

Clinical Snippets November 2024

1. Eyesore

I have recently looked at a complaint regarding delayed diagnosis and treatment of acanthamoeba keratitis. The patient presented with an irritated red right eye after showering in a residence on tank water and with her contact lenses in place. The patient was treated initially as a bacterial conjunctivitis with chloramphenicol drops changed to fucithalmic and Maxitrol ointment (steroid/antibiotic combination) when the symptoms worsened. An optometrist detected severe keratitis when the patient presented for a second opinion and urgent referral was made to an ophthalmologist. There were further delays waiting for results of PCR testing on a corneal swab before appropriate treatment was commenced and after many months of treatment including corneal transplant the patient was left with a nonfunctional phthisical eye.

- A [referenced resource](#) notes that up to 93% of cases occur in contact lens wearers, and approximately 5% of cases of contact lens associated keratitis are secondary to AK. While the condition is rare (reported rates ranging from 1-33 per million contact lens wearers), early detection and treatment offers the best chance of recovery. Several risk factors contribute to the occurrence of AK, including inadequate contact lens hygiene, overnight wear, prolonged use, lens use during activities like swimming and showering, exposure to contaminated water, trauma, the use of contaminated contact lens solution and orthokeratology.
- AK typically manifests unilaterally, although it may rarely occur in both eyes. A defining characteristic of AK, even in its early stages, is severe pain disproportionate to the clinical findings believed to be triggered by the activity of trophozoite-derived proteases. Patients commonly complain of reduced vision, eye redness, a foreign body sensation, photophobia, tearing, and discharge. Symptoms may fluctuate in intensity, ranging from mild to severe. Alarming, 75% to 90% of patients with early AK are initially misdiagnosed, underscoring the importance of considering AK in patients where symptoms persist for several weeks without improvement despite strict adherence to a daily regimen of topical antibiotics or antivirals. Approximately 39% of patients with AK do not respond to initial therapy. Individuals with more severe clinical presentations or a history of corticosteroid use before diagnosis face a higher likelihood of treatment failure.
- [Health Pathways](#) section on the red eye emphasises the importance of an adequate eye examination including visual acuity and corneal staining when the history might suggest keratitis. Keratitis red flags include painful, red eye in a contact lens wearer and severe pain that is inconsistent with clinical signs in a contact lens wearer. The initiation of topical ocular steroids in primary care is open to discussion.

2. Syphilis again

The [September Waikato Public Health Bulletin](#) included a reminder regarding the increasing prevalence of syphilis in the community. The [2023 STI Annual 2023 Dashboard](#) and [supplementary report](#) demonstrate a 45% increase in syphilis cases in Aotearoa since 2022. In Waikato, there were 98 cases reported throughout 2023, an increase from 57 in 2022. The highest number of cases continue to be reported in men who have sex with men (MSM), and the 30-39 and 40+ year age group. There are increasing case numbers reported in men who have sex with women (MSW), particularly in Waikato.

- Untreated syphilis in pregnancy can lead to adverse outcomes including stillbirth, premature birth, and neonatal death. The incidence of congenital syphilis is inequitable, with Māori and Pacific whānau disproportionately impacted. Access to timely antenatal care is important to ensure early identification and treatment of syphilis in pregnancy.
- Consider testing for syphilis in patients with unusual skin rashes, oral, genital or perianal ulcers, lymphadenopathy, hepatitis and/or neurological symptoms. Syphilis can affect any body system and cause end organ damage in its secondary stage.
- The NZSHS has produced a [statement on the use of doxy-PEP](#) (postexposure doxycycline prophylaxis). Three randomised controlled trials among cisgender men who have sex with men and transgender women who have sex with men at risk of bacterial STIs have shown a relative risk reduction of 70 to 80% for syphilis and 70 to 90% for chlamydia in those randomised to take a single dose of 200mg doxycycline within 72 hours after a possible exposure. Efficacy against gonorrhoea is highly variable (0-50%) dependent on local resistance patterns. The statement outlines those situations where you might consider prescribing doxy-PEP including relevant precautions.

3. B12 and metformin

AI have recently reviewed a case of late diagnosis of symptomatic Vitamin B12 deficiency in a patient with T2DM on metformin. A 2022 [UK drug safety update](#) gives useful information on the topic including:

- metformin can commonly reduce vitamin B12 levels in patients, which may lead to vitamin B12 deficiency
- the risk of low vitamin B12 levels increases with higher metformin dose, longer treatment duration, and in patients with risk factors for vitamin B12 deficiency
 - ◆ Existing low B12 levels (lower end normal range)
 - ◆ People at risk of decreased absorption (elderly, inflammatory bowel disease, gastric resection or autoimmune conditions)

- ◆ Strict vegan and some vegetarian diets
- ◆ Concomitant use of medications known to decrease B12 absorption (proton pump inhibitors, colchicine)
- test vitamin B12 serum levels if deficiency is suspected (for example, in patients presenting with megaloblastic anaemia or new-onset neuropathy) and follow current clinical guidelines on investigation and management of vitamin B12 deficiency (eg Health Pathways).
- Other symptoms of low vitamin B12 levels may include mental disturbance (depression, irritability, cognitive impairment), glossitis (swollen and inflamed tongue), mouth ulcers, and visual and motor disturbances.
- consider periodic vitamin B12 monitoring in patients with risk factors for vitamin B12 deficiency
- administer corrective treatment for vitamin B12 deficiency in line with current clinical guidelines (oral vs IM – debated); continue metformin therapy for as long as it is tolerated and not contraindicated

4. Itraconazole and heart failure

Another recent case I have reviewed involved a patient with heart failure secondary to cardiomyopathy being prescribed itraconazole for severe tinea corporis and developing a marked exacerbation of his heart failure. He was not warned of the risk of exacerbation and the prescriber was not aware.

