DERBYSHIRE JOINT AREA PRESCRIBING COMMITTEE
SHARED CARE AGREEMENT

Ciclosporin for patients 16+ years

1. REFERRAL CRITERIA

- Shared Care is only appropriate if it provides the optimum solution for the patient.
- Prescribing responsibility will only be transferred when it is agreed by the consultant and the patient's GP.
- Safe prescribing must be accompanied by effective monitoring
- Patients will only be referred to the GP once the GP has agreed in each individual case.
- Patients will only be transferred over to GP's following monthly monitoring
- When transfer agreed the patient will be given a supply of Ciclosporin sufficient for 4 weeks maintenance therapy.

2. AREAS OF RESPONSIBILITY

GP responsibilities	Consultant responsibilities
1. If NOT participating in shared care reply to the request from the consultant/specialist as soon as practicable (see appendix 1) **2.** Ensure compatibility with other concomitant medication. **3.** Prescribe the dose and formulation recommended. **4.** Perform monitoring tests as specified in section vii. **5.** Adjust the dose as advised by the specialist. **6.** Stop treatment on the advice of the specialist or immediately if any urgent need to stop treatment arises. **7.** Ensure the patient is offered an annual flu vaccination and a one off pneumococcal vaccination. Live vaccinations are not recommended – See section vi **8.** Report any adverse effects to the referring specialist and the MHRA yellow card scheme	**1.** Discuss the possible benefits and side effects of treatment with the patient. **2.** Perform baseline tests (as recommended in section vii) **3.** Provide results of baseline tests **4.** Prescribe Ciclosporin during titration and until medication monitoring is stable, following monthly monitoring for three months. **5.** To contact patient's GP to request prescribing under shared care and send a link to or copy of the shared care protocol. **6.** Recommend dose of the drug and frequency of monitoring. **7.** Annually review the patient and advise the GP promptly on when to adjust the dose, stop treatment or consult with the specialist. **8.** Ensure that clear backup arrangements exist for GPs to obtain advice and support. **9.** Report any adverse effects to the MHRA yellow card scheme and GP **10.** Advise on the suitability for herpes zoster vaccination in accordance with national screening programme **11.** Communicate any dose increase to the GP and transfer monitoring to GP when 3 monthly monitoring is required

Patient responsibilities

- Report to the specialist or GP if there is not a clear understanding of the treatment and share any concerns in relation to treatment.
- Inform specialist or GP of any other medication being taken including over-the-counter products.
- Report any adverse effects or warning symptoms to the specialist or GP whilst taking the drug. See table in section vii for information.

3. COMMUNICATION AND SUPPORT

i. Hospital contacts:	ii. Out of hours contacts and procedures:
Chesterfield Royal Hospital NHS Foundation Trust Contact the referring consultant/nurse via switchboard: 01246 277271 **Derby Teaching Hospitals NHS Foundation Trust** **Rheumatology** Rheumatology helpline: 01332 787710 **Gastroenterology** IBD helpline: 01332 785504 Consultant/specialist nurse via switchboard: 01332 340131 **Renal** Specialist Pharmacist: 07500 976569 If unable to contact the specialist renal pharmacist consultants secretaries can be contacted: 01332 789344 **Dermatology** Consultant/specialist nurse via switchboard: 01332 265500 **Respiratory** Consultant via switchboard: 01332 340131	Contact the on-call Medic for the relevant speciality via switchboard: 01246 277271 Pharmacy, DTHFT, ask for on-call pharmacist via switchboard: 01332 340131

iii. Specialist support/resources available to GP including patient information:
Rheumatology
British Society of Rheumatology Specialist website: http://www.rheumatology.org.uk/
Arthritis Research Campaign Patient Information website: http://www.arthritisresearchuk.org/arthritis-information.aspx

