Azathioprine and 6-mercaptopurine (6-MP) for use in Inflammatory Bowel Disease (IBD) in adults

Shared Care Protocol

This protocol highlights prescribing and monitoring guidance for azathioprine and 6-mercaptopurine therapy. It should be read in conjunction with the HMMC shared care principles document, Summary of Product Characteristics (SPC) available on www.medicines.org.uk/emc and the BNF.

This shared care agreement outlines suggested management for the prescribing of azathioprine and mercaptopurine for IBD patients when the responsibility is shared between the specialist and general practitioner (GP). Sharing of care assumes communication between the specialist, GP and patient. It is important that patients are consulted about treatment and are in agreement with it. The intention to share care should be explained to the patient by the doctor initiating treatment.

Prescribing of azathioprine or mercaptopurine for IBD is to be initiated in the secondary care gastroenterology clinic by a hospital specialist for a minimum of 12 weeks or until stable whichever is longer. The expectation is that these shared care guidelines should provide sufficient information to enable GPs to be confident to take on the clinical and legal responsibility for the prescribing and the monitoring of these drugs in stable IBD patients.

The questions below will help you confirm this:

- Is the patient’s condition predictable or stable?
- Do you have the relevant knowledge, skills and access to equipment to allow you to monitor treatment as indicated in this shared care document?
- Have you been provided with relevant clinical details including monitoring data?
- Have this document and BNF/SPC provided sufficient information for you to feel confident in accepting clinical and legal responsibility for prescribing?

If you can answer YES to all of these questions (after reading this shared care guideline), then it is appropriate for you to accept the prescribing responsibility. GPs need to formally accept shared care by completing and returning the form provided within this protocol to the specialist within two weeks of receipt of request to share care.

If the answer is NO to any of these questions, you should not accept prescribing responsibility. You should respond back to the consultant outlining your reasons for NOT prescribing on the agreement form within two weeks of receiving the request to share care using the form provided. If you do not have the confidence to prescribe, you still have the right to decline. In such an event, the total clinical responsibility for prescribing the medication and any monitoring required remains with the specialist. Please note that medication cost is not an acceptable reason for refusal to take on shared care.

The prescribing doctor legally assumes clinical responsibility for the drug and the consequences of its use as well as monitoring drug use.

Prescribing and monitoring responsibility will only be transferred when the consultant and the GP agree that the patient’s condition is stable or predictable after at least 12 weeks of treatment.
BACKGROUND AND INDICATION FOR USE

Azathioprine and mercaptopurine are used as steroid sparing, immune modulatory agents and can be used in the treatment of IBD. Azathioprine is a pro-drug and enzymatically converted into mercaptopurine and then metabolised to the active metabolite thioguanine. The onset of action is variable and the beneficial effect may not be seen for three to four months.

SUPPORTING INFORMATION

Although this is an unlicensed indication, there is strong evidence for the use of these drugs in IBD (see ECCO and BSG guidelines) and IBD is included in the BNF as a recognised indication.

Clear recommendations as to the duration of therapy with azathioprine and mercaptopurine is not available but in practice treatment will be reviewed after three to five years in secondary care. On-going treatment or withdrawal will be discussed with the patient taking into account disease activity, tolerance, patient age, co-morbidities and preferences to ensure a positive benefit-risk ratio is maintained.

