

Ciclosporin
Oxfordshire and Berkshire Region Rheumatology Guidelines

To be read in conjunction with the shared care agreement between Oxfordshire and Berkshire Primary Care Trusts and relevant rheumatology departments

Background for use

Ciclosporin is a disease modifying anti rheumatic drug and potent immunosuppressant used in rheumatoid arthritis and other types of connective tissue diseases.

Ciclosporin must be prescribed as Neoral. This formulation allows greater predictability and consistency than other preparations.

Ciclosporin should only be initiated on the recommendation of a Rheumatologist.

Dosage

Initially 2.5 mg/kg/day in two divided doses for 6 weeks. Increase at 2-4 week intervals until clinically effective or maximum dose of 4mg /kg /day is reached.

Ciclosporin may need to be given for up to 3 months before therapeutic benefit is seen. If no clinical response at maximum tolerated dose for 3 months withdraw treatment.

Pre treatment assessment

- FBC including differential WCC, U&E's, creatinine (check twice 2 weeks apart, to obtain mean value for creatinine) LFT's, fasting Lipids, Creatinine clearance prior to starting the drug.
- Check blood pressure; must be <140/90 before treatment on 2 occasions 2 weeks apart. If >140/90 treat hypertension before commencement.

In patients with psoriatic arthritis: check for previous treatment with PUVA and discuss with dermatologist.

Monitoring

- U&E's , FBC, ESR, CRP, Blood pressure and urinalysis every 2 weeks for 3 months; thereafter monthly
- Monthly LFT's, especially if on concomitant NSAID's
- Lipids every 6 months

A S Zakari / M Cox / Verified by Dr Paul Bowness / WPH Rheumatology Team /
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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.

Side effects	Action
WBC < 3.5 X 10 ⁹ /l Neutrophils < 2 X10 ⁹ /l	Withhold repeat WBC, if normal continue, otherwise discuss with specialist team.
Platelets <150 X10 ⁹ /l	Withhold until discussed with specialist team.
Liver function. >2 fold rise in ALT from upper limit of reference range	Withhold. Look for alternative cause, repeat LFT's, if abnormal discuss with specialist team.
Hyperkalaemia	Particularly in patients with renal impairment, with- hold until discussed with specialist team.
Significant rise in lipids	Withhold until discussed with specialist team.
Rise in serum Creatinine NSAID's	If serum creatinine rises > 30% above baseline on more than one occasion, withhold and discuss with specialist team. May adversely affect renal function when in combination with Ciclosporin, especially diclofenac
Hypertension B/P >140/90 on 2 consecutive readings 2 weeks apart	If hypertension is not controlled by anti hypertensive Ciclosporin should be stopped. Discuss with specialist team.
Gastro-intestinal disturbances	Abdominal pain, anorexia, nausea, vomiting, diarrhoea; should be managed symptomatically
Abnormal Bruising	Check FBC immediately. Withhold until discussed with specialist team.
Abnormal sensations / neuropathies	A burning sensation may be experienced in the hands and feet in the first 1-2 weeks of therapy. This is transient.
Rare side effects include; Gingival hypertrophy Hypertrichosis Myalgia/muscle cramps	Discuss with specialist team.

- Pnuemovax and annual flu vaccinations are recommended.

Contraindications and Precautions

Immunization with LIVE vaccines	Patients receiving ciclosporin must NOT receive immunization with LIVE vaccines. Inactivated polio is available although sub-optimal response may be seen.
Chicken pox /Shingles	Patients suffering from chickenpox or active skin lesions in shingles withhold ciclosporin and inform specialist team. Exposure to chickenpox or shingles passive immunization should be carried out using VZIG
Pregnancy and breast feeding	Effective contraception is advised. Limited data is available. Women should not become pregnant. Men should not take ciclosporin unless the potential benefit out ways the possible risks to the foetus. Breast feeding should be avoided.
Grapefruit juice	Increases plasma concentrations of ciclosporin (toxicity). Avoid for 1 hour prior to taking ciclosporin

Notable Drug Interactions (refer to BNF and SPC)

- Diclofenac: reduce the dose of diclofenac by 50%
- Colchicine: to be avoided
- Simvastatin: max. dose 10mg/day
- Nifedipine: use with caution
- Digoxin: may increase the serum levels of digoxin
- St John's Wort: decreases ciclosporin activity
- NSAIDs may be continued

Contact Telephone Numbers

Heatherwood and Wexham Park Hospital	01753 633000 Bleep Rheumatology registrar
Clinical Nurse Specialists in Rheumatology	Wexham Park 01753 633166