



## **CICLOSPORIN**

### **What are the aims of this leaflet?**

This leaflet has been written to help you understand more about ciclosporin. It tells you what it is, how it works, how it is used to treat skin conditions, and where you can find out more about it.

### **What is ciclosporin and how does it work?**

Like penicillin, ciclosporin was discovered as a substance produced by a fungus. Ciclosporin was found to suppress the immune system and was initially developed for suppressing the immune system of transplant patients to prevent them rejecting their transplanted organs. It was subsequently found to benefit patients with a range of diseases caused by immune reactions.

### **Why suppress the immune system?**

There are several reasons:

- In auto-immune diseases, the immune system attacks the body itself. These diseases can affect just one organ - such as the heart, liver or skin - or a number of organs.
- There are also diseases in which the body's immune system becomes overactive, letting a disease persist or even get worse. Suppressing the immune system can then be helpful.
- After transplant surgery, the immune system has to be suppressed to stop the transplanted organ being rejected. Most patients who have had a kidney or heart transplant take ciclosporin as part of the combination of drugs used to suppress their immune system.

## **Which skin conditions are treated with ciclosporin?**

Ciclosporin is prescribed for conditions in which the immune system is too active. Currently it is only licensed to treat psoriasis and atopic eczema. However, some drugs may be safely used for other skin conditions providing this is under the medical supervision. In the case of ciclosporin, these include other types of eczema, bullous pemphigoid, hidradenitis suppurativa, lichen planus, pyoderma gangrenosum, urticaria and vasculitis (see related BAD Patient Information Leaflets).

## **Will ciclosporin cure my skin condition?**

None of the skin conditions for which ciclosporin is used are 'cured' by this treatment. Usually a gradual improvement is seen, starting in the first weeks of treatment, and then ciclosporin treatment will be continued, if necessary, to keep the skin problem under control.

## **What dose should I take?**

Your doctor will advise you here, as the dose prescribed depends partly on your body weight. The total dose is usually within the range of 2-5 mg for every kg of body weight per day.

Grapefruit or grapefruit juice should not be taken for one hour before or after the dose of ciclosporin as it may reduce the absorption of the drug.

Please note that different brands of ciclosporin might be absorbed by the body differently, so it is recommended to always use the same medication. If you change medication however, then it is possible that you will need to have a ciclosporin level blood test performed.

## **What are the possible side effects of ciclosporin?**

The long-term (over several months or years) side effects of ciclosporin include reduced function of the kidneys and raised blood pressure. Kidney function can be measured using a blood test. The dose of ciclosporin has to be reduced or stopped if there is a rise in blood pressure or effects on the kidneys. Provided the treatment is monitored and appropriate adjustments are made, these side effects are reversible. Ciclosporin can also cause increased levels of lipids (for example cholesterol) in the blood.

The functions of the immune system include protection from infections and cancers. Taking ciclosporin may therefore reduce your resistance to serious

infections (e.g. tuberculosis or hepatitis). Minor infections, such as colds, are probably not increased. If you have not had chicken pox, and you come into contact with someone who has chicken pox or shingles (which is also caused by the chicken pox virus), you should inform your doctor promptly as it may be necessary for you to be given an injection of immunoglobulin to protect you (see Patient Information Leaflet on [immunisation](#) for recommendations on adult patients taking immune-suppressing medicines).

In transplant patients who have taken ciclosporin with other drugs which also suppress the immune system there is an increased risk of many types of cancer. If you develop a cancer while taking ciclosporin this might grow faster as a result of the immunosuppression. This includes skin cancer, so patients on ciclosporin should avoid exposing their skin to the sun, and apply a sunscreen frequently (see PILs on Skin Cancers and Sun Protection). Skin cancer is a risk in patients who have received a lot of treatment with ultraviolet light, particularly those with psoriasis or who have exposed their skin to a lot of sun over the years. You should talk to your doctor about this if you are worried or have any concerns, and if any mole or area of skin changes colour or texture.

