

## PHARMACY

### Drug Information

# VCD Regimen [Velcade® (Bortezomib), Cyclophosphamide, Dexamethasone]



### What is VCD Regimen [Velcade® (Bortezomib), Cyclophosphamide, Dexamethasone]?

- VCD regimen is used to treat multiple myeloma. It consists of an injection Velcade® (Bortezomib), an oral/injection chemotherapy drug Cyclophosphamide and an oral/injection steroid Dexamethasone.

### How is VCD Regimen Administered / Taken?

- Bortezomib is usually administered as an injection under the skin (subcutaneous) or into your vein (intravenous). Cyclophosphamide can be taken orally or injected intravenously on the days of Bortezomib injections. Dexamethasone also can be taken orally or injected intravenously on the days of Bortezomib injections.
- Cyclophosphamide oral tablet is taken preferably in the morning with or without food. Try not to touch the medication with your bare hands; use the medication cup provided to take your medication.
- Swallow Cyclophosphamide whole with a glass of water. Do not chew or crush the medications. Inform your doctor or pharmacist if you have difficulty swallowing.
- Your doctor will determine the frequency of your regimen.

### Can VCD Regimen be Administered / Taken With Other Medications?

- Please inform your doctor or pharmacist if you are taking other medications, including Traditional Chinese Medicines, Jamu medicines or supplements.

### What are the Important Side Effects of VCD Regimen?

- Medications prescribed by your doctor should be beneficial for your condition even though they may result in some inevitable side effects.

Side Effect	Management
Risk of infection can occur as Bortezomib and Cyclophosphamide can reduce the number of white blood cells in your blood	<ul style="list-style-type: none"> <li>To reduce risk of infection: <ul style="list-style-type: none"> <li>- Wash your hands after toileting.</li> <li>- Avoid crowds and people who are sick.</li> <li>- Avoid raw food.</li> </ul> </li> <li>Please proceed to the A&amp;E department immediately if you experience signs of infection such as fever with a temperature of 38°C and above, chills and shivering. Avoid taking Paracetamol (Panadol®) to relieve fever. Be aware that taking Paracetamol may mask fever and hence delay treatment of infection.</li> </ul>
Bruising or bleeding may occur as Bortezomib and Cyclophosphamide can reduce the number of platelets in your blood.	<ul style="list-style-type: none"> <li>To reduce risk of bleeding problems: <ul style="list-style-type: none"> <li>- Do not pick your nose.</li> <li>- Brush your teeth gently with a soft toothbrush.</li> <li>- Be aware that bleeding may take a longer time to stop.</li> </ul> </li> <li>Please proceed to the A&amp;E department immediately if you experience any severe bleeding (e.g. passing a large amount of fresh blood in urine or stools, or passing black sticky stools) or significant bruising.</li> </ul>
Nausea or vomiting	<ul style="list-style-type: none"> <li>Take small, frequent meals.</li> <li>Avoid smells that precipitate nausea.</li> <li>Take medications for nausea or vomiting prescribed by your doctor.</li> <li>Avoid tight-fitting clothes around the waist.</li> </ul>

Side Effect	Management
Diarrhoea	<ul style="list-style-type: none"> <li>Inform your doctor if this is severe and/or does not improve with the use of medication.</li> <li>Drink at least two litres (8 cups) of fluids every day when you are having diarrhoea.</li> <li>Avoid milk or dairy products and/or high fibre food whilst you are having diarrhoea.</li> </ul>
Numbness and tingling sensation in the hands or feet	<ul style="list-style-type: none"> <li>Inform your doctor if you have this symptom, trouble buttoning up shirts or if you are unable to pick up objects.</li> </ul>
Swelling, bruising, tenderness and redness of the skin at injection site	<ul style="list-style-type: none"> <li>Apply cool compress on the area or soak in cool water for 15-20 minutes several times a day.</li> <li>Inform your doctor if the symptoms do not subside.</li> </ul>
Muscle aches and joint pain	<ul style="list-style-type: none"> <li>Mild pain can be relieved by taking Paracetamol (Panadol®). Inform your doctor if pain is not controlled by Paracetamol. Avoid Paracetamol when you are having fever.</li> <li>Taking regular warm baths may also help.</li> </ul>
Fatigue or tiredness	<ul style="list-style-type: none"> <li>Do not drive or operate machinery if you are feeling tired. Inform your doctor if fatigue is persistent or worsens.</li> </ul>
Dizziness, light-headed or fainting spells	<ul style="list-style-type: none"> <li>These may be signs of low blood pressure. Inform your doctor if you are on any hypertensive medications and seek medical attention if you experience these symptoms.</li> </ul>

