GP Bulletin

Sengkang General Hospital SingHealth

A newsletter for GPs by Sengkang General Hospital | Issue 16 | Aug 2024

Welcome!

This issue focuses on gout and osteoarthritis. If you missed our GP webinar on Gout and Osteoarthritis held in May 2024, watch it here. Thank you!

❖ SKH CME Webinar | Empowering Joint Health: Strengthening Care for Gout and Osteoarthritis

At our SKH CME Webinar held on 23 May 2024, we focused on managing gout and osteoarthritis. The webinar was led by a panel comprising a rheumatologist and orthopaedic surgeon from SKH, as well as a primary care family physician.

Missed the webinar or need a refresher? Watch it by clicking this link *(Internet access required)*.

In addition, below are the responses to the queries raised at the webinar:

Webinar Q&As: Strengthening the Care for Gout & Osteoarthritis

Answers by:

Dr Ethan Lim Yii Hong
General Practitioner
Fullerton Health
SingHealth Regional PCN

1. In milder osteoarthritis knee, are steroid injections not as recommended compared to Monovisc/Synvisc injections?

Steroid injections may be of use in an acutely inflamed joint, with significant effusion that requires drainage. HA injections, such as Monovisc/Synvisc and others, are generally used in a chronically painful joint with no gross or overt signs of acute inflammation. Other considerations include: functional disability/ability, concomitant intra-articular injuries, age of patient, acute symptoms, rehabilitation potential versus plan for surgery, and other co-morbids /medications etc.

2. Is glucosamine effective in treating osteoarthritis (OA)?

Glucosamine and other joint supplements (chondroitin, hyaluronic acid, etc), whether oral, injectable or gel, may be useful as a short-acting adjunct for pain relief and inflammation but on its own is unlikely to modify mechanical stress, load distribution, and any weakness or instability of the joint. There is no evidence that it improves long-term outcomes in a joint with OA or prevents onset. There are also small studies to highlight that the pain scores and functional scores are not necessarily better with the use of such joint supplements.

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3. Any physiotherapy studies to show that exercise prevents or improves osteoarthritis as MOH and HPB seem to allude that it is caused by physical activities?

Exercise is strongly recommended in all major guidelines on osteoarthritis. Most recommendations centre around strength-based, functional and multi-directional movement forms of exercise rather than uni-directional or single modality. There are persistent associations of running and weight-bearing exercise with osteoarthritis that has proven controversial for decades but the association is there, and hence attribution still persists. However, most long-term studies do not show a consistent effect of running volume and the risk of osteoarthritis, rather the presence of previous injuries and higher BMI were consistently high-risk factors and predictors of knee osteoarthritis in many studies. This suggests a predisposing mechanical insult or altered joint mechanics is more important in the development of osteoarthritis.

An important corollary to note is the total volume and time in exercise IS associated with the risk of musculoskeletal injuries and hence a predictor of joint arthritis but in the absence of injury, current evidence does not point to an increased risk of osteoarthritis with running. This likely applies to most sports and exercise itself. If done properly, exercise is likely to be more beneficial for osteoarthritis than a cause of osteoarthritis. Hence, it is good practice to ensure that the gait, posture, mechanics and strength of patients who have had musculoskeletal injuries are in balance before prescribing an exercise routine.

Refer to suggested reading resources (attached as a MS Word document with this eBulletin)

Webinar Q&As: Strengthening the Care for Gout & Osteoarthritis

Answers by:

Dr Chuah Tyng Yu
Consultant
Dept of General Medicine
(Rheumatology), SKH

4. Is it possible to have a gout attack on the ankle?

Yes, it is possible to involve any joints.

5. Patients think of NSAIDs as just painkillers (symptomatic). How do we correct that perception?

These patient information resources (links as provided below) might help you in explaining to the patient:

- Non-Steroidal Anti-inflammatory Drugs (Oral) Medication Information Leaflet
https://www.healthhub.sg/a-z/medications/non-steroidal-anti-inflammatory-drugs-oral

- NSAIDs (nonsteroidal anti-inflammatory drugs)
https://rheumatology.org/patients/nsaids-nonsteroidal-anti-inflammatory-drugs

- Facts about nonsteroidal anti-inflammatory drugs (NSAIDs) like aspirin, ibuprofen, and naproxen such as usages, safety tips, and possible side effects : rheumatology.org

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Answers by:

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Dept of General Medicine
(Rheumatology), SKH

6. Patients with gout usually have hypertension, diabetes, chronic kidney disease, and are overweight. Is there a relation to metabolic syndrome and should we be looking out for this? Will this affect our management?

