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**KEEP ALL MEDICINE OUT OF THE SIGHT AND REACH OF CHILDREN**

## CTD

### What is CTD

CTD is the name of a combination of chemotherapy drugs used to treat myeloma. It is made up of the drugs

- Cyclophosphamide
- Thalidomide
- Dexamethasone, a steroid

### How you have treatment

- You usually have CTD chemotherapy as cycles of treatment. Each cycle of treatment lasts either 3 or 4 weeks. Depending on your needs you may have up to 6 cycles. So the course lasts about 6 months in total.
- You take all of the drugs as tablets or capsules or have an intravenous infusion (drip). Day 1 is the first day of a cycle of treatment.
- 3 weekly cycle
  - Cyclophosphamide – you take this once a day on days 1, 8 and 15 and swallow the tablets whole, ideally on an empty stomach. Or have an infusion weekly of about 1 ½ hr.
  - Thalidomide – you take this once a day for the whole three week cycle. Take the tablets with a glass of water, at night. Your doctor may tell you to increase the dose after a while if the side effects are mild.
  - Dexamethasone – you take the tablets once a day from days 1 to 4 and days 12 to 15. Take them after a meal, or with milk, because they can inflame your stomach lining. Taking them early in the day can reduce the side effects. Or have weekly infusion of about 1 ½ hr.
  - On day 21, you have completed one cycle of your treatment. You start the next cycle on the following day.
- 4 weekly cycle
  - Cyclophosphamide – you take this on days 1,8,15 and 22 and swallow the tablets whole, ideally on an empty stomach / Or have weekly infusion of about 1 ½ hr.
  - Thalidomide – you take this once a day for the 4 week cycle. Take the tablets with a glass of water, at night. Your doctor may tell you to increase the dose after a while if the side effects are mild.
  - Dexamethasone – you take the tablets once a day on days 1 to 4 and days 15 to 18. Take them after a meal, or with milk, because they can inflame your stomach lining. Taking them early in the day can reduce the side effects Or have weekly infusion of about 1 ½ hr.
- On day 28 you have completed one cycle of treatment. You then start the next cycle on the following day.
- It is very important that you take tablets according to the instructions your doctor or pharmacist gave you. You should take the right dose, not more or less. And never stop taking a cancer drug without talking to your specialist first.



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- The side effects of a combination of drugs are usually a mixture of those of each drug. The combination may increase or decrease your chance of getting each side effect or it may change the severity.

### **Common side effects**

More than 10 in every 100 people have one or more of these effects.

- A temporary drop in the number of blood cells made by the bone marrow, leading to
- An increased risk of getting an infection from a drop in white blood cells – it is harder to fight infections and you can become very ill. You may have headaches, aching muscles, a cough, sore throat, pain passing urine, or feel cold and shivery
- **Contact your treatment center straight away if you have any of these effects or if your temperature goes above 38°C**
- Tiredness and breathlessness due to a drop in red blood cells (anaemia) – you may need a blood transfusion
- Bruising more easily due to a drop in platelets – you may have nosebleeds, bleeding gums after brushing your teeth, or lots of tiny red spots or bruises on your arms or legs (known as petechia)
- Some of these side effects can be life threatening, particularly infections. You should contact your treatment centre if you have any of these effects. Your doctor will check your blood counts regularly to see how well your bone marrow is working.
- Other common side effects include
- Numbness or tingling in fingers and toes in about 5 out of every 10 people (50%) – this starts within a few days or weeks and can cause difficulty with fiddly things such as doing up buttons. It usually goes within a few months of finishing treatment
- Constipation in about 5 out of 10 people (50%) – your doctor or nurse may give you laxatives to help prevent this but do tell them if you are constipated for more than 3 days
- Tiredness (fatigue) in about 2 in 10 people (20%) during and after treatment – most people find their energy levels are back to normal within 6 months to a year
- Feeling or being sick can usually be well controlled with anti sickness medicines
- Women may stop having periods (amenorrhoea) but this may be temporary
- Loss of fertility – we don't know exactly how these drugs affect fertility so do talk with your doctor before starting treatment if having a baby is important to you

### **Occasional side effects**

Between 1 and 10 in every 100 people have one or more of these effects.

