

SHARED CARE GUIDELINE

MYCOPHENOLATE MOFETIL Adults ≥ 18 years of age

INTRODUCTION

Mycophenolate Mofetil is licensed for the prevention of transplant rejection.

However, it can also be used for the treatment of:

- systemic inflammatory diseases (e.g. SLE and vasculitis) and is also occasionally used in the treatment of inflammatory joint disease;
- some dermatological conditions such as dermatomyositis and polymyositis; severe psoriasis, severe atopic dermatitis, blistering conditions; pyoderma gangrenosum; vasculitis and autoimmune bullous dermatoses such as pemphigus;

Although these uses of mycophenolate are unlicensed, it is nevertheless regularly used within the UK for this indication and accepted internationally.

DOSE AND ADMINISTRATION

- Mycophenolate Mofetil is given orally.
- The usual starting dose is 1 gram daily, given in 2 divided doses (i.e 500 mg twice daily), and increased under specialist by 500mg as tolerated.
- The usual maintenance dose is 2 grams daily, but doses of up to 3 grams daily are sometimes used
- As there are potential teratogenic effects, tablets and capsules should be swallowed whole and should NOT be opened or crushed to eliminate the risk of exposure such as inhalation
- Direct contact with the skin or mucous membrane should be avoided

Mycophenolate is available as the mofetil salt (Cellcept®) and as the acid (Myfortic®). These products are not bioequivalent and therefore are not interchangeable. Prescribing of Mycophenolate must be **BY BRAND NAME AT ALL TIMES**

Cellcept® (Mycophenolate Mofetil) is available as:

- 250mg and 500mg caplet shaped tablets
- 250mg capsules
- 500mg capsules
- Oral suspension 1 gram/5ml when reconstituted with water 175ml

Myfortic® (e/c Mycophenolic Acid) is available as:

- 180 mg Tablets
- 360mg Tablets

CAUTIONS

- Elderly (increased risk of infection, gastro-intestinal haemorrhage and pulmonary oedema).
- Active serious gastrointestinal disease (risk of haemorrhage, ulceration and perforation).
- Use of sunbeds and unprotected exposure to sunlight are not recommended due to potential risk of skin malignancy.
- **Vaccinations:** live vaccines should be AVOIDED (ie oral polio, MMR, BCG and yellow fever and oral typhoid). Passive immunization should be carried out using Varicella zoster immunoglobulin (VZIG) in non-

SHARED CARE GUIDELINE

immune patients exposed to active chickenpox or shingles. Annual flu and pneumococcal vaccination is recommended

CONTRA-INDICATIONS

- Hypersensitivity to Mycophenolate Mofetil or Mycophenolic acid

PREGNANCY/BREASTFEEDING: This drug is contra-indicated in pregnancy and breastfeeding as it has the potential to affect the development of the unborn child (exclude before starting and avoid for 6 weeks after discontinuation).

Advice to patients:

- Women of childbearing potential receiving mycophenolate mofetil should be advised to use effective contraceptive prior to, during and for **six weeks** following the discontinuation of therapy.
- Women discovered or planning to become pregnant should be referred to the initiating specialist at the earliest opportunity

SIDE- EFFECTS

- **Gastrointestinal disturbances** (vomiting, abdominal pain, diarrhoea, nausea)
- **Infectious** (respiratory tract infections, candidiasis, herpes simplex, herpes zoster, UTI).
- skin cancer, benign neoplasm of skin (increased risk of malignancies including lymphoma, skin and other tumours appear to be linked to degree and duration of immunosuppression. The incidence is similar to that of other immunosuppressive agents or therapies).
- metabolic (gout, hyperlipidemia, hypertension).
- hepatitis
- rash
- renal impairment

Bone Marrow Suppression: Patients should be advised to report immediately any signs or symptoms of bone marrow suppression e.g. infection or inexplicable bruising or bleeding

See BNF and Summary of Product Characteristics for comprehensive list of side effects.

SIGNIFICANT DRUG INTERACTIONS

- Antacids with magnesium and aluminium hydroxide reduce the absorption of Mycophenolate Mofetil and therefore not taken at the same time.
- Cholestyramine should not be taken at the same time of day as it will impair the absorption of Mycophenolate Mofetil.
- NSAIDS (and other nephrotoxic drugs) should be used with caution.
- Azathioprine administration concurrently with Mycophenolate should be avoided.
- Iron preparations may lead to a reduction in absorption of Mycophenolate.

Please consult Appendix 1 of the BNF for a more comprehensive guide on drug interactions with Mycophenolate Mofetil

SHARED CARE GUIDELINE

MONITORING STANDARDS FOR MYCOPHENOLATE MOFETIL

The following standards have been agreed for the monitoring of Mycophenolate Mofetil.