The frequency and burden of gout have risen worldwide for decades and we see excess cardiometabolic-renal (CMR) comorbidities and sequelae in patients with gout, although Mendelian randomisation studies do not support a causal role of hyperuricaemia and gout in most of these comorbidities. Screening of the above is strongly recommended.

The downstream effects of weight loss and lifestyle modification, including adherence to healthy cardiometabolic diets, should simultaneously reduce CMR risk and serum urate concentrations and the risk of incident gout. Pharmacotherapy, diet and lifestyle recommendations for gout prevention and management can be guided by concurrent CMR comorbidities and shared decision-making that reflect patient preferences.

Reference: Bajpai R, Muller S, Mallen C, Watson L, Richette P, Hider SL, Roddy E. Onset of comorbidities and flare patterns within pre-existing morbidity clusters in people with gout: 5-year primary care cohort study. Rheumatology (Oxford). 2021 Dec 24;61(1):407-412

7. Can we switch patient on probencid to allopurinol? How to go about switching?

Yes. In fact, Allopurinol is usually the first line ULT. There is no need to have an overlap period in switching.

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Consultant
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8. Where are the unusual sites of gout? You have mentioned "hidden gout". Kindly elaborate?

Gout can affect nearly every organ, including the spine, skin, nose, ear, valves, as well as, other parts of the body. Atypical manifestations of gout occur more frequently in women and elderly individuals.

References:
1. Ayoub S, Rajamohan AG, Acharya J, Gross J, Patel V. Chronic tophaceous gout causing lumbar spinal stenosis. Radiol Case Rep. 2020;16(2):237-240. doi:10.1016/j.radcr.2020.11.017
2. Negbenebor NA, Hess AA, DiMarco C, et al. Gouty panniculitis: a case series. JAAD Case Rep. 2021;17:103-106. doi:10.1016/j.jdcr.2021.09.033
3. Illiev G, Ivanova PP, Nedev P, Popov H. Rare manifestation of gout: gouty tophi in the nose. Ann Plast Surg. 2019;82(6):642-645. doi:10.1097/SAP.0000000000001778
4. Montelongo-Rodríguez FA, Madero-Morales PA, Martínez-Fernández AM, Rodríguez-Abarca MA, Molina-Ayala M, Gutiérrez-González A. Gouty tophus in the scrotum: an unusual extra-articular manifestation of gout. Ochsner J. 2021;21(4):413-415. doi:10.31486/toj.20.0143

9. What is the target level for patient who has a gout attack?

Please refer to the webinar slides.

Webinar Q&As: Strengthening the Care for Gout & Osteoarthritis

Answers by:

Dr Chuah Tyng Yu
Consultant
Dept of General Medicine
(Rheumatology), SKH

10. Is gout significantly related to poor kidney function by whatever measurement? Since failure to excrete due to poor kidney function would make a greater lifestyle change, rather than drug treatment the mainstay prevention approach?

Kidney impairment is common in people with gout: As many as 70% of adults with gout have an estimated glomerular filtration rate (eGFR) of <60 ml/min/1.73 m^2, and 20–24% have an eGFR of <30 ml/min/1.73 m^2. Reduced GFR is a risk factor for the early development of tophi, suggesting that renal function might modulate the severity of gout.

The reverse is also true, as the prevalence of gout is higher in people with chronic kidney disease (CKD): 24% of adults with an eGFR of <60 ml/min/1.73 m^2 have gout compared with 2.9% of adults with an eGFR of >90 ml/min/1.73 m^2. Monosodium urate (MSU) crystals, which form in the presence of hyperuricaemia, cause gout flares in large part by activating monocytes and macrophages, with resultant NLRP3 inflammasome-mediated IL-1β release, many other local and systemic high-grade pro-inflammatory responses, and articular neutrophil influx and activation. Hyperuricaemia is an amplifying factor for MSU crystal-induced inflammation, priming certain monocyte–macrophage pro-inflammatory responses. In this context, evidence from multiple studies supports a low-grade inflammatory phenotype in CKD. Since renal impairment is irreversible and the pathogenesis of gout and the inevitable presence of hyperuricaemia is an ongoing vicious cycle, the mainstay of management requires the pharmacological effect of lowering the serum uric acid.

