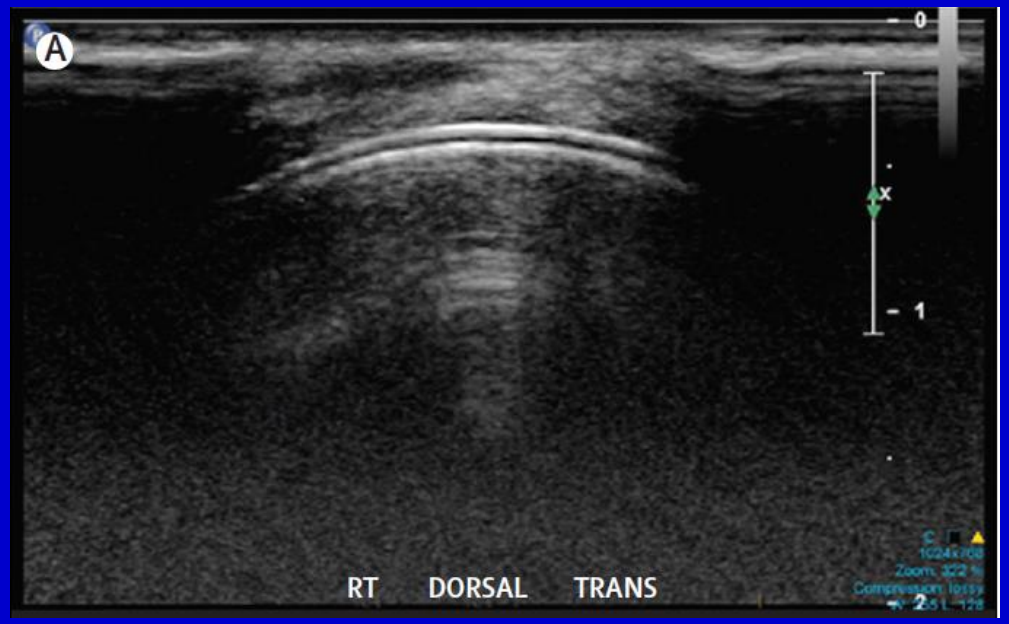
Diagnosis

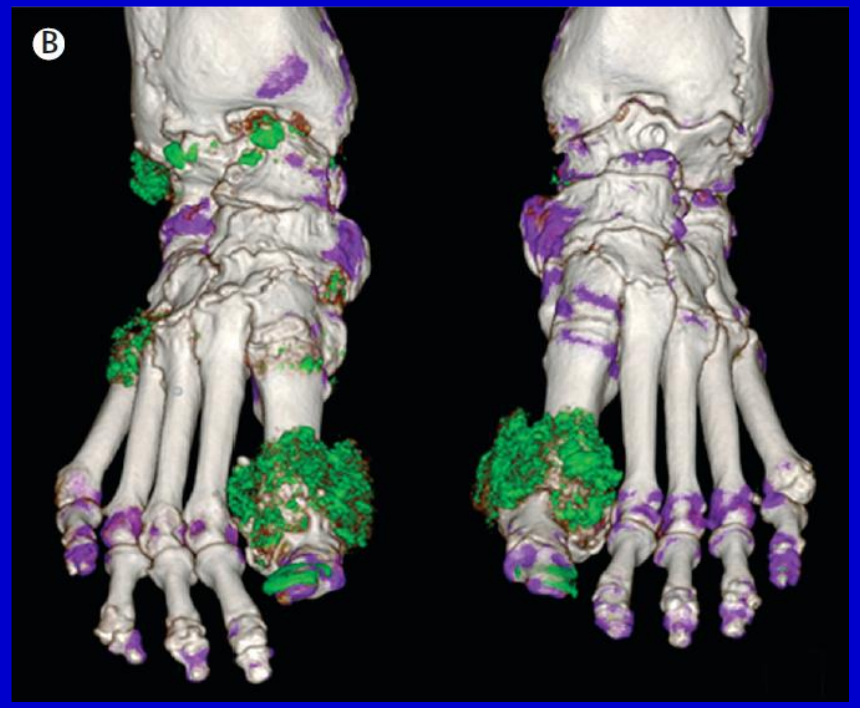
- Red hot swollen joint
  - Acute onset (<24 hours to maximum pain)
  - Foot esp 1st MTP
- Serum urate can be low during acute attack
- Joint aspiration
  - Important to exclude infection
  - gold standard