RESPONSIBILITIES

Specialist responsibility

| Assessment Appointment: | ➢ Provide pre-treatment counselling and documentation of discussion in patient's records. This counselling should include rationale for treatment; benefits; time to response; potential side effects; precautions; the essential need for and frequency of regular blood tests; written information about the medication; shared care arrangements; obtaining agreement and consent to treatment.  
➢ Provide advice on sun exposure, vaccination and where relevant to contact specialist if planning pregnancy  
➢ Conduct pre-treatment assessment including TPMT, Hepatitis B and C, and VZV serology and HIV screen |
| --- | --- |
| Prescription appointment in a gastroenterology clinic | ➢ Initiate treatment  
➢ Issue prescription for a minimum of 6 weeks  
➢ Write to GP with baseline assessments and prescribed dose  
➢ Issue patient information leaflet  
➢ Make arrangements for initial blood test monitoring |
| First review appointment, in gastroenterology clinic can be outpatient or virtual at six weeks: | ➢ Review effectiveness/adverse-effects  
➢ Check initial monitoring results  
➢ Issue prescription for a further 6 weeks  
➢ Write to GP with any dose change  
➢ Issue shared care information to GP  
➢ Invite GP to enter shared care at week 12 providing patient is stabilised on treatment. |
| Further 3/12 Specialist Review & Appointments thereafter: | ➢ Review progress in clinic  
➢ Request GP to take over blood test monitoring and drug prescription (enter shared care) once patient is stabilised on drug (usually after 3 months) i.e. drug tolerated without side effects and blood monitoring parameters satisfactory  
➢ SHARED CARE MUST FORMALLY BE ACCEPTED BY THE GP BY COMPLETION AND RETURN OF THE FORM PROVIDED WITHIN THIS PROTOCOL TO THE SPECIALIST  
➢ Respond to any GP requests for advice  
➢ Write to GP with any dose change  
➢ Specialist will organise and check an additional blood test two weeks after any dosage change. |
### GP responsibility

<table>
<thead>
<tr>
<th>Prescription appointment in a gastroenterology clinic</th>
</tr>
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</table>
| ➢ GP to contact speciality team if any concerns  

<table>
<thead>
<tr>
<th>First review appointment, in gastroenterology clinic can be outpatient or virtual at six weeks:</th>
</tr>
</thead>
</table>
| ➢ Discuss any potential adverse effects with speciality team and report to MHRA as appropriate.  
| ➢ Notify specialist ASAP if unable to participate in shared care agreement  

<table>
<thead>
<tr>
<th>Further 3/12 Specialist Review &amp; Appointments thereafter:</th>
</tr>
</thead>
</table>
| ➢ **SHAREDCARE MUST FORMALLy BE ACCEPTED BY THE GP BY COMPLETION AND RETURN OF THE FORM PROVIDED WITHIN THIS PROTOCOL TO THE SPECIALIST.** GP to respond to the request to share care within two weeks of receipt of request  
| ➢ When shared care is declined: Clinical rationale to be provided and GP to copy patient into decline letter so patient is aware hospital will be providing prescription.  
| ➢ Issue prescriptions once patient has been stabilised on medication (usually after 3 months)  
| ➢ Make arrangements for and review blood results against drug specific guidelines **BEFORE** issuing a repeat prescription  
| ➢ Only prescribe enough drug supply until next blood test due  
| ➢ **RESPONSIBILITY TO CHECK BLOOD RESULTS LIE WITH THE PRESCRIBER IRRESPECTIVE OF WHO GENERATED THE REQUEST**  
| ➢ Carry out monitoring as per shared care guidelines-3 monthly FBC, LFT, U&E (monthly if heterozygote TPMT)  
| ➢ Discuss any anomalous results or potential adverse effects with speciality team and report to MHRA as appropriate  
| ➢ Ensure patient is aware of dose changes  
| ➢ 6 monthly CRP is desirable (or as indicated) to aid disease assessment  
| ➢ Provide relevant immunisations (see under Precautions)  

### Patient responsibility

<table>
<thead>
<tr>
<th>Assessment Appointment</th>
</tr>
</thead>
</table>
| ➢ Read information provided  
| ➢ Give consent for treatment chosen and complete agreement form  
| ➢ Inform speciality team of any other medication being taken, including OTC products  

<table>
<thead>
<tr>
<th>Prescription appointment in a gastroenterology clinic</th>
</tr>
</thead>
</table>
| ➢ Safe storage and handling of medication  
| ➢ Safe keeping of patient held notes  
| ➢ Ensure compliance with regular blood test monitoring as advised  
| ➢ Obtain prescription **from hospital** until next hospital review  

<table>
<thead>
<tr>
<th>First review appointment, in gastroenterology clinic can be outpatient or virtual at six weeks:</th>
</tr>
</thead>
</table>
| ➢ Obtain prescription **from hospital** for a minimum of the first 12 weeks of treatment  
| ➢ Report any adverse effects or problems  