4. CLINICAL INFORMATION

i. Prescribed indications	**Licensed** Rheumatoid arthritis Psoriasis Organ transplantation Nephrotic syndrome Atopic Dermatitis	**Unlicensed** Inflammatory Bowel Disease (For patients less than 75 years) Scleroderma Systemic lupus erythematosus Autoimmune hepatitis
ii. Therapeutic summary	Ciclosporin blocks the amplification of certain T Cell immune responses and suppresses IL-2 synthesis and release. Time to response: three months. If NO clinical response at maximum tolerated dose for 3 months, then withdraw treatment.	
iii. Dose & Route of administration	**Organ transplantation** Initially 6.5mg/kg every 12 hours then reduced to maintenance therapy of 2-6mg/kg daily in divided doses **Nephrotic syndrome** 5 mg/kg in 2 divided oral doses. Then adjusted according to ciclosporin levels **Rheumatoid arthritis** 2.5mg/kg daily in 2 divided doses, increased if necessary up to 4mg/kg daily after 6 weeks. **Psoriasis** 1.25mg/kg twice daily (max. per dose 2.5mg/kg twice daily), increased gradually to maximum if no improvement within 1 month, initial dose of 2.5mg/kg twice daily justified if condition requires rapid improvement. **Atopic Dermatitis** The recommended dose range is 2.5 to 5 mg/kg/day given in 2 divided oral doses. If this does not achieve a satisfactory response within 2 weeks, the daily dose may be increased to a maximum of 5 mg/kg. For other indication see BNF or as per specialist advice Doses outside the recommended range may be considered with prior agreement with the specialist team and GP involved. Lower doses should be considered for frail elderly and patients with renal impairment. NB Ciclosporin should be prescribed by brand (to avoid variation in bioavailability) and patients kept on the same brand unless Consultant decides to change.	
iv. Duration of treatment	**Rheumatology** – long term if benefits outweigh costs. **Dermatology** **Psoriasis** – maximum treatment usually 1 year unless other treatments cannot be used.	

	Atopic Dermatitis - Although an 8-week course of therapy may be sufficient to achieve clearing, up to 12-18months* of therapy has been shown to be effective and well tolerated, provided the monitoring guidelines are followed *local consultant variation from SPC **Renal/GI/Liver** Indefinite but may be withdrawn after a prolonged period of disease remission in selected cases
v. Adverse effects	Anorexia GI disorders – nausea, diarrhoea and vomiting Gum hypertrophy Hirsutism Hyperlipidaemia Hypertension Leucopenia Renal dysfunction Tremor, headache and paraesthesia
vi. Immunisation	• **Live vaccinations** are not recommended in patients on immunosuppression. JCVI Green book addresses this, recommending that low dose corticosteroids (prednisolone <20mg daily) and oral DMARD therapy at standard doses are not a contraindication in most patients, although clinician discretion is advised. • Annual flu vaccination is recommended • One off Pneumococcal vaccination recommended
vii. Monitoring Requirements	Best practice recommends the following precautions for specialists before commencing immunosuppressant therapy: Record blood pressure, and height and weight (if clinically indicating) Screening for lung disease should be undertaken at clinician discretion on a case-by-case basis. The extent of screening should be influenced more by a patient's clinical features and risk factors for lung disease (e.g. underlying autoimmune disease or smoking history) rather than subsequent immunomodulating choice. Pre-existing lung disease should not be considered an absolute contraindication to any imunomodulating medication. Glucose monitoring – HBA1C Screen for viral hepatitis B&C and HIV in patients at increased risk of infection Investigate patient medical history including co-morbidities and previous immunomodulating medication use. For rheumatology patients CRP/ESR may be done every 3 months (this is not done for dermatology patients). These tests are part of the assessment of the underlying rheumatic disease rather than a requirement for monitoring of immunomodulating therapy. The monitoring CRP/ESR may be coordinated between secondary and primary care on an individual basis. **Consultant/specialist monitoring schedule** Ciclosporin levels, where appropriate remain under the hospitals responsibility, usually between 50mg-100mg Baseline and 2 weekly until on a stable dose for at least 6 weeks • FBC • ALT and albumin • Creatinine/calculated GFR • U&E • Blood pressure • Glucose monitoring – HBA1C (only 1 test required during titration and 3 month period) **GP responsibility monitoring schedule** In patients following the 6 weeks of dose stability, conduct monthly monitoring thereafter for duration of treatment • FBC • ALT and albumin • Creatinine/calculated GFR • U&E • Blood pressure • Glucose monitoring – HBA1C (3 monthly)

Patients who have been stable for 12 months can be considered for reduced frequency of monitoring on an individual patient basis. Monthly monitoring has been locally agreed. Longer interval monitoring is by exception liaising directly with consultant