Diagnosis





Dalbeth, Merriman and Stamp Lancet 2016

Acute gout management

- Early treatment important
- NSAIDs, colchicine , corticosteroids - choice dictated by co-morbidities
- Colchicine
  - low dose 1.0mg stat then 0.5mg 1 hour later then after 12 hours start 0.5mg bd until attack resolves
  - Even lower dose in patients with kidney impairment and those on cytochrome P4503A4 inhibitors (e.g. diltiazem, verapamil, clarithromycin) or p-glycoprotein inhibitors (e.g. cyclosporine)

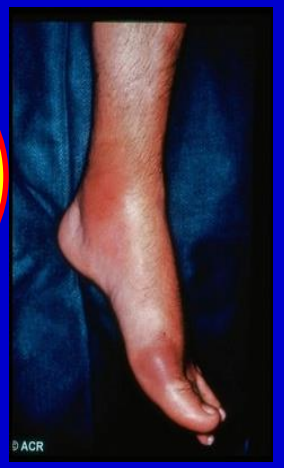
Acute gout management

- Failure of response to therapy as expected the MUST aspirate
- Gout and septic arthritis can look clinically identical and can co-exist

Urate lowering therapy – why

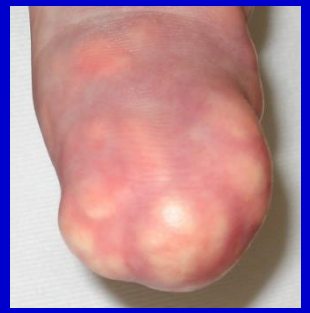
Serum urate 0.36mmol/l (<0.3mmol/l if tophi)

