Wirral Clinical Commissioning Group

Wirral University Teaching Hospital NHS
NHS Foundation Trust

Shared Care Guideline

Mycophenolate mofetil for pemphigus and other dermatological diseases (Adults)

It is vital for safe and appropriate patient care that there is a clear understanding of where clinical and prescribing responsibility rests between Consultants and General Practitioners (GPs).
This guideline reinforces the basic premise that:
When clinical and / or prescribing responsibility for a patient is transferred from hospital to GP, the GP should have full confidence to prescribe the necessary medicines. Therefore, it is essential that a transfer of care involving medicines that a GP would not normally be familiar with, should not take place without the "sharing of information with the individual GP and their mutual agreement to the transfer of care."
These are not rigid guidelines. On occasions, Consultants and GPs may agree to work outside of this guidance. As always, the doctor who prescribes the medication has the clinical responsibility for the drug and the consequences of its use.

Indications:	**Dosage and administration:**
Unlicensed indications: severe eczema and pemphigus.	Initial dose: 500mg orally twice daily After 1 month if monitoring stable: 1g orally in the morning, 500mg in the evening After further month if monitoring stable: 1g orally twice daily. Review after 3 months for efficacy and tolerance. Note: mycophenolate has demonstrated teratogenic effects in rats and rabbits, as a precaution tablets should not be crushed and capsules should not be opened. Availability: Prescribe the brand of 500mg tablets or capsules with the lowest acquisition cost. For this indication specific brand continuation is not necessary.

Monitoring requirements:
Before treatment:

- Full blood count (FBC) including platelets, urea and electrolytes (U&Es), creatinine, liver function tests (LFTs), Chest X-ray

During treatment:

- FBC, LFTs, U/Es and creatinine weekly for the first month then monthly for 1year then every 3 months thereafter if remains stable.
- Annual fasting lipids (HDL, Cholesterol, HDL/Cholesterol ratio)

Secondary Care responsible for 3 months whilst patient stabilised, thereafter responsibility for monitoring rests with the GP

Action to be taken if abnormal results/adverse effects:

• WBC< 3.5 x 10^9/L	Check neutrophil count
• Neutrophils < 2.0 x 10^9/L	Monitor weekly. If falls below 1.5 x 10^9/l STOP DRUG and contact consultant dermatologist.
• Platelets < 150 x 10^9/L	Monitor weekly. If drop below 100 x 10^9/l contact consultant dermatologist.
• Abnormal bruising/bleeding	Repeat FBC and act on results as above
• Sore throat	Repeat FBC and act on results as above
• Recurrent infections	Can be associated with hypogammaglobulinaemia; measure serum immunoglobulin levels and contact consultant dermatologist
• Development of persistent respiratory symptoms, such as cough, dyspnoea: contact consultant dermatologist	

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.

Contraindications, Cautions, Drug interactions and Adverse effects

The following are not exhaustive lists.
Healthcare professionals using this shared care guideline are advised to consult the following references where necessary:

- BNF available at: https://bnf.nice.org.uk/
- Summary of Product Characteristics (SPC) available at: www.medicines.org.uk

Contraindications:

- Mycophenolate should not be given to women who are pregnant, or likely to become pregnant. Effective contraception must be used before beginning therapy, during therapy, and for six weeks following discontinuation of therapy. 2 forms of contraception are preferred.
- Male patients or their female partner should use reliable contraception during treatment with mycophenolate and for at least 90 days after stopping.
- Mycophenolate is contraindicated in women who are breastfeeding.
- Live vaccines are contra-indicated in patients receiving mycophenolate on theoretical grounds.
- Hypersensitivity to mycophenolate mofetil or mycophenolic acid.

Drug interactions:
Check interactions in the BNF before co-prescribing any medicines;
available at https://bnf.nice.org.uk/
Interactions of note include:

- Rifampicin reduces the effect of mycophenolate.
- Antacids and proton pump inhibitors, phosphate binders (e.g.sevelamer), iron tablets and cholestyramine reduce the absorption of mycophenolate if taken at the same time of day.
- Aciclovir – mycophenolate increases aciclovir plasma levels (significant only in renal impairment)

Cautions:

- Active serious digestive system disease (risk of haemorrhage, ulceration and perforation).
- Elderly (increased risk of infection, gastrointestinal haemorrhage and pulmonary oedema)
- Patients with suspected lymphoproliferative disorder or unexplained anaemia, leucopenia and thrombocytopenia.
- Patients receiving immunosuppressive therapy are at slightly increased risk of developing lymphomas and other malignancies, notably skin cancers – exposure to sunlight and UV light should be limited and patients should be advised to wear protective clothing and use a sunscreen with a high protection factor.