<table>
<thead>
<tr>
<th>Further 3/12 Specialist Review &amp; Appointments thereafter:</th>
</tr>
</thead>
</table>
| ➢ Ensure repeat prescription requested **either via GP or specialist** as agreed. GP to copy patient into decline letter so patient is aware hospital to provide prescription  
| ➢ Report adverse effects  
| ➢ Ensure GP is aware of any OTC medication they may be taking  

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CONTRAINDICATIONS AND PRECAUTIONS

Contraindications

- Hypersensitivity to azathioprine or mercaptopurine
- TPMT deficiency (homozygous state)
- Individuals with Lesch-Nyhan Syndrome
- Live vaccines during treatment and within three months of stopping treatment.

Refer to Summary of Product Characteristics (SPCs) for full details

Specific drug interactions – see below

Precautions

Immunisations and Screening

Yearly influenza and (single) pneumococcus vaccination are recommended (these are inactive vaccines) which should be carried out in primary care.

Cervical cancer screening should be ensured. In the event of missed or delayed vaccination, HPV vaccination is also recommended for females aged 13–18 years.

Live vaccinations are contraindicated whilst on treatment and for three months after stopping. Live vaccines should be given at least two weeks (preferably four weeks) before azathioprine / mercaptopurine is commenced.

Cancer risk

Patients receiving azathioprine are at a slight increased risk of lymphomas and malignancies of the skin: avoiding excessive exposure to the sun and use of high factor sunscreens are advised. The use of sunbeds should be actively discouraged.

Pregnancy and Breastfeeding

Although the manufacturers advise avoidance of azathioprine and mercaptopurine, there is no evidence of teratogenicity. Treatment is continued to avoid a flare (folic acid should be prescribed). Treatment is generally not to be started.

Pharmacist responsibility

- Ensure appropriate monitoring undertaken as directed
- Ensure appropriate dose prescribed with clear instructions on use, NOT ‘as directed’.
- Provide advice on adverse effects
- Provide advice on drug interactions with prescription and OTC medication.
- Issue patient information leaflets.
- Monitor frequency of prescription requests and contact GP if quantities in excess.
- Ensure blood test monitoring is being undertaken

Prescription appointment in a gastroenterology clinic

First review appointment, in gastroenterology clinic can be outpatient or virtual at six weeks.

Further 3/12 Specialist Review & Appointments thereafter

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The manufacturers also suggest avoidance in breastfeeding but the BSG guidelines state that emerging data suggests little or no exposure to the infant. Specialist advice should be sought if the infant is pre-term or of low birth-weight.

**DOSAGE**

Treatment with azathioprine or mercaptopurine will be started in secondary care gastroenterology clinic after appropriate discussion with the patient. Patients will receive pre-treatment counselling with regards to potential side effects and need for drug monitoring.

Azathioprine and mercaptopurine are both administered **once daily via the oral route**.

**Preparations:** Azathioprine 25mg and 50mg tablet and mercaptopurine scored 50mg tablet.

The treatment dose of either azathioprine or mercaptopurine will be guided by body weight and the serum activity of the enzyme **TPMT** (Thiopurine S-methyl transferase).

Measurement of TPMT activity is required as there are genetically determined variations. When TPMT levels are low, higher levels of thioguanine are produced and this is associated with a greater risk of myelosuppression. About 1:300 of the population have no TPMT and the drugs should be avoided in this group. In certain cases of azathioprine intolerance a switch to mercaptopurine will be considered. A change from azathioprine to mercaptopurine should lead to a dose reduction of about 50%. The table below illustrates a dosing guide.

<table>
<thead>
<tr>
<th>TPMT Status</th>
<th>Azathioprine dose</th>
<th>Mercaptopurine dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (26-50)</td>
<td>2-2.5mg/kg</td>
<td>1-1.5mg/kg</td>
</tr>
<tr>
<td>Carrier (10-25)</td>
<td>1mg/kg</td>
<td>0.5mg/kg</td>
</tr>
<tr>
<td>Deficient (&lt;10)</td>
<td>Contraindicated</td>
<td>Contraindicated</td>
</tr>
</tbody>
</table>

Lower doses should be used in the frail elderly or those with significant renal or hepatic disease.