↓ number gout attacks



↓ crystal stores in joint fluid

↓tophus size



? Improves renal function

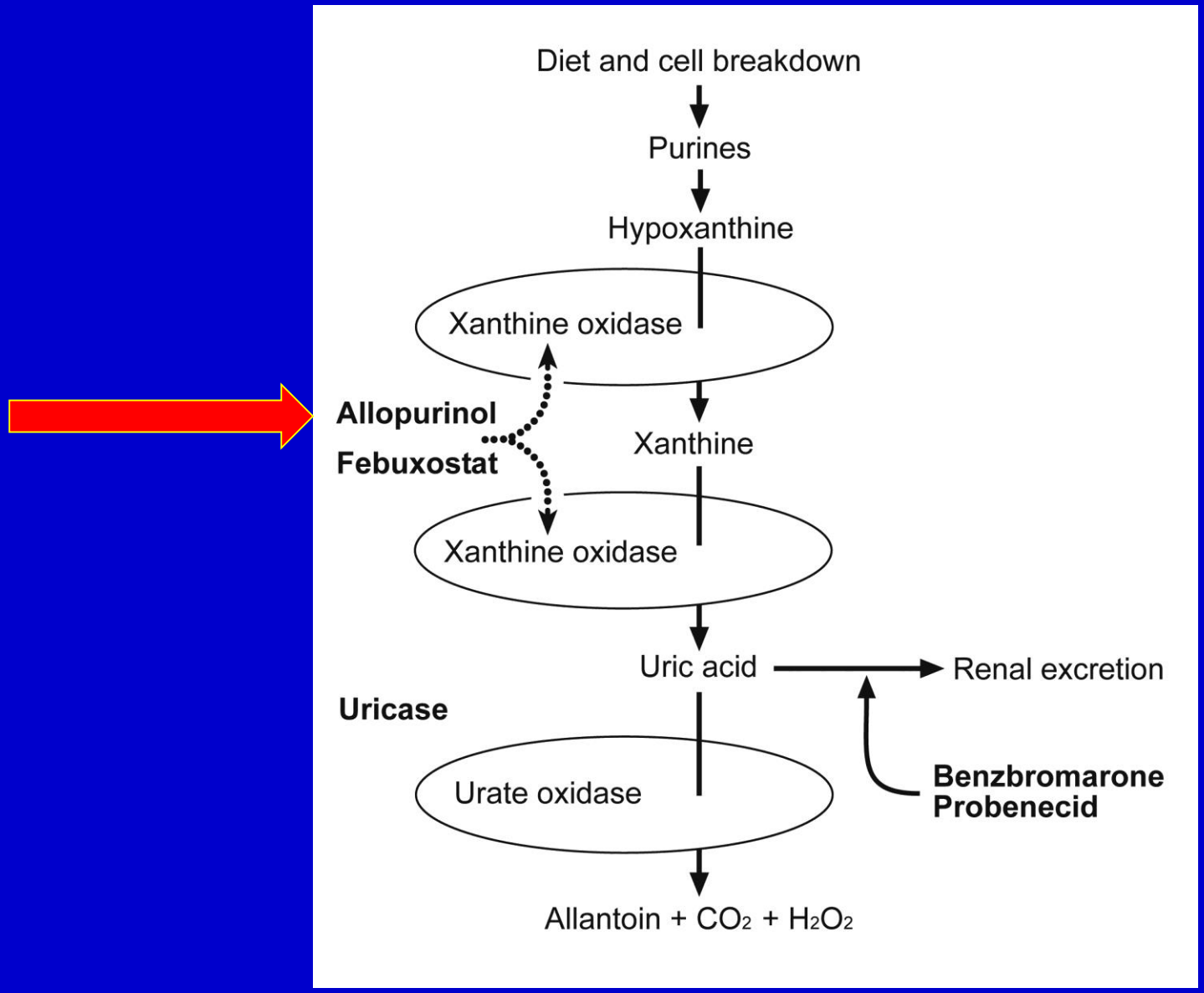
Urate lowering therapy – when

- Established diagnosis of gout and
  - tophi (detected by physical examination or imaging) OR
  - frequent acute gout flares (>1 per year) OR
  - stage 2 chronic kidney disease or worse OR
  - past urolithiasis

Urate lowering therapy – how recommendations

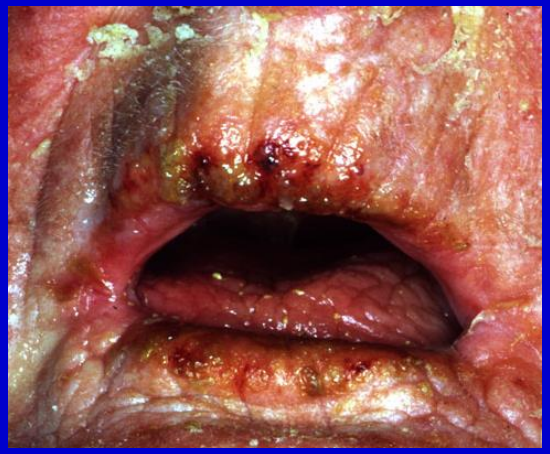
Indications for ULT	Established diagnosis of gout and tophi or flares (>1/year)or ≥ stage 2 CKD or past urolithiasis
Set target urate	<0.36mmol/l for all; <0.30mmol/l if tophi or erosions
Start ULT	During or after acute attack Prophylaxis
Monitor serum urate	Initially frequently i.e. monthly until target reached
Adjust ULT until target achieved	Dose and or drug
Ensure continuous supply of ULT	Adherence key to successful management
Monitor serum urate	To ensure maintain target e.g. 6 monthly

