Ospidéal Ollscoile Chorcaí
Cork University Hospital

Department of Rheumatology

Azathioprine (Imuran)

GP Information Sheet

Azathioprine

Azathioprine is converted to mercaptopurine, an antimetabolite interfering with nucleic acid synthesis, and so acts as an immunosuppressant agent. Can be used in autoimmune disorders for example SLE, polymyositis, autoimmune hepatitis etc.

Pre Treatment Assessment

FBC, U&E, Creatinine and LFT. TPMT (Thiopurine Methyltransferase) assay to determine drug clearance (in selected patients).

Administration

Tablets should be swallowed whole with plenty of water or just after food to minimize nausea.

A typical dose regime is:

1mg/kg/day increasing after 4-6 weeks to 2-3mg/kg/day depending on clinical response and haematological tolerance.

Precautions and Contraindications

Azathioprine can reduce warfarin levels in the blood, therefore patients on warfarin and azathioprine will require careful monitoring of INR levels.

Avoid concomitant use with Febuxostat, Mercaptopurine and Tacrolimus.

There have been rare reports of lymphomas and other malignancies in patients who have been treated with Azathioprine.

The use of concomitant **allopurino**l is not advised. Azathioprine may also interact with **sulphasalazine, rifampacin** and **co-trimoxazole** so care should always be taken when prescribing these medications.

Please be aware that the concomitant use of **ACE inhibitors** may induce anaemia or leukopenia.

Live vaccines should be avoided in patients taking Azathioprine.

Pneumovax, annual flu vaccine and covid-19 vaccine are recommended and safe.

Passive immunization should be carried out using Varicella Zoster immunoglobulin (VZIG) in non-immune patients if exposed to **chickenpox** or **shingles.**

Time to Response

Approx 2-3 months

Monitoring

If TPMT normal; FBC 2 weekly for the first month then every 3 months. If TPMT low; FBC weekly for the first month then every 3 months. LFT monthly until dose is stable, then every 2-3 months.

Actions to be taken

Neutrophils <2.0* 10^9/1	Withhold until discussed with Rheumatologist
Platelets <150* 10^9/1	
>2 fold rise in AST, ALT or Alk Phos (from upper limit of reference range)	
Rash or ulceration	
MCV of 96-100fl is an acceptable level. MCV of 100fl or higher	Investigate and if B12 or folate low start appropriate supplementation
Abnormal bruising or sore throat	Withhold until FBC results available

Please note that in addition to absolute values for haematological indices, a rapid fall or a consistent downward trend in any value should prompt caution and extra vigilance.

Side Effects

Haematological: (Extremely rare but may reflect underlying disease rather than medication effect). Leukopenia, anaemia, neutropenia, thrombocytopenia, macrocytosis, erythroid hypoplasia.

Hepatic:
Liver dysfunction (tends to be dose related).

Gastrointestinal:
Nausea, loss of appetite and diarrhoea.

Mucocutaneous:
Urticaria, erythematous pruritis, oral ulceration and alopecia.

Other:
Myalgia, arthralgia, drug fevers, rigors, hypotension and interstitial nephritis, pancreatitis and opportunistic infections.

Please consult up to date relevant literature (data sheets) or BNF when prescribing this agent.

Please contact the Rheumatology team if you have any other queries regarding the prescribed medication.

Contact Details

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