Reference: Stamp, L.K., Farquhar, H., Pisaniello, H.L. et al. Management of gout in chronic kidney disease: a G-CAN Consensus Statement on the research priorities. Nat Rev Rheumatol 17, 633–641 (2021).

Webinar Q&As: Strengthening the Care for Gout & Osteoarthritis

Answers by:

Dr Francis Wong
Consultant
Dept of Orthopaedic
Surgery, SKH

11. Does grade 4 chondomalacia need surgery with mild joint space narrowing, BMI 30, moderately severe persistent pain?

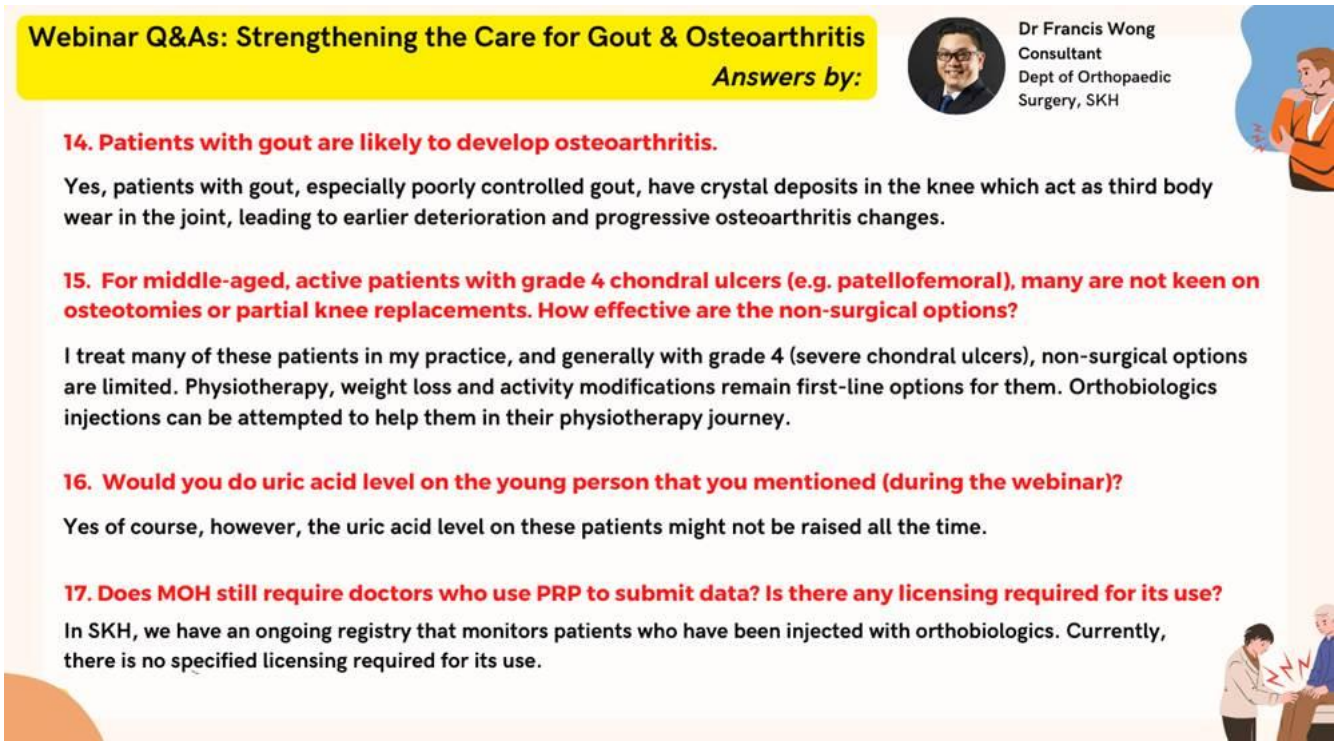
Surgery for patellofemoral issues is basically an "ala-carte" approach, where we have to decide which are the factors that require surgery and which do not. As a guide, we will exhaust all non-surgical aspects of therapy first before surgery (i.e. physiotherapy, weight loss, activity modification, strength and proprioception training).