[NZF](#) presents a 'blue box' precaution:

Heart failure

Itraconazole has a negative inotropic effect and heart failure has been reported with treatment. Caution is advised when prescribing itraconazole to patients at high risk of heart failure. Those at risk include:

- patients receiving high doses and longer treatment courses;
- older patients and those with cardiac disease;
- patients with chronic lung disease (including chronic obstructive pulmonary disease) associated with pulmonary hypertension;
- patients with renal failure or other oedematous disorders;
- patients receiving treatment with negative inotropic or interacting drugs, e.g. calcium channel blockers such as diltiazem or verapamil.

Itraconazole should be avoided in patients with ventricular dysfunction or a history of heart failure unless the infection is serious. Discontinue if signs and symptoms of congestive heart failure develop.

The MCNZ statement on [Good prescribing practice](#) (revised Feb 2024) includes: *Be familiar with the indications, adverse effects, contraindications, major drug interactions, appropriate dosages, monitoring requirements, effectiveness and cost-effectiveness of the medicines that you prescribe.* How is this requirement s best achieved in a time constrained environment?

5. BP cuff position

A recent [Medscape article](#) reviewed a crossover, randomized trial published in [JAMA](#) last month looking at the effect of arm position on blood pressure readings. Guidelines for BP measurement recommend arm support on a desk with the mid-cuff at heart level. The study found that supporting the arm on the lap overestimated systolic BP (SBP) by 3.9 mm Hg and diastolic BP (DBP) by 4.0 mm Hg. When the arm hung at the side, readings overestimated SBP by 6.5 mm Hg and DBP by 4.4 mm Hg, with consistent results across subgroups. The conclusion: Commonly used, nonstandard arm positions during BP measurements substantially overestimate BP, highlighting the need for standardized positioning.

6. Low dose naltrexone

A September [NZ Doctor article](#) reviewed the use of low dose naltrexone in post-Covid syndrome and some other conditions. Key points were:

- In low doses (typically 3–4.5mg daily), naltrexone appears to modulate neuroinflammation and increase endorphin production, resulting in improved immune system modulation.
- Low-dose naltrexone has shown promising results in fibromyalgia/chronic fatigue syndrome, chronic pain, Crohn disease, multiple sclerosis and long COVID, although the quality of evidence is generally low.
- While further research is needed, given the limited choice of effective therapies for functional syndromes, LDN is a relatively safe and, in many cases, effective treatment when first-line options fail.

The article examines the evidence base for use of LDN in the various conditions described. Note: Naltrexone is produced as a 50mg tablet and LDN requires compounding by a pharmacy or compounding laboratory. Cost is around \$115 for 100 days' supply direct from CompoundLabs (compoundlabs.co.nz); if ordered via a local pharmacy, they may add an extra charge. The drug is only subsidised if prescribed through and alcohol and drug service for management of alcohol dependence ([SA1408](#)) and note is being used of label outside the indications of opioid and alcohol dependence management.

7. Endometriosis and ovarian cancer risk

Issue 243 of [GP Research Review](#) reported a large population-based study published in [JAMA](#) looking at the relative risk of ovarian cancer in women with endometriosis (n=78,893) versus a control group without.

Overall, 597 women had ovarian cancer, and the mean age at first diagnosis was 36 years. Compared to women without endometriosis, those with endometriosis had a 4.2-fold increased risk of ovarian cancer even after adjustments for sociodemographic factors, gynaecologic surgical history and reproductive history. The risk was most marked for type 1

cancers (aHR¹ 7.48). Women with ovarian endometriomas and/or deep infiltrating endometriosis had a near 9.7-fold increased risk for all ovarian cancers, with aHR of almost 19 for type 1 cancers.

Type 1 cancers are composed of low-grade serous cancers, endometrioid and clear cell cancers, and mucinous cancers. This group tends to grow locally, metastasize late, and behave in a more indolent fashion. Type 2 cancers are composed of high-grade serous cancers, carcinosarcomas, and undifferentiated carcinomas. These are highly aggressive malignancies that generally present at an advanced stage.

8. ACC claim numbers

In early September 2024 ACC announced an improvement to their [claim approval notification process](#). Most kiritaki/clients will receive a text message from ACC confirming a claim approval decision, date of injury and ACC45 claim number. They will no longer receive a posted letter. Kiritaki can use their claim number straight away when seeking treatment. Those under 16 years or without a mobile contact number will continue to receive claim details by mail.

9. Goodfellow Gems

- [Gem 225 - Twenty Winks Sleep Questionnaire](#). This questionnaire asks about sleep patterns and provides personalised recommendations to help improve your patient's sleep. There are 20 questions about sleep habits, lifestyle and health.
- [Gem 226](#) - This looks at the 2024 update on modifiable risk factors for dementia published by the Lancet Commission on dementia prevention. Two new factors (LDL cholesterol (7% contribution) and visual loss in later life (2%)) have been added since the 2020 update. The accompanying [infographic](#) might be useful when discussing lifestyle improvements with your patients.

10. Health Equity

Issue 111 of [Maori Health Review](#) looked at a study published in the [NZMJ](#) on the impact of continuous glucose monitors in reducing disparities in glycaemic metrics for Maori Tamariki with recently diagnosed type 1 diabetes. At the time of the study of 206 children diagnosed over 12 months 2020-2021, CGM use was 56.7% for Māori and 77.2% for European children. At 12 months post-diagnosis, HbA1c was 10.8 mmol/mol (95% CI 2.3-19.4 mmol/mol; p = 0.013) higher in Māori vs European children without CGM, but was similar between ethnic groups in those using CGM. Hopefully the disparity in numbers accessing CGM will reduce since the devices have become funded.

¹ Adjusted hazard ratio