- Blood clots occur in around 1 out of 10 people (10%) – if this happens you will have treatment to thin your blood, dissolve any clots and stop more developing. If you are at higher than normal risk of developing blood clots, your doctor will give you aspirin to prevent them when you start thalidomide treatment.
- Lower levels of thyroid hormones – this can cause a number of symptoms including feeling tired, weight gain, feeling the cold more easily, and feeling sad or depressed
- Hair thinning
- A sore mouth



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- Swelling of your legs due to fluid build up (known as peripheral oedema)
- A rash and dry skin
- Indigestion, stomach pains or discomfort
- A change in blood sugar levels – tell your doctor if you get very thirsty or if you are passing more urine than usual
- A puffy face and ankles due to fluid build up
- Increased appetite with possible weight gain
- Difficulty in sleeping
- Mood swings
- Drowsiness (somnolence)
- Dizziness

### **Importance of preventing pregnancy**

- Thalidomide can cause birth defects in children. So you must not become pregnant or father a child if you are taking this drug. Your doctor or nurse will talk to you about contraception before you have the treatment.
- Some people worry about taking thalidomide but it does not cause physical defects in adults.
- Because thalidomide causes birth defects, you have to sign a consent form and register with the company who make thalidomide. You do this before you start treatment. This is to make sure you understand the risks of taking thalidomide and agree to use contraception for a specified period of time. Your doctor, pharmacist or nurse will help you with this.
- Your doctor will give you a prescription for thalidomide for 4 weeks if you are a woman of child bearing age. After 4 weeks they give you another prescription. At the start of your treatment and with each new prescription, you have to contact the drug company and answer a confidential telephone questionnaire. Your doctor, pharmacist or nurse will tell you all about this.
- If you are a man or a woman of non child bearing age you can have a prescription for up to 3 months. Pregnant women should not touch or handle thalidomide. You must store it in a place where children cannot reach it.

### **Important points to remember**

Not everyone will get the side effects listed above. You may have 1 or 2 or several. A side effect may get worse through your course of treatment. Or you may have more side effects as the course goes on. This depends on

- How many times you've had a drug before
- Your general health
- How much of the drug you have (the dose)
- Other drugs you are having



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**Coping with side effects**

Talk to your doctor, pharmacist or nurse about all your side effects so that they can help you manage them. They can give you advice or reassure you. Your nurse will give you a contact number to ring if you have any questions or problems. If in doubt, call them.

**Other medicines**

Tell your doctor about any other medicines you are taking, including vitamins, herbal supplements, and over the counter remedies – some drugs can react together.

**Medical and dental treatment**

If you need to go into hospital for any reason other than cancer, always tell the doctors and nurses that you are having chemotherapy. Give them contact details for your cancer doctor.

Talk to your cancer doctor or nurse if you think you need dental treatment. Always tell your dentist you are having chemotherapy.

**Immunisations and chemotherapy**

- You should not have immunisations with live vaccines while you are having chemotherapy or for at least 6 months afterwards. These include rubella, mumps, measles (usually given together as MMR), BCG, yellow fever and Zostavax (shingles vaccine).
- You can have other vaccines, but they may not give you as much protection as usual until your immune system has fully recovered from your chemotherapy. It is safe to have the flu vaccine.
- It is safe for you to be in contact with other people who've had live vaccines as injections. There can be problems with vaccines you take by mouth (oral vaccines), but not many people have these now.
- So there is usually no problem in being with any baby or child who has recently had any vaccination.
- You might need to make sure that you aren't in contact with anyone who has had oral polio, cholera or typhoid vaccination recently, particularly if you live abroad.