Pre-treatment	<ul style="list-style-type: none"> FBC, LFTs, U&Es, blood pressure, fasting lipids, ESR, CRP
Monitoring	<ul style="list-style-type: none"> FBC, U&Es, LFTs, ESR, CRP monthly for the first three months and then every 3 months thereafter. If stable for a year, check at 6 monthly intervals. Blood pressure at each clinic appointment Fasting lipids every 6 months **Monitoring of mycophenolate blood levels is not considered necessary

EVENTS AND ACTION

Laboratory Events	Values	Action
Elevation in liver enzymes (AST, ALT) NOT ALP	>2x Normal	Stop , repeat LFTs. Discuss with specialist.
MCV	> 110 fl	No action if RBC folate, serum B12, TFT and LFTs are normal. Consider haematological opinion.
WBC	< 3.5 x 10 ⁹ /L	Stop + seek advice.
Neutrophils	< 1.5 x 10 ⁹ /L	
Platelets	< 100 - 150 x 10 ⁹ /L	
Sequential falls in WBC or neutrophils	> 10% on 3 occasions	Stop + seek advice
Sequential falls in Platelets	> 10% on 3 occasions	Stop – unless falls are from high level e.g. 600, 500, 400 x 10 ⁹ /L, which are a response to treatment.

Symptoms	Management
Gastrointestinal upset	Diarrhoea, nausea and vomiting may occur. Manage with antiemetics; discontinue drug if intolerable
Gastrointestinal bleed	STOP drug, seek immediate advice from the consultant
Development of chicken pox/shingles	Seek immediate advice from the consultant Check immunity to VZV; if not immune give anti-VZV Ig
Rash	Reassure, may settle with time. STOP if severe and seek immediate advice

SHARED CARE GUIDELINE

REMEMBER if unsure at any point: Contact the specialist for the condition

Rheumatology

- **Rheumatology: 020 8510 7612 or Specialist Nurse on 020 8510 7200 or Rheumatology Specialist Registrar on bleep 120, through the Homerton Hospital switchboard on 020 8510 5555 or E-mail huh-tr.Rheumliaison@nhs.net**
- **Dermatology: 020 8510 7690 or specialist nurse on 020 8510 5111**

Share care guideline: is a document which provides information allowing patients to be managed safely by primary care, secondary care and across the interface. It assumes a partnership and an agreement between a hospital specialist, GP and the patient and also sets out responsibility for each party. The intention to shared care should be explained to the patient and accepted by them. Intrinsic in the shared care agreement is that the prescribing doctor should be appropriately supported by a system of communication and cooperation in the management of patients. The doctor who prescribes the medicine has the clinical responsibility for the drug and the consequence of its use.

Responsibility of Consultant prescribing Mycophenolate Mofetil in shared care agreement

- Ensure that the patient/carer is an informed recipient in therapy
- Ensure that patients understand their treatment regimen and any monitoring or follow up that is required (using advocacy if appropriate)
- **Brand of drug needs to be communicated to the GP.**
- Ensure baseline investigations are appropriate before commencing treatment
- Send a letter to the GP requesting shared care for this patient
- Clinical and laboratory supervision of the patient by blood monitoring and routine clinic follow-up on a regular basis
- Send a letter/results notification to the GP after each clinic attendance ensuring current dose, most recent blood results and frequency of monitoring
- Evaluation of any reported adverse effects reported by GP or patient
- Advise GP on review, duration or discontinuation of treatment where necessary
- Inform GP of patients who do not attend clinic appointments
- Ensure that back up advice is available at all times

Responsibility of General Practitioner prescribing in shared care agreement

- Check and reinforce patient understanding of the nature, effect and potential side effects of the drug before prescribing it as part of the shared care programme and contact the specialist for clarification where appropriate
- Monitor patient's overall health and well-being
- Prescribe Mycophenolate Mofetil after communication with specialist regarding the need for treatment.
- Prescribe drug by brand name and prescribe the same brand patient was initiated on
- Monitor treatment as outlines by shared care guideline
- Promptly refer to the specialist if there is a change in the patient's condition
- Report any adverse events to the consultant where appropriate
- Report any adverse events to the CHM where appropriate
- Help in monitoring the progression of disease

Responsibility of PCT

- To provide feedback to trusts via Trust Medicines Committee
- To support GPs to make the decision whether or not to accept clinical responsibility for prescribing
- To develop and revise shared care guidelines
- To support trusts in resolving issues that may arise as a result of shared care

Patient responsibility

- Report any adverse effects to their GP and/or specialist
- Ensure they have a clear understanding of their treatment
- Report any changes in disease symptoms to GP and/ or specialist
- Alert GP and/or specialist of any changes of circumstances which could affect management of disease e.g. becoming pregnant or plans for starting a family.

SHARED CARE GUIDELINE