SHARED CARE PROTOCOL AND INFORMATION FOR GPs	NHS Lothian
Azathioprine	
Clinical indication: For the treatment of rheumatological inflammatory diseases	
Version 2.0: September 2009	Due for review: **September 2011**

Introduction
With the exception of sulfasalazine, DMARDs are usually started after assessment by a rheumatologist.
'Rheumatological Management and Shared Care Guidelines' available on website: *www.refhelp.scot.nhs.uk*

Shared Care
A shared care protocol is used to **facilitate the sharing of care and transfer of prescribing.** This would usually take place once the patient's condition is stable; the patient is demonstrably benefiting from the treatment and is free from any significant side effects. GPs should only take on the prescribing when they are confident in the use of the drug, in the context of the protocol. Contingency plans must be in place to enable the patient to receive the recommended treatment, should the GP decline to prescribe.

Indication for Therapy
Indications – active joint inflammation usually supported by indices of inflammation.
Duration – most drugs require up to 3 to 4 months trial to assess efficacy. Therapy is continued providing the drug is working and there are no side effects.
Relapse is common after withdrawal of therapy.

Preparations available
25mg and 50mg tablets.

Recommended Dosage and Administration
- First week: 50mg daily.
- Then, if tolerated, 100mg daily.
- Can increase to 2-3mg/kg/day after further week if well tolerated.

Renal impairment requires adjustment of dose.

Cost
56 tablets x 50mg = £6.41.

Adverse Effects and Drug Interactions
Common: a minority of patients experience nausea; hepatic complications are uncommon, and increased susceptibility to infections is uncommon in non-transplant population.
Rare: acute pancreatitis and pneumonitis (immediate cessation of azathioprine indicated).

Live vaccines are contra-indicated with azathioprine
Allopurinol: dose of azathioprine should be limited to one quarter of the normal dose (i.e. <0.6mg/kg/day).
Warfarin: Azathioprine inhibits the anticoagulant effects of warfarin – monitoring of INR required.
Co-trimoxazole and trimethoprim: increased risk of haematological toxicity.

Precautions and Contra-indications
Encourage use of sunscreen and protective covering to reduce sunlight exposure.
Cautioned in localised or systemic infection, including hepatitis B and C, and history of tuberculosis.
Thiopurine methyltransferase deficiency, Lesch-Nyhan Syndrome.

Pregnancy and Lactation
There is no evidence that azathioprine is teratogenic. However, there have been reports of premature birth and low birth-weight following exposure to azathioprine. Spontaneous abortion has been reported following maternal or paternal exposure.
Breast feeding should be avoided.

Contact Points
Rheumatology Clinical Nurse Specialists:
0131 537 1405
Rheumatology SpR (via switchboard):
0131 537 1000
Rheumatology Clinical Pharmacist:
0131 537 1000 (bleep 8461)
Rheumatic Diseases Unit (WGH):
0131 537 1798
Rheumatology Secretary (St John's Hospital):
01506 52 3824

Approved for use by the General Practice Prescribing Committee, LPCD and the Drug & Therapeutics Committee, LUHD.

Shared Care Responsibilities

Aspects of Care for which the Consultant is responsible

- Assessing the need for DMARD.
- Arranging for the patient to receive counselling in verbal and written form.
- Providing relevant baseline investigations.
- Following the patient's response to treatment at the out- patient clinic.
- Communicating advice to the patient's GP re monitoring requirements.
- At any stage of treatment, advising GP of concerns re monitoring or potential adverse effects of treatment.

Aspects of Care for which the General Practitioner is responsible

- Prescribing DMARD under the guidance of the consultant.
- Reporting any suspected adverse reactions to the patient's consultant and complete a yellow card if appropriate. Discuss any significant abnormalities with consultant.
- Liaising with the consultant regarding any complications of treatment.
- Monitoring the general health of the patient.
- Monitoring for specific side effects as detailed in "Monitoring" section.
- Provision of pneumococcal and annual influenza vaccination.

Monitoring

Test	Frequency	Abnormal result	Action if abnormal result
FBC	Weekly for first 6 weeks Fortnightly until dose has been stable for 6 weeks then monthly until dose has been stable for 6 months then Three monthly	WBC <3.5 x 10^9/l neutrophils <2.0 x 10^9/l platelets <150 x 10^9/l	Withhold azathioprine and discuss with specialist team.
		MCV >105 fl	Check B12, folate and TSH. If abnormal, treat underlying abnormality; if normal, discuss with specialist team.
LFTs		AST > twice upper limit of normal reference range. ALT > twice upper limit of normal reference range.	Withhold azathioprine and discuss with specialist team.
U&Es	Every 6 months		
creatinine			

- Abnormal trends should prompt extra vigilance.
- Temporarily withdraw if the patient reports sore throat, unexplained bleeding or bruising, mouth ulcers or other signs of blood dyscrasia or evidence of infection. Perform repeat blood monitoring.
- In the event of an unexplained acute widespread rash, withhold azathioprine and seek urgent specialist (preferably dermatological) advice. Inform rheumatologist.
- Trends in ESR are useful in decision-making.

Version 2.0: September 2009 Revision Date: September 2011
This information was prepared by the Rheumatic Diseases Unit and Pharmacy Department, Western General Hospital, NHS Lothian through liaison with the General practice Prescribing Committee and LUHD Drug and Therapeutics Committee

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