Adverse Effects:
taste disturbance, gingival hyperplasia, nausea, constipation, flatulence, anorexia, weight loss, vomiting, abdominal pain, gastro-intestinal inflammation, ulceration, and bleeding, hepatitis, jaundice, pancreatitis, stomatitis, oedema, tachycardia, hypertension, hypotension, vasodilatation, cough, dyspnoea, insomnia, agitation, confusion, depression, anxiety, convulsions, paraesthesia, myasthenic syndrome, tremor, dizziness, headache, influenza-like syndrome, infections, hyperglycaemia, renal impairment, malignancy (particularly of the skin), blood disorders (including leucopenia, anaemia, thrombocytopenia, pancytopenia, and red cell aplasia), disturbances of electrolytes and blood lipids, arthralgia, alopecia, acne, skin hypertrophy, and rash, intestinal villous atrophy, progressive multifocal leucoencephalopathy, interstitial lung disease, pulmonary fibrosis

Specialist responsibilities:

Patient information leaflet

- Provide patient with written patient information about the treatment.
- Discuss with the patient the benefits and side effects of treatment with mycophenolate
- If the patient is a woman of child bearing potential or male – ensure that they are aware of the importance of effective contraception and the need to discuss with their consultant if they wish to become pregnant
- Discuss how the patient / carer can be aware of possible signs of mycophenolate toxicity or intolerance
- Ensure baseline monitoring as described above.
- Ensure that the patient understands and accepts their responsibilities (see section below)
- Seek consent for treatment and document in the patient's notes.
- Prescribe first 3 months of mycophenolate, or until patient is stable
- Provide written instruction to the GP for initiation and escalation of mycophenolate.
- Review the patient at the intervals specified below to monitor the patient's disease activity, the efficacy of the treatment and the ability to tolerate it, and consider whether continuation of treatment is appropriate.
- Discontinue if no response or patient has a significant adverse effect.
- Promptly communicate with the GP via a clinic letter any changes in treatment, results of monitoring undertaken, and assessment of adverse events. The clinic letter should clearly state if the dose has remained the same or if a dose adjustment had been made – specifically highlighting the new dose in comparison with the preceding one.
- Advise GPs when to stop treatment.
- Provide clear arrangements for back-up, advice and support.
- Report serious adverse events to https://yellowcard.mhra.gov.uk/

GP's responsibilities:

- Provide the patient with monthly repeat prescriptions of medication following written instructions for initiation and escalation by the specialist. The patient should allow at least 48 hours for the prescription from the GP to be generated.
- Refer promptly to the specialist if there is a change in the patient's status or concerns regarding compliance. In most cases, do not stop treatment without discussion with the Dermatology Consultant
- If patient fails to attend more than 2 monitoring visits it is not safe to continue treatment – contact the Dermatology Consultant for advice.
- Report serious adverse events to the specialist and at https://yellowcard.mhra.gov.uk/
- Administer pneumococcal polysaccharide vaccine and annual influenza vaccines.
- Consider passive immunisation with Varicella zoster immunoglobulin in non-immune patients exposed to chicken pox or shingles.

Patient responsibilities:

- Read the written patient information provided about the drug and have a clear understanding of the risks / benefits of mycophenolate treatment.
- Attend for blood tests.
- Report any adverse effects to their GP and/or specialist whilst treated with mycophenolate and consider reporting at https://yellowcard.mhra.gov.uk/
- Limit alcohol to national safe weekly limits

Secondary care review: During initiation: every 4 – 6 weeks until controlled
Once disease controlled: Annual review by consultant

Back up advice and support:	**Telephone**
Dr B Tan, Consultant Dermatologist Dr N Hashim, Consultant Dermatologist Dr W Farrar, Consultant Dermatologist	Dermatology secretaries: 0151 482 7782 or 0151 482 7778

Revised By:	Victoria Keers. Highly Specialist Pharmacist	**Reviewed By**	Dr W Farrar, Consultant Dermatologist Abigail Cowan, Medicines Optimisation Pharmacist, MLCSU on behalf of Wirral CCG.