SHARED CARE AGREEMENT

Name of medicine Ciclosporin (Capimune®)

Indication For the treatment of inflammatory rheumatic and skin conditions

Version: **2.0** Approval date: **December 2022** Review date: **December 2025**

The Shared Care Agreement (SCA) is intended to facilitate the accessibility and safe prescribing of complex treatments across the secondary/primary care interface. It does not contain all of the relevant product information, which should be sought using the current British National Formulary and manufacturer's Summary of Product Characteristics. The SCA must be used in conjunction with the NHS Lothian Procedure for the Shared Care of Medicines, available here.

Roles and responsibilities

Listed below are specific responsibilities that are additional to those included in the NHS Lothian Policy and Procedures for Shared Care. Please refer to the policy for core roles and responsibilities that apply to all Shared Care Agreements.

Consultant

- Assessing the need for ciclosporin therapy.
- Stating the target dose.
- Undertaking and assessing the relevant baseline investigations.
- Arranging for the patient to receive verbal and written information on ciclosporin for the relevant indication
- Advising the patient regarding fertility, pregnancy and the need for contraception as appropriate.
- Treatment will be initiated by the consultant and the supply made by secondary care for the first 8 weeks. During this time the specialist service will provide comprehensive patient support including monitoring for adverse effects, addressing any treatment-related issues and responding to patient queries.
- Making arrangements for results of blood tests to be reviewed during the first 6 weeks of treatment.
- Making arrangements for patient to be reviewed 3-4 months after initiation of treatment to assess response.
- Providing advice to the GP regarding monitoring, adverse effects and dose modifications when required.
- Making arrangements for the patient to be kept under long term review
- Specialist service to refer patients for vaccinations which are out with routine vaccination schedules or recall programmes via the clinician referral form (http://intranet.lothian.scot.nhs.uk/Directory/publichealth/Immunisation/Pages/VTP-(Vaccine-Transformation-Programme).aspx). Please note that Patient Specific Directions (PSD) are required for bespoke vaccination schedules where there is no PGD in place. The referral forms should be sent to the partnership that is responsible for administering vaccinations to their residents.

General Practitioner and primary care non-medical prescribers

- Prescribing ciclosporin in consultation with the specialist service after the first 8 weeks.
- On initiation of treatment, the specialist service will provide patients with pre-labelled forms for blood tests. Bloods are taken in primary care and reported to the specialist service during the first 6 weeks of treatment. The GP is to arrange for blood tests to be taken at appropriate intervals thereafter as detailed in "Monitoring".
- Arranging for blood pressure to be checked at 2, 4 and 6 weeks and at appropriate intervals thereafter as detailed in "Monitoring".
- Monitoring for specific side effects as detailed in the manufacturer's Summary of Product Characteristics and "Monitoring" after the first 8 weeks of treatment.
- Advising on a suitable form of contraception where relevant.
- Encouraging participation in relevant national cancer screening programmes.

Patient, Relatives, Carers

- As listed in the NHS Lothian Policy and Procedures for the Shared Care of Medicines.
- Ensuring adherence to phlebotomy requirements throughout treatment.
- Patients should report immediately any evidence of infection, unexpected bruising, bleeding or jaundice and any new/suspicious skin lesions or lymph node swellings.

- Patients are advised to purchase and use sunscreens [SPF 50 or above] and protective covering to reduce sunlight exposure.
- Patients can access advice from the relevant specialist team as follows:
    - Rheumatology patient helpline: 0131 537 1405
    - Dermatology - contact the relevant consultant's secretary via switchboard: 0131 536 1000

Support and Advice for the GP and primary care non-medical prescribers

Rheumatology

SPR or Rheumatology Consultant on call 13.00-17.00 on weekdays and 09.00-12.00 on Saturdays and public holidays via the switchboard (0131 537 1000). Urgent queries outwith these times will be dealt with by the on-call medical team.

GPs can access advice from the rheumatology specialist service using the rheumatology on call e-mail which aims to give advice with a 24 hour response time: rheumatology.oncall@nhslothian.scot.nhs.uk. Advice will be communicated back to the GP by e-mail. E-mail requests should copy in the practice's clinical e-mail address and ask that the reply is sent to all, so that the reply is picked up even if the sender is not available.

Dermatology

Contact the relevant consultant's secretary as detailed on clinic letter. For urgent queries please contact the dermatology registrar on call via the switchboard (0131 536 1000), available Monday to Thursday 9am-9pm (excluding bank holidays), Friday to Sunday 9am-5pm (and bank holidays).

Key Information on the Medicine

Please refer to the current edition of the British National Formulary (BNF), available at www.bnf.org, and Summary of Product Characteristics (SPC), available at www.medicines.org.uk for detailed product and prescribing information and specific guidance.

Background to disease and use of drug for the given indication

Rheumatology

Ciclosporin is used infrequently in the management of various inflammatory rheumatic conditions. It is generally used as monotherapy or in combination with glucocorticoids. It is rarely used in combination with other DMARDs.

Helpful information on DMARDs can be found in the 2017 British Society for Rheumatology *Guideline for the prescription and monitoring of non-biologic Disease-Modifying Anti-Rheumatic Drugs***.**
Link: https://www.rheumatology.org.uk/practice-quality/guidelines

Dermatology

Ciclosporin is licensed for treatment of psoriasis and atopic dermatitis and is used off label for treatment of a wide range of autoimmune and inflammatory skin conditions. Ciclosporin has a narrow therapeutic index and is therefore reserved for severe disease and short term use. Short term or intermittent courses limit the risk of nephrotoxicity and hypertension. Whenever possible treatment courses should last no longer than 6 months although longer courses may be required for some patients.