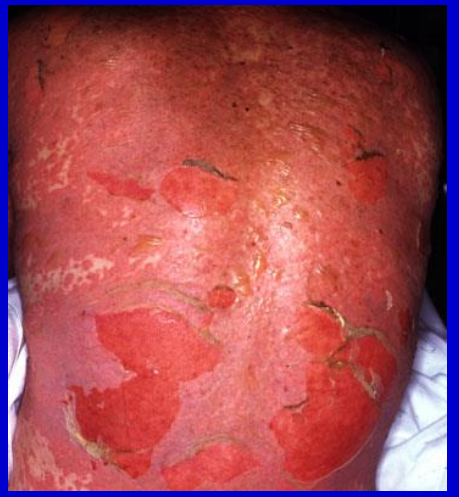
Urate lowering drugs



Allopurinol

Risk Factors for allopurinol hypersensitivity syndrome	
Recent onset allopurinol therapy	6-8 weeks
Renal impairment	Hande CrCL based dosing
Diuretic therapy	
HLA-B*5801	Especially in Asian
Allopurinol dose	Starting ***NOT*** maintenance dose





What I do in real life starting allopurinol

- HLA-B*5801 in Asians pre allopurinol
  - via NZ Blood service
  - If present avoid allopurinol
- After or during depending on clinical situation - severity, prophylaxis available
- Allopurinol starting dose
  - CrCL <20ml/min – 50mg alternate days
  - CrCL <60ml/min – 50mg/d
  - CrCL >60ml/min 100mg/d
- Increase monthly until at target urate
- Monitor –creatinine, LFTs and FBC

Prophylaxis starting ULT

- Gout flares are common after starting ULT and contribute to poor adherence
- Anti-inflammatory prophylaxis is recommended for at least 6 months from initiation of ULT
- Some patients with high SU might need prophylaxis for longer – consider risks and benefits for the individual patient

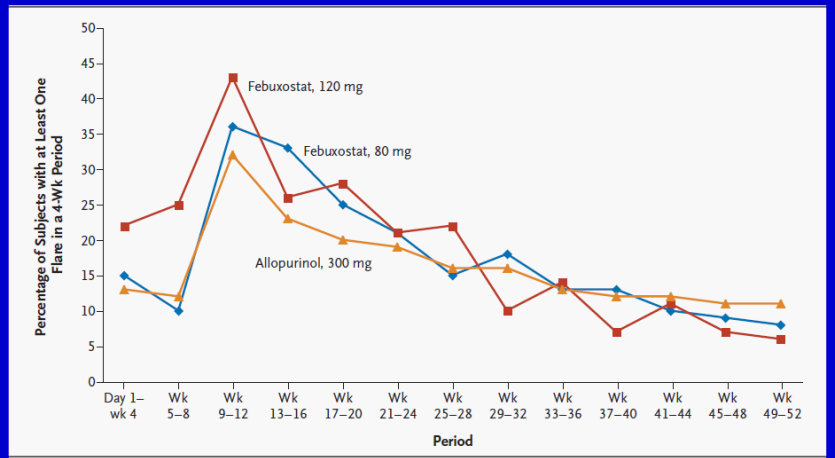


Figure 2. Subjects Requiring Treatment for Gout Flares.

The percentage of subjects in each interval is calculated by dividing the number of subjects with at least one gout flare in that interval by the number of subjects exposed to at least one dose of drug in that interval. Subjects may be counted in more than one interval. The subjects received prophylaxis during the period from day 1 to week 8. The results for the 80-mg febuxostat group are shown in blue, those for the 120-mg febuxostat group in pink, and those for the allopurinol group in yellow.

