

Mercaptopurine in inflammatory bowel disease

Licensed Indication and key points

This guideline covers its use in the following areas:

- 6-mercaptopurine (6-MP) is used as a steroid-sparing agent in both Ulcerative Colitis and Crohn's disease.
- It is used in the management of inflammatory bowel disease to induce and maintain remission in patients intolerant of azathioprine.
- This shared care guideline, however, will only cover the treatment of adults ≥ 18 years of age with Inflammatory Bowel Disease.
- Mercaptopurine is not licensed for the indications above but its use is widely established in Inflammatory Bowel Disease (listed in the BNF)
- This is an anti-metabolite interfering with nucleic acid synthesis. It is metabolised by the enzyme thiopurine methyltransferase (TPMT). Patients with intermediate or low TPMT activity and are at greater risk of adverse drug reactions on standard doses and are at risk of suffering life-threatening complications even when treated with low doses of azathioprine. TPMT activity is usually measured before a patient is prescribed azathioprine.
- Patients on mercaptopurine should be advised to wear protective clothing and use sunscreen with a high protection factor.
- Live vaccines should be AVOIDED

Initiation and maintenance

Oral:

6-mercaptopurine is administered orally and is available as 50mg tablets.

- The usual dose of 6-mercaptopurine is 1mg to 1.5mg/kg daily. However, some patients may respond to lower doses.
- After any dose change, the patient should be transferred back to hospital led care where they will be the responsibility of the consultant/hospital team until shared care is re-requested.

Monitoring

MONITORING	RESPONSIBILITY	CONDITIONS	TESTS
Pre-treatment	Hospital team	All	<ul style="list-style-type: none"> • FBC, LFTs, U&Es, CRP, TPMT level and phenotype, and Varicella Zoster Results to be known before drug is commenced
Initiation to stabilisation	Hospital team/GP	All	<ul style="list-style-type: none"> • FBC, LFT, U & Es At initiation and after any increase in dose - Every week for 4 weeks until stabilised
Ongoing	GP	All	<ul style="list-style-type: none"> • FBC, LFT, U&Es 3 monthly

Criteria for managing events & symptoms occurring during mercaptopurine therapy in primary care

LABORATORY EVENTS	VALUES	ACTION
MCV	Increased > 105 fL	Seek specialist advice. Check TFT, B12 and folate, Monitor LFTs as could be dose-related.
WBC	< 3.5 x 10 ⁹ /L	Seek specialist advice , repeat FBC in 1 or 2 weeks.
Neutrophils	< 1.6 x 10 ⁹ /l – consider stopping drug 1.6-2 x 10 ⁹ /l – check trend	
Platelets	< 140x 10 ⁹ /l - consider stopping drug	
Haemoglobin	<80g/dL - consider stopping drug 80-100g/dL – check trend	
Significant deterioration in renal function	Creatinine increase >30% over 12 months or calculated GFR <60ml/min	Seek specialist advice. Caution dose reduction advised in renal impairment
Elevation in liver enzymes (AST, ALT) or falling albumin	>2x upper limit of normal (ULN) - consider dose adjustment; >3x ULN - consider stopping drug Albumin <30 g/l - please review patient for other medical problems	Seek specialist advice.

SYMPTOMS	MANAGEMENT
Rash , oral ulceration, stomatitis	Stop mercaptopurine , repeat FBC immediately and discuss with specialist
Cough, dyspnoea infection, fever, rigors	
Abnormal bruising or bleeding or severe or persistent sore throat	
Abdominal pain suggestive of pancreatitis, jaundice,	
Nausea, vomiting and diarrhoea	Withdrawal of drug may be necessary if persistent
Hair loss, pneumonitis	Rare but stop and discuss with specialist

Drug interactions, contraindications and precautions

See [BNF](#) and manufacturer’s SPC [Home - electronic Medicines Compendium \(eMC\)](#) for up-to-date advice

Prescribing Responsibilities

- Refer to principles of shared care document

Contact details

Department / Specialist	Contact Telephone Number
Hospital switchboard – ask for specialist or On-Call specialist out-of-hours	01268 524900
Gastroenterology	01268 524900 ext 3970 or 3987

Local Enhanced Services for Shared Care Monitoring
Level 1: The prescribing of this medication only.
Level 2: The prescribing and monitoring of this medication and disease

Document Control	
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Shared Care Guidelines are also available electronically via: https://basildonandbrentwoodccg.nhs.uk/your-health/medicines-management	
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Checked by:	Gastroenterologists, BTUH BBCCG Prescribing Working Group
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