Over the course of treatment the amount of active drug can be measured in the blood (**thioguanine metabolites**). This will be instigated by the secondary care IBD team. Dose alterations might be considered in response to sub-or supra-therapeutic drug levels or other changes in the safety blood tests (see below). **Any dose changes should be initiated in secondary care or discussed with the secondary care IBD team.**

**Allopurinol** is known to potentiate the myelotoxic effect of azathioprine and mercaptopurine significantly; co-administration has therefore been contraindicated in the past. With careful monitoring of thioguanine metabolites, allopurinol can now be successfully combined with either azathioprine or mercaptopurine in selected patients, leading to improved efficacy and tolerance of the drug. Significant dose reduction (75% reduction of original dose) is required when azathioprine or mercaptopurine are given in combination with allopurinol and this should always be initiated in secondary care. This is off-label prescribing for allopurinol and the patient is informed of this.
TIME TO RESPOND

The onset of action of azathioprine / mercaptopurine is variable and the beneficial effect may not be seen for three to four months.

PRE-TREATMENT ASSESSMENT BY THE SPECIALIST

Baseline (before treatment) taken by specialist:
- TPMT levels
- Hepatitis B and C serology
- VZV serology
- HIV testing

ONGOING MONITORING SCHEDULE

<table>
<thead>
<tr>
<th>Specialist</th>
<th>GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment initiation:</td>
<td>Long term monitoring (once patient is stable)</td>
</tr>
<tr>
<td>Weekly FBC, LFT, U&amp;E for 4 weeks, then at week 6, 10 and 14</td>
<td>3 monthly FBC, LFT, U&amp;E</td>
</tr>
<tr>
<td>Dose increase: FBC, LFT at 2 weeks.</td>
<td>6 monthly CRP</td>
</tr>
<tr>
<td></td>
<td>If patients heterozygote (carrier) for TPMT, monitoring should continue at monthly intervals. GP will be informed of this by secondary care when shared care is initiated.</td>
</tr>
</tbody>
</table>

MONITORING, SIDE EFFECTS AND ACTIONS TO BE TAKEN (see BNF/SPC for comprehensive list).

NOTE FOR MONITORING: Whilst absolute values are useful indicators, trends are equally important, and any rapid fall or consistent downward trend in any parameter warrants extra vigilance

<table>
<thead>
<tr>
<th>MONITORING</th>
<th>Action to be taken by GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myelodepression with the following abnormal results:</td>
<td>Abnormal WBC, Neutrophil and Lymphocytes: STOP DRUG. Repeat FBC within one week. Inform specialist team</td>
</tr>
<tr>
<td>WBC &lt; 3.5x10^9/l</td>
<td>Abnormal Hb levels: STOP DRUG and discuss with specialist team</td>
</tr>
<tr>
<td>Neutrophiles &lt; 2.5x10^9/l</td>
<td>Abnormal MCV: Check serum folate and B12 and TSH and if low start appropriate supplementation. Continue drug.</td>
</tr>
<tr>
<td>Lymphocytes &lt;0.5 x10^9/l</td>
<td>Abnormal Platelet: STOP DRUG and discuss with specialist team</td>
</tr>
<tr>
<td>Hb &lt; 8.5, or sudden drop</td>
<td>Repeat LFT in 1 week. If result is normal or dropping then continue drug. If result remains abnormal, discuss with specialist team.</td>
</tr>
<tr>
<td>MCV&gt;105fl</td>
<td></td>
</tr>
<tr>
<td>Platelets &lt;100 x10^9/l</td>
<td></td>
</tr>
</tbody>
</table>
limit of reference range