12. Incidental finding of osteochondritis dessicans on knee X-rays - any Rx needed?

As it is incidental, I presume it is asymptomatic. Hence the treatment would be to monitor for symptoms with regular follow-ups. An MRI of the knee would be useful to ascertain the cartilage status of the lesion as well.

13. Hip or knee replacement, dislocation is higher. Is dislocation an issue in total knee replacement (TKR)?

Dislocation of the knee is less common than that of the hip in Singapore. Generally rare, dislocation of the TKR can be due to several factors, such as technical errors in surgery, implant failure, infection, and trauma to the knee. It is an issue which requires prompt management and, at times, revision surgery to alleviate the patient's symptoms.



Notes regarding CME webinar attendance:

- 1 CME point will be awarded to eligible GPs. Doctors who attended the actual webinar will have points submitted by SKH on your behalf.
- Doctors who watch the recorded webinar in your own time can submit self-claims via SMC portal (under Cat 3A). Please contact Ms Julian Ang (Julian.ang.x.l@skh.com.sg) to obtain the SMC-accredited and approved event ID for your Cat 3A self-claim.
- This webinar is part of a series of GP webinars. Details of the next webinar will be shared soon. Stay tuned!

❖ Highlights

What is Pseudogout: A Quick Guide

Email: chuah.tyng.yu@singhealth.com.sg

Understanding Pseudogout:
A Quick Guide for Primary Care

Dr Chuah Tyng Yu
Consultant

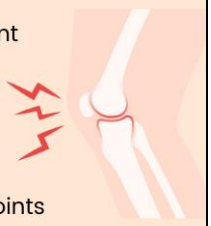
Causing symptoms similar to gout, pseudogout is a form of arthritis characterised by the deposition of calcium pyrophosphate dihydrate crystals in the joints. Also known as calcium pyrophosphate deposition disease (CPPD), pseudogout commonly affects the elderly.

Pseudogout and gout, while both crystal-induced arthritis, are distinct conditions with different causes, clinical presentations, and management strategies. Understanding the differences between these two conditions is essential for accurate diagnosis and appropriate treatment.

Clinical Presentation

Patients with pseudogout often present with acute joint inflammation, typically affecting the knees, wrists, shoulders, ankles, elbows, or hips.

- Affected joints may appear red, swollen, and warm, and the patient may experience significant pain and limited range of motion.
- Onset of symptoms can be more gradual compared to gout.
- Attacks can last from days to weeks, and may be associated with fever and elevated inflammatory markers such as ESR and CRP.
- Unlike gout, which predominantly affects the big toe, pseudogout commonly involves larger joints such as the hip or knee. Pseudogout attacks can also be triggered by trauma, surgery, or illness.



Diagnosis

The diagnosis of pseudogout is primarily clinical but can be confirmed with imaging and synovial fluid analysis. X-rays may reveal chondrocalcinosis, a characteristic finding where calcified deposits are seen in the cartilage. Synovial fluid analysis is crucial; under polarised light microscopy, calcium pyrophosphate crystals appear rhomboid-shaped and positively birefringent. Blood tests, including serum calcium, magnesium, and phosphate levels, can help rule out underlying metabolic disorders.

Management

- Management of pseudogout focuses on relieving pain and inflammation. Nonsteroidal anti-inflammatory drugs (NSAIDs) are commonly prescribed for acute attacks.
- Colchicine can be effective for both acute and prophylactic treatment. Intra-articular corticosteroid injections may provide rapid relief for severe inflammation.
- In recurrent or chronic cases, low-dose colchicine or NSAIDs can be used for prophylaxis.
- There is no specific treatment to remove CPPD crystals, so long-term management focuses on controlling symptoms and addressing underlying metabolic disorders.
- Ensuring patients maintain a healthy lifestyle, including weight management and regular exercise, can also help mitigate symptoms and improve joint function.