Side Effect	Management
Risk of reactivation of the chicken pox virus (Shingles)	<ul style="list-style-type: none"> <li>You will be prescribed anti-viral medication to reduce the risk of this happening.</li> </ul>
Bladder inflammation resulting in discomfort when passing urine or blood in urine	<ul style="list-style-type: none"> <li>Maintain adequate hydration with 2 to 3 litres (8 to 12 cups) of fluids per day unless informed by your doctor to restrict fluids.</li> </ul>
Hair Loss	<ul style="list-style-type: none"> <li>Wear a wig or hat or use a gentle shampoo.</li> </ul>
Stomach irritation	<ul style="list-style-type: none"> <li>Inform your doctor if you experience epigastric pain. Taking Dexamethasone after meals may reduce this side effect. Your doctor may prescribe some medications to reduce the incidence of this side effect.</li> </ul>
Weight gain	<ul style="list-style-type: none"> <li>Dexamethasone may increase your appetite and hence causes weight gain. Keep a healthy and balanced diet.</li> </ul>
Increase in blood sugar level	<ul style="list-style-type: none"> <li>You may need to check your sugar level regularly if you are diabetic as Dexamethasone may cause raised blood sugar levels.</li> </ul>
Insomnia	<ul style="list-style-type: none"> <li>Dexamethasone may cause insomnia. Inform your doctor if you experience difficulty sleeping.</li> </ul>
Changes in the way the liver works	<ul style="list-style-type: none"> <li>Please proceed to the A&amp;E department immediately if you experience any yellowing of eye and skin or tea-coloured urine, pale stools or severe abdominal pain.</li> </ul>
Risk of blood disorders/leukemia and secondary cancers	<ul style="list-style-type: none"> <li>Occurs very rarely. Please discuss with your physician if you have concerns.</li> </ul>

If you develop rashes, facial swelling or shortness of breath after taking the medication, you could be allergic to the medication. Please seek medical attention immediately.

### Are There any Special Precautions That I Need to Take?

- It is important to inform your doctor if you intend to conceive or breastfeed while taking this medication.
- You must not become pregnant during treatment with the VCD regimen and must use effective contraceptive measures during and up to 12 months after stopping treatment. If pregnancy occurs during your treatment, you must inform your doctor immediately.
- VCD regimen may have an anti-fertility effect, which could be irreversible. You should discuss with your doctor regarding fertility preservation prior to starting treatment.
- You should not breast-feed during treatment.

### What Else Can I do to Help My Condition?

- Exercise  
Light exercise is recommended as it helps to improve mobility, balance and even emotional well-being. Avoid strenuous exercise, and rest when you are feeling tired.
- Stay positive  
Understand your condition and take an active role in managing it. Do not be afraid to talk about it with your doctor/ pharmacist/ family members. Repressed feelings can be harmful to your immediate well-being and long-term health.
- Adequate hydration  
Maintain adequate hydration with 2 to 3 litres (8 to 12 cups) of fluids per day unless informed by your doctor to restrict fluids. This will decrease your chances of getting constipation and also prevent dehydration.

- Medical and dental treatment

If you need to go into hospital for any reason other than cancer, always inform the doctors and nurses that you are having chemotherapy.

Talk to your cancer doctor if you think you need dental treatment. Always inform your dentist that you are having chemotherapy.

If you have any problem with your treatment, please contact your doctor, pharmacist or nurse clinician.

Please keep all medications out of reach of children.

You can also find useful information with regards to your medication on this website:

<https://www.macmillan.org.uk/information-and-support>

