

Information about  
**Cyclophosphamide for  
Treating Kidney Disease**



Renal Day Ward (4C)  
Queen Elizabeth University Hospital  
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**Cyclophosphamide** is being used to help treat your kidney disease. Many patients have been given cyclophosphamide, but like all drugs it has some side effects. This leaflet should help you understand what cyclophosphamide is and what to expect from treatment.

## **Why am I being prescribed cyclophosphamide?**

Cyclophosphamide is licensed to treat a wide range of diseases including vasculitis. It can be given as a daily tablet or intravenously (via a drip in your arm or hand). For vasculitis, intravenous cyclophosphamide is, usually, preferred because this allows a reduced dose to be given compared with the oral treatment (tablets). The intravenous dosing is just as effective as tablets but has a lower chance of side effects. For other conditions, for example membranous nephropathy, evidence supports oral treatment. Your kidney doctor will advise which is best in your particular circumstances.

## **How does cyclophosphamide work?**

Cyclophosphamide works by “dampening down” the over-active immune system.

## **When and how do I receive Intravenous cyclophosphamide?**

We will give you cyclophosphamide by intravenous infusion (via a drip). You will attend the Renal Day Ward (4C) at the Queen Elizabeth University Hospital for the infusions.

The dose of cyclophosphamide is calculated taking into account your age, weight and kidney function.

You should drink plenty of water throughout the day before and after the treatment. You will need to empty your bladder (go for a wee) more often to avoid bladder irritation or soreness. Cyclophosphamide is usually given every 2 or 3 weeks until the disease is under control, usually for a total duration of 3 months. In some cases, we may give you cyclophosphamide for longer or may only give you two doses. This depends upon your specific circumstances and your other treatments.

## **When and how do I receive oral cyclophosphamide (tablets)**

Cyclophosphamide is available in 50mg tablets only. This means you may need to take multiple tablets to make up the right dose. Cyclophosphamide is supplied by the hospital and on discharge from hospital we will provide you with a supply and information regarding how to collect future prescriptions.

You should take cyclophosphamide once every day. You should swallow the tablets whole with a glass of water; however, you can take smaller amounts of water if you are on fluid restriction.

**You must wash your hands after touching the tablets.**

**You should never crush, chew or half the tablets.** The duration of your treatment will depend on how you respond and we will monitor this regularly at your clinic visits.

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

As with all medications, side effects are possible but will not affect everyone.

**Sickness:** The most common side effect is feeling sick and sometimes being sick. This may start 2-3 hours after treatment and last for up to 24 hours. We can give you anti-sickness medication to take if you need it.

**Infections:** Your immune system does not work so well with cyclophosphamide so you are more likely to get infections. This effect may show 7 days after treatment, with your resistance to infection usually reaching its lowest point after 10-14 days. Whilst having cyclophosphamide treatment, you should tell us if you have any symptoms, such as high temperature (fever), cough, sore throat, pain on passing urine, or feeling generally unwell. It is important to be vigilant and if you are concerned, it is better to contact us than to wait.

**You should never ignore any signs of illness.**

To prevent a specific serious chest infection, we may give you prophylactic treatment with an antibiotic (co-trimoxazole) to take for at least 6 months. We may also give you an antifungal mouthwash (nystatin), which helps to prevent infections occurring in your mouth. You can stop the mouthwash one week after your last cyclophosphamide infusion.

**Irritation of the bladder:** This is why it is important to drink lots of fluid and empty your bladder often. We will tell you how much to drink 24 hours before the start of treatment and the day after treatment. Tell the doctor if you find it painful or difficult when passing urine after having your treatment. You should also let the doctor know if there is blood in your urine. In some circumstances (usually with the intravenous form of cyclophosphamide) we may prescribe a medication called mesna which helps to prevent bladder irritation.

**Bone marrow suppression:** The bone marrow (the spongy part in the middle of bones) makes blood cells. These cells fight infections and also carry oxygen round our body. Cyclophosphamide can stop the bone marrow making these cells. You may become anaemic, which may make you feel breathless and tired. Tell your doctor if you notice any unusual bruising or bleeding, such as nosebleeds, blood spots or rashes on the skin, or bleeding gums. It is very important that you have regular blood tests. and attend when asked.

**Liver:** Cyclophosphamide can affect the way that your liver works. This usually goes back to normal when your treatment is finished. This is very unlikely to cause you any harm, but we will check this carefully by taking blood tests.

**Less common side effects:** You may have headaches. Your hair may get thinner, but this is rare and usually your hair will start to grow again within a few weeks at the end of treatment.

**Allergic reactions during treatment:** These could be flushing; feeling wheezy and your face may swell; your blood pressure may drop and your heart may feel like it is racing. A doctor will be available during your treatment should you develop any of these symptoms and we can slow down the drip to stop these feelings.

**Cancer risk:** After taking the drug for many years, there is a very small risk of developing cancer, however, giving the drug intravenously greatly reduces this risk as it is a smaller dose.

## **Can I drink alcohol while taking cyclophosphamide?**

Follow the recommended safe limits for alcohol of no more than one or two units a day.

## **What if I am thinking of having a baby?**

Cyclophosphamide is known to be damaging to an unborn child and **must not** be given during pregnancy. Pregnancy is not recommended for 12 months after finishing treatment, and you must use some form of contraception to prevent this. Men should use contraception for 12 months after finishing a course of cyclophosphamide.

## **What about breastfeeding?**

Cyclophosphamide can be passed via human breast milk. Therefore, you should not breastfeed whilst receiving cyclophosphamide.

## **Effects on fertility**

Women treated with cyclophosphamide may develop infertility and an early menopause, and this risk increases with increasing age and total treatment dose. Generally, patients older than 30-35 years are more likely to develop an early menopause than younger patients. Menstruation (period) usually returns within one year of stopping treatment.

In men, a reduced sperm count develops in relation to the total dose of cyclophosphamide. In other words, the more cyclophosphamide you have the more likely you are to have a low sperm count. In many cases this is reversible within one year of completion of the treatment. Occasionally, however, particularly after high doses of cyclophosphamide, sterility is permanent. As a result, you may want to consider sperm banking before treatment and we can arrange this for you. If you conceive during treatment this may result in some foetal (baby in the womb) abnormalities. Therefore, males are advised to take contraceptive precautions throughout treatment and for 12 months after.

## **Vaccinations**

You should not have live vaccinations like yellow fever and the shingles vaccine whilst taking cyclophosphamide and for 6 months after. For more advice about vaccines, please speak to your kidney team. Tell your doctor that you have had cyclophosphamide before you receive any vaccinations.

## **Further information:**

If you have any questions please ask the staff.

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