Less serious side effects of ciclosporin include sickness (nausea), diarrhoea, gum overgrowth, tiredness and excessive hair growth. It can also produce a mild tremor. Sometimes a burning sensation of the hands and feet occurs early in treatment.

The side effects of ciclosporin tend to get better if the dose is reduced, and resolve completely with cessation of ciclosporin.

### **How will I be monitored for the side effects of ciclosporin treatment?**

As ciclosporin can affect the kidneys and blood pressure, your doctor will arrange for you to have regular tests of your blood, and checks on your blood pressure. These tests will be carried out frequently at first and less often once the dose is stable. You may be asked to keep a record booklet with your test results. Take this with you when you visit your General Practitioner or go to hospital.

You must not take ciclosporin unless you are having regular checks.

### **Does ciclosporin affect fertility or pregnancy?**

It is not recommended to take ciclosporin when pregnant, but your doctor will discuss your options. If you are planning a family, or if you become pregnant

while taking ciclosporin, you should discuss this with your doctor as soon as possible. You should not breast feed while taking ciclosporin.

### **May I drink alcohol while taking ciclosporin?**

There is no particular reason for you to avoid alcohol while taking ciclosporin.

### **Can I take other medicines at the same time as ciclosporin?**

Ciclosporin may be prescribed in combination with other drugs. However, many other drugs interact with it and you should always tell all doctors and medical professionals treating you that you are taking ciclosporin. You should not take over-the-counter drugs or dietary supplements such as St John's wort, without discussing this first with your doctor or pharmacist.

Drugs that may interact with ciclosporin include:

- *Aspirin and non-steroidal anti-inflammatory drugs (NSAIDs):* e.g. ibuprofen and diclofenac.
- *Antibiotics:* erythromycin, clarithromycin, trimethoprim, ciprofloxacin, rifampicin and doxycycline.
- *Antifungals:* fluconazole, itraconazole, ketoconazole and amphotericin B.
- *Treatment for seizures:* phenytoin and carbamazepine.
- *Blood pressure treatments:* ACE inhibitors, beta-blockers and calcium channel blockers.
- Digoxin.

This is not an exhaustive list and many drugs can be safely taken with ciclosporin, but it is important that you always inform your doctor and pharmacist that you are taking ciclosporin.

### **Can I have immunisation injections while on ciclosporin?**

You should avoid live immunisations such as Yellow Fever injections or polio drops. Most flu vaccines and Pneumovax are safe and recommended.

### **Where can I get more information about ciclosporin?**

If you would like any further information about ciclosporin, or if you have any concerns about your treatment, you should discuss this with your doctor or pharmacist. This information sheet does not list all the side effects this drug can cause. For full details, please see the drug information leaflet that comes with your medicine. Your doctor will assess your medical circumstances and

draw your attention to side effects that may be relevant in your particular case.

### **The BAD Biologic Interventions Register (BADBIR)**

If you have been prescribed ciclosporin for treatment of your psoriasis, you may be asked to take part in the national biologics register. This register is to compare the safety of different treatments for psoriasis and to see how well they work. It was set up to monitor some new treatments for psoriasis called biological treatments. The register will give doctors information on how best to use the treatments available for moderate to severe psoriasis. No information will be passed to the register without your informed consent.

#### **References:**

British Association of Dermatologists' guidelines for the safe and effective prescribing of ciclosporin (in development)

BAD Patient Information Leaflet on Immunisation:

<http://www.bad.org.uk/site/881/default.aspx>

A full list of Patient Support Groups is available at the BAD website:

<http://www.bad.org.uk/site/575/default.aspx>

For details of source materials used please contact the Clinical Standards Unit ([clinicalstandards@bad.org.uk](mailto:clinicalstandards@bad.org.uk)).

**This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: its contents, however, may occasionally differ from the advice given to you by your doctor.**

*This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel*

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