> 4 fold rise in AST, ALT  STOP DRUG and discuss with specialist team

<table>
<thead>
<tr>
<th>SIDE EFFECTS</th>
<th>Action to be taken by GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>If symptoms mild, suggest split dose after meals.</td>
</tr>
<tr>
<td>Hypersensitivity reactions (fever, rigors, rash, myalgia, arthralgia, hypotension, dizziness)</td>
<td>Advise immediate withdrawal (as per SPC).</td>
</tr>
<tr>
<td>Alopecia</td>
<td>If mild, reassure and continue. If significant, contact specialist team to discuss treatment alternatives.</td>
</tr>
<tr>
<td>Flu like symptoms/ myalgia/headache</td>
<td>Mild – continue – recommend taking dose at night. Moderate / Severe – STOP DRUG and discuss with specialist team.</td>
</tr>
<tr>
<td>Fever, sore throat, mouth ulceration</td>
<td>Check FBC and STOP DRUG if WCC low.</td>
</tr>
<tr>
<td>Abnormal bruising or bleeding</td>
<td>STOP DRUG until recovery and check FBC. Do not restart if blood test abnormal, contact specialist team.</td>
</tr>
<tr>
<td>Suspected Pancreatitis</td>
<td>Check amylase level and STOP DRUG until result of amylase is available. If amylase raised, withhold until discussed with specialist team. Make clinical assessment and refer to hospital if appropriate. Check Amylase, FBC, LFT, U&amp;E, CRP.</td>
</tr>
<tr>
<td>Chickenpox or shingles exposure in VZV negative patients</td>
<td>Passive immunisation should be carried out using varicella zoster immunoglobulin (VZIG) within 10 days of exposure. Contact specialist team. If unable to contact or out of hours contact medical registrar on call. In the event of clinical symptoms of VZV infection, immediate antiviral therapy should be initiated by GP or emergency care.</td>
</tr>
</tbody>
</table>

Other side effects and effects of indirect toxicity can include:
- Diarrhoea, vomiting anorexia, and abdominal discomfort.
- Bone marrow suppression (leucopenia, thrombocytopenia).
- Rarely pancreatitis, interstitial nephritis.
- Rare: Hepatotoxicity (hepatic necrosis, biliary stasis).
- Infections (Bacterial and viral (including herpes zoster and simplex, Epstein Barr virus (EBV); Cytomegalovirus [CMV]).
- Possible increased risk of non-melanoma skin cancer, lymphoma and cervical cancer.

NOTABLE DRUG INTERACTIONS (REFER TO BNF AND SPC)
- Allopurinol is known to potentiate the myelotoxic effect of azathioprine and mercaptopurine significantly; co-administration has therefore been contraindicated in the past. With careful monitoring of thioguanine metabolites, allopurinol can now be successfully combined with either azathioprine or mercaptopurine in selected patients, leading to improved efficacy and tolerance.
of the drug. Combination treatment is occasionally initiated by the Gastroenterology team and the azathioprine / mercaptopurine dose is reduced by 75% and FBC monitored carefully. This should always be initiated in secondary care. This is off-label prescribing for allopurinol and the patient is informed of this (see also: dosage).

- Risk of haematological toxicity with co-trimoxazole/ trimethoprim, avoid without specialist guidance. If used monitor FBC.
- Anticoagulant effect of warfarin possibly reduced by azathioprine.
- ACE inhibitors – increased risk of leucopenia – (if significant consider an alternative to ACE).
- Clozapine – increased risk of agranulocytosis
- Febuxostat – inhibition of xanthine oxidase by febuxostat may potentially increase plasma concentrations of these drugs. Manufacturer of febuxostat advise to avoid concomitant use.
- Phenytoin, Sodium Valproate, Carbamazepine – azathioprine reduces absorption of these drugs, lowering levels.

See Appendix 1 of the BNF or the SPC for further details.