Actions to be taken

1. Immunosuppressants prescribed to prevent transplant rejection **should not be** stopped without discussion with a member of the specialist team.
2. In addition to responding to absolute values in laboratory tests, it is also relevant to **observe trends in results** (e.g gradual decreases in white blood cells (WBC) or albumin, or increasing liver enzymes)
3. Parameters below are to be used as a guide for clinicians rather than absolute values, where monitoring should be based on individualized basis. It is important to consider alternative explanations other than the immunomodulation agents, especially in patients who have been stable for prolonged periods

WBC <3.5 x10^9 /1	Contact Specialist **urgently** and consider interruption*
Neutrophils <1.6 x 10^9/l	Contact Specialist **urgently** and consider interruption*
Platelets <140 x 10^9/l	Contact Specialist **urgently** and consider interruption*
ALT and/or AST >100 U/l	Contact Specialist **urgently** and consider interruption*
Unexplained fall in albumin <30g/l	Contact Specialist **urgently** and consider interruption*
Mean cell volume >105 f/l	Withhold and check **serum B12, folate & TFT** and discuss with specialist team.
Creatinine increase for example >30% over 12 months and/or calculated GFR <60ml/min/1.73m²	Contact Specialist **urgently** and consider interruption*
Drug specific	
Abnormal bruising	Immediate FBC & withhold until the result is available.
CRP/ESR	*Measured to allow disease activity evaluation*
Blood Pressure ≥140/90mmHg on two consecutive occasions two weeks apart	Treat hypertension before stopping the ciclosporin. If BP cannot be controlled, stop ciclosporin and obtain BP control before restarting. Also ***discuss with specialist team.***

*Treatment is not to be stopped if being prescribed for transplant related indications

Note: specific monitoring of eosinophil counts has been removed, as historically eosinophilia was an important marker for identifying toxicity from only gold therapy. This has been agreed with local specialists.

<u>Dosage increase</u>

For dose **<u>increase</u>**, monitor 2 weekly until stable for 6 weeks. Dose and monitoring to be agreed with consultant

- FBC
- ALT and albumin
- Creatinine/calculated GFR
- U&E
- Blood pressure
- Glucose monitoring - HBA1C

GP's to then continue monthly monitoring

When restarting treatment after an abnormality has been detected repeat bloods in 2 weeks and then monthly monitoring. Following this resume monitoring frequency to what it was prior to the abnormality.

viii. Clinically relevant drug interactions

For a full list of interactions please refer to the BNF

Ciclosporin interacts with a wide range of medicines; please refer to the BNF for details. Noted below are a few of the common interactions:-

- Calcium Channel Blockers
- Colchicine
- Lipid regulating drugs
- NSAID – diclofenac dose should be reduced by 50%
- Potassium sparing diuretics
- St Johns Wort
- Vitamin E

Herbal/Complimentary medications are not recommended when taking Ciclosporin due to interactions.

ix. Contraindications and cautions	**Contraindications** • Abnormal renal function • Malignancy • Uncontrolled hypertention • Pregnancy & breastfeeding: • Suspected serious infection (requiring IV antibiotics or hospitalization) treatment should be discontinued. **Cautions:** • Grapefruit Juice • Patients with poor respiratory reserve • Patients with clinically significant renal impairment from any cause • Localised or systemic infection including hepatitis B or C and a history of TB. • Appropriate to continue with therapy in patients with minor infections (EG. Uncomplicated urinary tract infections treated with a short course of antibiotics) seek advice from specialist • Unexplained anaemia and/or cytopenia associated with marrow failure. • Patients with deranged liver biochemistry or synthetic function • Patients with Chronic Kidney disease
x. Supply of ancillary equipment	Not applicable
xi. Supply, storage and reconstitution instructions	Not applicable
Prepared by **Reviewed by** **In consultation with**	The Shared Care Guidelines Group, Derby Hospitals, Chesterfield Royal Hospital Martin Shepherd, Head of Medicines Management Chesterfield Royal Hospital Derbyshire Medicines Management Clinical Effectiveness Team Derby Teaching Hospitals NHS Foundation Trust: Dr Austin, Consultant Hepatologist Dr Bleiker, Consultant Dermatologist Dr Ferguson, Consultant Dermatologist Dr Goddard, Consultant Gastroenterologist and Hepatologist Dr O'Reilly, Consulant Rheumatologist Dr Raj, Consultant Rheumatologist Dr Shum, Consultant Dermatologist Dr Badcock, Consultant Rhuematologist Dr Leung, Consultant Nephrology Chesterfield Royal Hospitals NHS Foundation Trust; Linda Longmore, Rheumatology Matron Karen Greenfield, Dermatology Nurse Practitioner The Derbyshire Medicines Management Shared Care and Guidelines Group