Becker et al NEJM 2005

Achieving target urate with allopurinol

- If tolerate allopurinol increasing evidence that dose escalation is safe and effective

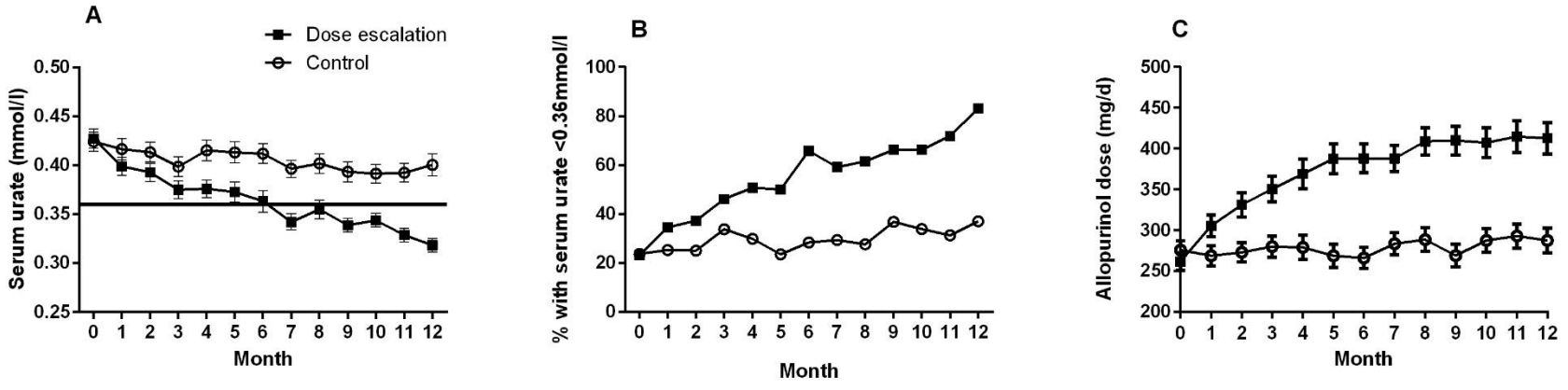
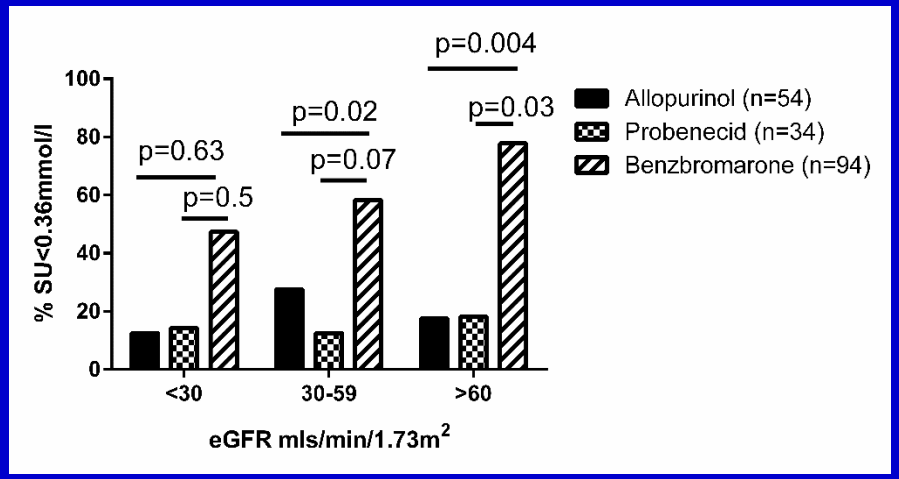


Figure: A) Mean serum urate, B) percentage at target serum urate, and (C) mean allopurinol dose.