This does not replace, but should be read in conjunction with the SPC

| BACK-UP INFORMATION/ADVICE (ENHT Gastroenterology team contact details to be confirmed) |
|----------------------------------------|----------------------------------------|----------------------------------------|
| Contact Details | Watford General Hospital | Hemel Hempstead Hospital | St Albans City Hospital |
| Switchboard | 01923 244366 | 01442 213141 | 01727 866122 |
| Medicines Information | 01923 217853 (centrally based at Watford General Hospital) | | |
| IBD Nurse Specialist | | 01442 287485 | |
| GP communications secure e-mail | | wherts-tr.IBDnurses@nhs.net | |
| Other contacts | Dr Leahy Secretary 01923 217291 | Dr Catnach/Chaudhary 01442 287041 | |
| | Dr Mcfarlane Secretary 01923 217317 | Dr Fullard Secretary 01442 287060 | |
| | Dr Wallis Secretary 01923 217318 | Dr King Secretary 01442 287645 | |
| | Dr Shariff Secretary 01923 217893 | | |

REFERENCES

4. ECCO Prevention, diagnosis and management of opportunistic infections in IBD (2014)
6. NICE guidance on DMARDs (http://cks.nice.org.uk/dmards#!/scenario:1)
7. BSG guidance (www.bsg.org.uk/pdf_word_docs/aza_ibd_dr.doc)

Appendix 1: Patient Information Sheet from British Society of Gastroenterology
http://www.bsg.org.uk/patients/general/patient-information.html

<table>
<thead>
<tr>
<th>Title of Guideline</th>
<th>Azathioprine and 6-mercaptopurine (6-MP) for use in Inflammatory Bowel Disease (IBD) in adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline Number</td>
<td>01</td>
</tr>
<tr>
<td>Version</td>
<td>1.0</td>
</tr>
<tr>
<td>Effective Date</td>
<td>November 2017</td>
</tr>
<tr>
<td>Review Date</td>
<td>September 2020</td>
</tr>
<tr>
<td>Original Version Produced</td>
<td>September 2017</td>
</tr>
</tbody>
</table>

**Approvals:**

- West Herts Hospital Trust Medicines Use and Safety Panel: September 2015
- ENHT TPC: September 2017
- Hertfordshire Medicines Management Committee: September 2017

**Author/s**

Simone Dracup, Inflammatory Bowel Disease Nurse Specialist in consultation with Dr Katharina Wallis Consultant Gastroenterologist, Dr Rakesh Chaudhary Consultant Gastroenterologist, Cheryl Kemp Inflammatory Bowel Disease Nurse Specialist

**Department(s) responsible for updating the guideline**

Gastroenterology, WHHT
Hertfordshire Shared Care Agreement Form
for use when prescribing one or more amber protocol drug

This form is used to agree shared care between the specialist, patient and GP as follows:

1. Specialist to provide pre-treatment counseling and discuss patient responsibilities.
2. Specialist to make provision of a prescription, which will be for a minimum of the initial 12 weeks of treatment. There after a GP can be requested to continue treatment provided the patient is stable.
3. Establish that the clinician responsible for prescribing should also retain responsibilities for monitoring. These functions should not be separated.
4. The specialist and patient to complete and sign the shared care agreement form.
5. Copy to be filed in patient’s hospital notes.
6. Agreement form, drug specific protocol and responsibilities to be promptly communicated to the GP (by fax or secure e-mail) and copies given to patient.
7. GP must formally accept transfer to shared care and have the right to refuse if they do not feel confident in managing the medicine / patient. GP to respond to the specialist within two weeks of receipt of the shared care agreement either accepting or declining shared care by returning the form below.
8. Scan copy of shared care agreement form, protocol and responsibilities into patient’s notes.

For completion by specialist

<table>
<thead>
<tr>
<th>Drug(s)</th>
<th>Indication</th>
<th>Date of first prescription by specialist</th>
<th>Patient weight (kg)</th>
<th>Estimated date for prescribing to be continued by the GP</th>
<th>Specialist additional comments/advice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

We accept:
- the HMMC shared care principles and
- the requirements defined in the drug specific shared care protocol(s)

<table>
<thead>
<tr>
<th>Patient name, NHS number and address or sticker</th>
<th>Contact details</th>
<th>Signature and date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialist name and designation</th>
<th>Tel</th>
<th>Fax</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GP response to shared care (please return to specialist within two weeks of receipt of request to share care)

*This form is to be completed by the GP who is requested to share care. A copy of the completed form should be retained by the GP and a copy should be returned to the specialist.*

<table>
<thead>
<tr>
<th>Patient details:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>NHS number:</td>
</tr>
<tr>
<td>D.O.B:</td>
<td>Drug requested for shared care:</td>
</tr>
<tr>
<td>Consultant:</td>
<td></td>
</tr>
</tbody>
</table>

I agree to accept shared care for this patient as set out in the shared care protocol

I do not accept shared care for this patient. My reason(s) for not prescribing are given below:

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

Please note that GP agreement is voluntary, with the right to decline to share care if for any reason you do not feel confident in accepting clinical responsibility. Refusal should not be for financial reasons.