Ciclosporin is included as a prescribing note for treatment of psoriasis and eczema in Lothian Joint Formulary

Helpful information on ciclosporin can be found in the *British Association of Dermatologists guidelines for the safe and effective prescribing of ciclosporin in dermatology 2018.*
Link: http://www.bad.org.uk/healthcare-professionals/clinical-standards/clinical-guidelines

Dosage and administration

Ciclosporin should be prescribed as a specific brand and preparation. The generic brand routinely used in the specialist services is Capimune®. It is good practice to maintain patients on the specified brand unless a change is requested by the specialist.

Rheumatology

First 6 weeks: 2.5mg/kg/day, orally in two divided doses, and then may be increased by 25mg per day at intervals of 2-4 weeks until clinically effective or maximum dose (4mg/kg/day) reached.

Dermatology

Initial dose: 2.5mg/kg/day orally in two divided doses; patients with very severe disease may be started on a dose of 5mg/kg/day in two divided doses. The recommended dosage range for dermatological conditions is 2.5 to 5mg/kg/day.

A dose of less than 2.5 mg/kg/day may be useful as part of maintenance regimen but is not generally sufficient to achieve initial control in severe disease.

After starting ciclosporin the patient will be reviewed by the specialist team after 2-3 months and initial dose may be adjusted by them. Patients will generally be reviewed at 2-6 monthly intervals by the specialist team during treatment courses. If, after 3 months at maximum permitted or tolerable dose the response is inadequate, treatment will be discontinued.

Monitoring

On initiation of treatment, patients are provided with pre-labelled bags for blood tests. Bloods are taken in primary care and reported to the specialist service during the first 6 weeks of treatment.

Note that abnormal trends in blood monitoring should prompt extra vigilance and may be a sign of toxicity even if absolute levels are normal.

Test	Frequency	Abnormal Result	Action if Abnormal Result
FBC	Every 2 weeks until on a stable dose for 8 weeks, then monthly. Patients who have been stable for 12 months can be considered for reduced frequency of monitoring on an individual basis. Revert to initial schedule on an event of dose increase.	Platelets 100 – 140 WCC 2.0 – 3.5 Neutrophils 1.0 – 1.6	Withhold therapy for 2 weeks and re-check. If normal recommence at lower dose.
LFTs		Platelets < 100 WCC < 2.0 Neutrophils < 1.0	Withhold treatment and contact specialist service.
Creatinine		ALT > 100	Withhold therapy for 2 weeks and re-check. If ALT < 100 recommence at lower dose.
		ALT 50 – 100	Continue treatment and re-check. If ALT stable continue treatment. If ALT rising contact specialist service.
		Creatinine – assessed from baseline values; note trend	If creatinine rise >30% above baseline repeat blood test in 2 weeks. If creatinine remains >30% above baseline reduce the dose by at least 1mg/kg daily for 1 month and repeat blood test. If creatinine rise is <30% above baseline continue ciclosporin at reduced dose. If still >30% above baseline withhold treatment and contact specialist team.
BP	Check at each visit.	As per NHS Lothian Hypertension Guidelines	Treat BP as per local guidelines. Calcium antagonists such as amlodipine are recommended (avoid verapamil and diltiazem). If BP cannot be controlled stop ciclosporin and contact specialist service.
Fasting Lipids	After first month of treatment and every 3 months thereafter. More frequently in those at higher risk (e.g. patients with diabetes or pre-existing hyperlipidaemia)	Clinically significant increased levels of cholesterol and serum triglycerides	Initial treatment should be restriction of dietary intake of cholesterol and saturated fat as many drug treatments interact with ciclosporin. Seek specialist advice if dietary measures are not sufficient.

Contraindications - Refer to current Summary of Product Characteristics (SPC): www.medicines.org.uk

Cautions - Refer to current Summary of Product Characteristics (SPC): www.medicines.org.uk

- Temporarily discontinue during a serious infection.

Adverse effects - Refer to current Summary of Product Characteristics (SPC): www.medicines.org.uk

Drug interactions - Refer to current Summary of Product Characteristics (SPC): www.medicines.org.uk

- Note in particular:
    - Interaction of ciclosporin with NSAIDs – both ciclosporin and NSAIDs can increase the risk of nephrotoxicity and hyperkalaemia.
    - Interaction of ciclosporin with statins – whilst ciclosporin interacts with all statins and is contraindicated with rosuvastatin, it may be used with a maximum daily dose of 10mg atorvastatin or 10mg simvastatin.

Pregnancy & Fertility

- Risk/benefit should be considered
- Ciclosporin is not known to be teratogenic but pregnancy should always be discussed with a specialist
- Limited evidence supports the use of ciclosporin in males in the period before conception
- Ciclosporin may pass into breast milk, therefore breastfeeding is not recommended.

Vaccinations

- Individuals who on immunosuppressant therapy should be given inactivated vaccines in accordance with national recommendations.
- It is recommended that patients with autoimmune inflammatory diseases on immunosuppressant therapy should be offered pneumococcal, COVID19 and influenza vaccination.
- Immunosuppressed patients who are 70 to 79 years of age should be offered the varicella-zoster vaccine, Shingrix, to help protect them against shingles. Shingrix is a non-live alternative to the live shingles vaccine, Zostavax.
- When considering suitability for live vaccines concurrent DMARD therapy should also be taken into account. · For further information see: https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

The presence of this SCA does not compel a primary care prescriber to prescribe if they feel that it is out with the scope of their competencies (as per GMC guidance on safe prescribing) or resources, as ultimate responsibility lies with the prescribing, not the recommending, clinician.

Approved for use by the General Practice Prescribing Committee December 2022