Implications for Primary Care

Primary care physicians play a crucial role in the early identification and management of pseudogout. Recognising the clinical presentation and differentiating it from other arthritic conditions like gout and rheumatoid arthritis is essential. Education on understanding of the natural course of the condition and providing patients with standby medication with a clear action plan can significantly improve patient outcomes through appropriate and prompt interventions during a pseudogout flare.

References:
1. Rosenthal AK, Ryan LM. Calcium Pyrophosphate Deposition Disease. N Engl J Med. 2016;374(26):2575-2584.
2. Zhang W, Doherty M, Bardin T, et al. EULAR recommendations for calcium pyrophosphate deposition. Part II: management. Ann Rheum Dis. 2011;70(4):571-575.

❖ Services

Understanding & Managing Lymphoedema: Guidance for General Practitioners

By Dr Allen Wong, Consultant, Department of Plastic, Reconstructive & Aesthetic Surgery Service, SKH
Email: allen.wong.w.j@singhealth.com.sg

Lymphoedema is a chronic condition that is often overlooked yet can profoundly impact a patient's quality of life. It is characterised by the abnormal accumulation of lymphatic fluid, leading to swelling, most commonly in the arms or legs. This condition can arise due to congenital factors (primary lymphoedema) or damage to the lymphatic system from surgery, radiation, infection, or trauma (secondary lymphoedema).

Early Identification is Crucial

Early recognition of lymphoedema significantly improves patient outcomes. GPs should be vigilant for symptoms such as **persistent swelling often in the extremities, a feeling of heaviness or tightness, restricted range of motion**, and **recurrent infections or skin changes**.

When Should GPs Refer

Referral to specialised lymphoedema clinics is recommended if patients exhibit:

- Rapidly progressing swelling
- Recurrent cellulitis or skin changes
- Severe functional impairment
- Lack of response to initial management strategies
- Breast cancer patients who have axillary nodal disease

SKH Lymphoedema Service

SKH offers a streamlined one-stop service, where patients are seen and treated by a team of multidisciplinary specialists including a lymphatic specialist, physiotherapist, and occupational therapist, who create a holistic care plan that combines medical and surgical treatments. Comprehensive Treatments: At SKH, we can treat a range of diseases related to the lymphatic system, including those related to breast cancer, uro-gynaecological cancer, skin cancer, head and neck lymphoedema, congenital lymphoedema, post-infection lymphoedema, and post-traumatic lymphoedema.

Treatments offered: click here to find out more

❖ SKH Community Health Fair

SKH is organising a **'Journey to Better Health' Community Health Fair** on **Saturday, 31 Aug 2024**, at **Fernvale Community Club**. With over 30 interactive activities at five health zones, our specialist doctors and allied professionals will share tips to better manage one's health. Participants will get the chance to redeem a goodie bag upon completion of selected activities at the event.

Find out more about the event here! Invite your patients, family, and friends to a day full of fun, exciting activities!

❖ GP Referrals to SKH Specialist Outpatient Clinics (SOC)

Get Onboard Partners Buddy (PB) with us *NOW!*

Benefits

- Directly book SOC appointments for your patients across various specialty clinics in SKH*
- View and track patients' SOC appointments and specialists' referral replies
- Strengthen collaboration between Hospital and Primary Care Setting

Please see attached PDF for the latest specialty and sub-specialty clinics at SKH Medical Centre.

What's in it for me as a GP?

- ☑ Directly secure appointments on the spot anytime^
- ☑ No need to handle multiple emails anymore
- ☑ Round-the-clock access to your patients' care plan through one platform
- ☑ Be kept updated by our specialists on patients' conditions and recommended treatment plans
- ☑ Your patients will be right-sited back to you

^For urgent referrals or new SingHealth patients, SKH will conduct the necessary verifications before booking the appointment.

Partners Buddy sharing and demo sessions are available if you are keen to get onboarded to this platform!

For more information, you may reach out to our SingHealth Partners Buddy Team (partnersbuddy@singhealth.com.sg).

*Note: For GPs who are not onboarded with PB, we accept GP referrals through the following email: **gp@skh.com.sg**. Request can take up to 3 working days or more to fulfil from the date of email received should there be more clarifications required.*

For previous GP Bulletin issues, visit SKH website.

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If you have any questions or wish to provide feedback, please email Julian.ang.x.l@skh.com.sg