<table>
<thead>
<tr>
<th>GP name</th>
<th>Practice address /stamp:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct telephone number:</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td>Signature:</td>
</tr>
</tbody>
</table>

Please return a copy of the completed form to the requesting specialist within two weeks of receipt of request to share care (preferably by email).
AZATHIOPRINE / MERCAPTOPURINE TREATMENT FOR INFLAMMATORY BOWEL DISEASE PATIENTS

INFORMATION SHEET

This information leaflet is designed to answer common questions patients ask about their medicine. Further information can be found in the information leaflet supplied by the manufacturer or from your pharmacist or doctor.

What are they? Azathioprine and mercaptopurine are immunosuppressant drugs used in the treatment of inflammatory bowel disease (IBD). They are often prescribed when steroids have not worked in bringing the condition under control. They allow a reduction in the dose of steroids, but may take 12-16 weeks or more to become effective.

How is it taken?
In tablet form, daily. The dosage will be advised by your Gastroenterology specialist team.

Are there any side effects?
These drugs are an important part of the treatment of patients with IBD, but a small number of patients may experience side effects that will prevent them from continuing with treatment. Should you develop symptoms that might be related to your treatment you should discuss them with your Doctor / Gastroenterologist / IBD nurse specialist. Side effects that you should look out for include:
• Feeling or being sick and loss of appetite
• Tummy/Abdominal pain – should this develop, the drug should be stopped immediately
• Hair loss
• Adverse effects on the blood
• Fever, weakness and tiredness (rare)
• Unusual bleeding / bruising (rare)
• Yellow skin - Jaundice (rare)
• Rashes (rare)

• There are no special problems for children taking these medicines.
• Lower doses of these drugs may be used in patients aged over 60 years, as there may be a slight increased risk of side effects.
• Avoid driving and hazardous work until you have learned how azathioprine / Mercaptopurine affects you as these drugs occasionally can cause dizziness.
• No known problems with alcohol.

Special monitoring
Whilst taking this treatment, you will need regular blood tests. Once the dose of treatment is stable, the frequency of blood testing will be reduced. The testing will be supervised by your doctor.

• Full Blood Count (FBC)
• Liver Function Test (LFT)
Both tests will let your doctors know how well your body is responding to this treatment.
• Some centres will also arrange a test to measure Thiopurine Methyl Transferase (TPMT).
• Elderly patients or those with poorly functioning kidneys may require kidney function tests before treatment starts. Therefore depending on your health, you may be asked to have kidney tests from time to time.

FBC and LFT will usually be checked on a weekly basis for the first four weeks of treatment, and then every month for two months and then every three months. Any change in dosage will require the monitoring regimen to change.

Other information:
• Immunisation with LIVE vaccines should be avoided. (Influenza and pneumovax can be given). Please discuss with your doctor or nurse
• Sunscreens and or protective clothing should be encouraged to reduce sunlight exposure.
• Other medicines that you are prescribed may interact with azathioprine or mercaptopurine. You should discuss any medicines changes with your pharmacist or doctor.

Azathioprine / mercaptopurine in pregnancy and breast feeding
If these medicines suit you and you become pregnant do not stop taking them but please arrange to see your doctor for advice. It is usual to continue these medicines during pregnancy in most cases because the benefits of treatment outweigh risks.

Keep all medicines out of the reach of children. Never give any medication prescribed for you to anyone else. It may harm them even if their symptoms are the same as yours.

For further information you can contact your IBD Nurse Specialist or Gastroenterology specialist on 01442 287485 (ENHT Gastroenterology team contact details to be confirmed)