References

1. EMC Summary of Product Characteristics for Ciclosporin accessed online 21/03/2017
2. British National Formulary 72, September 2016
3. BSR and BHPR guideline for the prescription and monitoring of non-biologic disease-modifying anti-rheumatic drugs, The British Society for Rheumatology, February 2017
4. The Green book, Immunisation against infection disease, September 2014, accessed online 08/03/2017

Sample Transfer Letter

Hospital No: «HOSPITAL_NUMBER»
NHS No: «NHS_NUMBER»

{Insert date}

PRIVATE & CONFIDENTIAL
«GP_TITLE» «GP_INITIALS» «GP_SURNAME»
«GP_ADDRESS_1»
«GP_ADDRESS_2»
«GP_ADDRESS_3»
«GP_ADDRESS_4»
«GP_POSTCODE»

DERBYSHIRE JAPC SHARED CARE AGREEMENT LETTER

Dear «GP_TITLE» «GP_SURNAME»

«FORENAME_1» «SURNAME» «DATE_OF_BIRTH»
«CURRENT_ADDRESS_1» «CURRENT_ADDRESS_2» «CURRENT_ADDRESS_3»
«CURRENT_ADDRESS_4» «CURRENT_POSTCODE»

Your patient was seen on ***{Insert date}*** with a diagnosis of ***{Insert diagnosis}***. I have initiated the following medication ***{Insert drug name}*** and am writing to ask you to participate in the shared care for this patient.

This medication has been accepted as suitable for shared care by the Derbyshire Joint Area Prescribing Committee (JAPC). I agree to the secondary care responsibilities set out in the shared care agreement for this medication (available from www.derbyshiremedicinesmanagement.nhs.uk/clinical_guidelines/shared_care_guidelines). I am therefore requesting your agreement to share the care of this patient. Where preliminary tests are set out in the agreement I have carried these out and results are below.

Dose Regimen	Date ***{Insert medicine name}*** started	Date for GP to start prescribing ***{Insert medicine name}*** from
The baseline test results are (if applicable): **See overleaf for initiation criteria.**		

I confirm I have explained to the patient: the risks and benefits of treatment, the baseline tests conducted the need for monitoring, how monitoring will be arranged, and the roles of the consultant / nurse specialist, GP and the patient in shared care. I confirm the patient has understood and is satisfied with this shared care arrangement at this time.

If you do **NOT** wish to participate in shared care for this patient, usually under clinical grounds, please complete the attached form.

Yours sincerely

{Consultant name}

GP RESPONSE TO SHARED CARE (only complete & send if **NOT** participating in shared care)

Shared care is produced by GPs and specialists knowledgeable in the field of that drug usage. The shared care has been approved by the JAPC. This allows a more convenient service to the patient and cost effective use of NHS resources.

Patient:	NHS No:
Consultant:	Medicine requested for shared care:

I will **NOT** be undertaking the GP responsibilities as described in the agreed shared care guideline. My clinical reasons for declining shared care for this patient are listed in the box below:

Yours sincerely

{GP name}
{Surgery}

Please send a copy of this response to:

1. The specialist/consultant requesting shared care
2. **AN ANONYMISED COPY OF THIS FORM ONLY** to the Medicines Management Clinical Effectiveness Team, 1st Floor East Point, Cardinal Square, 10 Nottingham Road, Derby, DE1 3QT or E-MAIL: sderccg.derbyshiremedicinesmanagement@nhs.net

(Sending a copy of this form to the Clinical Effectiveness Team will help to identify any inappropriate requests for shared care e.g. indication not covered, hospital monitoring requirements not fulfilled. It will also help to inform the CCG prescribing group of the reasons shared care is not being undertaken allowing for changes to be made in future updates to improve patient care).