Other urate lowering therapies

Drug	Key practice points
Probenecid	Often ineffective if CrCL<30 Risk kidney stones – high fluid intake, alkalinise urine
Febuxostat	Effective but often frequent flares when starting therapy Caution with heart failure and ischaemic heart disease Monitor liver function Some cross reactivity with allopurinol wrt rash
Benzbromarone	Effective even if poor kidney function Associated hepatotoxicity (esp doses >100mg/d) - avoid in pre-existing liver disease and monitor liver function



Stamp IMJ in press

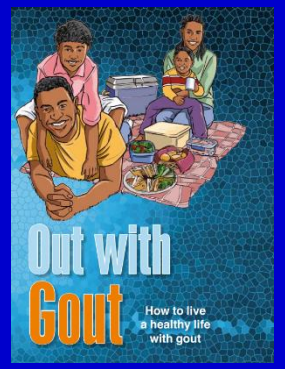
Co-morbidity screening

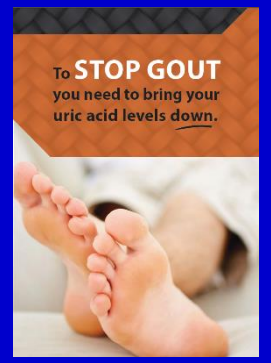
Comorbidity	Patients with gout screened in five year period until 31/12/2012
BMI	55 (45.8%)
Diabetes (HbA1C)	65 (54.2%)
Hypertension	105 (87.5%)
Hyperlipidemia	96 (80%)
Renal impairment (Creatinine)	110 (92%)
Smoking	85 (71%)

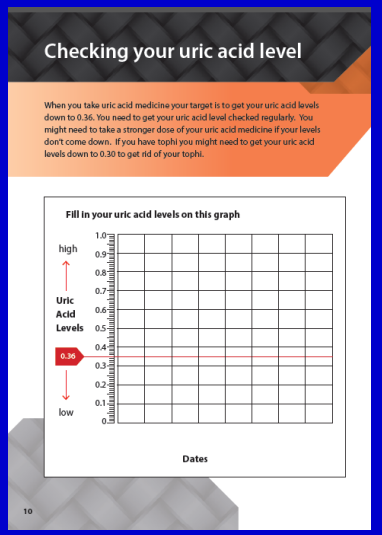
Te Tai O Marokura
Health and Social Services

Patient education

- Patient education very important
  - the rationale for long-term urate-lowering therapy
  - risk of flares during initiation of urate-lowering therapy and be provided with an action plan for flare management
  - target urate and time to flare cessation
  - healthy lifestyle advice





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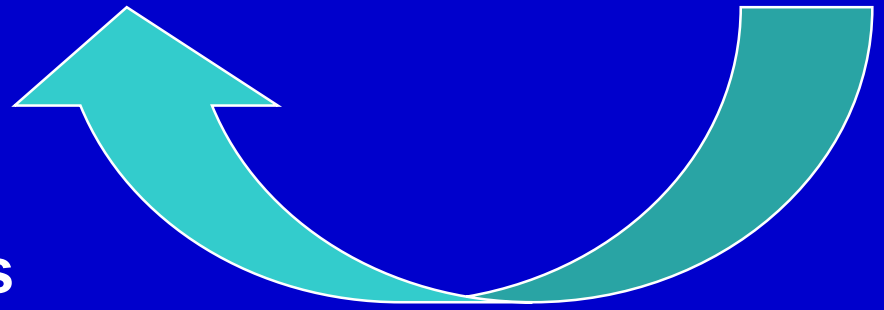
TURMERIC

Control flares

Reduce urate load



NSAIDs
Colchicine
Steroids
IL-1 inhibitors

Allopurinol
Febuxostat
Probenecid
Benzbromarone

Nutraceuticals??

Omega-3
Tart cherry
Curcumin/turmeric

Tart cherry
Vitamin C
Curcumin/turmeric

Take home messages

- Aspirate joint if diagnostic uncertainty or not responding to acute gout treatment
- Set target urate - <0.36mmol/l or <0.30mmol/l if tophi
- Titrate urate lowering therapy to achieve and maintain target urate
- Acute flare self management plan
- Patient education – expectations and time frames for flare reduction
- Screen for co-morbidities

Canterbury
Rheumatology &
Immunology
Research Group

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UNIVERSITY of OTAGO

SAPERE AUDE

Te Whare Wānanga o Otāgo

NEW ZEALAND