DMARDS

Key Facts:

- DMARD stands for Disease-modifying drugs in inflammatory arthropathies.
- These are the first-line, mainstay, treatment for many inflammatory arthropathies but how they work is not fully understood.
- Internationally it is common now for two or more conventional DMARDs to be started early in rheumatoid or psoriatic arthritis.
- The choice of drug is based on individual patient factors, response and side-effects – no particular combination has been found to be universally more effective than another.
- They can take 8–12w to be effective. There is benefit in starting early in the disease process.
- See Rheumatoid Arthritis guideline for more details.

Commonly Used Conventional DMARDS

	Methotrexate	Leflunomide	Sulphasalazine	Hydroxychloroquine
Dose range	Oral or SC 10–25mg **weekly**. Folic acid co-prescribed 1–6x weekly, but never on the same day as methotrexate.	Oral 10–20mg daily.	Oral 2–3g daily (enteric coated).	Oral 200–400mg daily (max 6.5mg/lean kg/day).
Side-effects	Nausea/GI upset. Oral ulcers.	Nausea/GI upset. Diarrhoea. Hypertension (responds to treatment). Weight loss.	Nausea/GI upset. Skin reactions. Neuropsychological symptoms.	Nausea/GI upset. Neuropsychological symptoms.
General complications	Bone marrow suppression. Acute liver toxicity. Pneumonitis.			
Drug-specific complications	Chronic liver disease/cirrhosis. Significant interaction with trimethoprim – do not prescribe.	Peripheral neuropathy.	Reduced sperm count. May colour urine, tears and contact lenses orange.	Bull's eye retinopathy – progressive and permanent visual loss. Need ophthalmology review annually after 5 years. Can exacerbate psoriasis.
Pregnancy and breastfeeding	Absolute contraindication.	Absolute contraindication (and very long half-life so discuss ASAP).	May be used – seek specialist advice.	May be used – seek specialist advice.

- Given the challenges of monitoring and potential side effects - Kijabe recommends trialing Hydroxychloroquine **alone** as first line therapy in most adult cases.
- Details on Hydroxychloroquine and Methotrexate prescribing can be found below.

Hydroxychloroquine

- Normal dose is 200mg-400mg daily.
- The only routine monitoring required is for retinopathy.
- This should be done annually but is not required an initiation.
- The prevalence is 7.5% for those on hydroxychloroquine > 5 years.

Methotrexate

- All patient on methotrexate should be discussed with a consultant at every visit.
- Methotrexate should be given at a dose of 10mg-25mg PO **WEEKLY**.
- Start on the lower dose and titrate gradually.
- It should be given with folic acid 5-10mg - **WEEKLY** THE DAY **AFTER** TAKING METHOTREXATE.
- Bloods should be monitored as follows:
    - Baseline CBC, Creat, ALT and AST
    - 2-weekly CBC, Creat, ALT and AST until on a stable dose for 6weeks.
    - Monthly CBC, Creat, ALT and AST for 3months
    - 3-monthly for duration of treatment with methotrexate.
- Any abnormalities in the blood should be managed as per the chart below.

Blood Parameter	Risk	Action
WCC <3.5 or Neut <1.6	Infection	• Discuss with consultant. • If febrile/neutrophils <0.5 take to the emergency department and start management for neutropenic sepsis.
Platlets <140	Bleeding	• Discuss with consultant if <50 • If 50-140 monitor carefully and watch trend.
ALT/AST > 2x normal	Liver failure	• Look for signs of liver disease. • Discuss with consultant. • If patient has been stable on medication for >3 months consider other causes for liver damage.
Creatinine	Renal failure	• If eGFR < 30 stop methotrexate and discuss with consultant. • Avoid NSAIDs if any degree renal impairment. • If eGFR drops below 60 or if Creatinine increase >30% in one year discuss with consultant.

- *Uptodate - accessed 25th March 2023*
- *https://gpcpd.com/handbook/GP Update/Musculoskeletal*