

PHARMACY

Drug Information

VTD Regimen (Bortezomib-Thalidomide- Dexamethasone)



What is VTD Regimen?

- VTD regimen is used to treat multiple myeloma. It consists of an injection (Bortezomib), an oral cancer drug (Thalidomide) and an oral/injection steroid (Dexamethasone).

How is VTD Regimen Administered/Taken?

- Bortezomib is usually administered as an injection under the skin (subcutaneous) or into your vein (intravenous). Thalidomide is taken orally once a day, preferably at bedtime. Dexamethasone can be taken orally or injected intravenously on the days of Bortezomib injections.
- Thalidomide capsules should be swallowed whole; do not chew or crush the capsules. Inform your doctor or pharmacist if you have difficulty swallowing.
- If possible, handle the medication yourself. If a family member or caregiver needs to give the medication, wash hands before and after handling the medication.
- If you miss or vomit a dose of Thalidomide, skip the missed dose and take it at the next scheduled timing.
- Your doctor will determine the frequency of your regimen.

Can VTD 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 VTD 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 Thalidomide can reduce the number of white blood cells in your blood	<ul style="list-style-type: none"> To reduce risk of infection: <ul style="list-style-type: none"> - Wash your hands after toileting. - Avoid crowds and people who are sick. - Avoid raw food. Please proceed to the A&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.
Bruising or bleeding can occur as Bortezomib and Thalidomide can reduce the number of platelets in your blood	<ul style="list-style-type: none"> To reduce risk of bleeding problems: <ul style="list-style-type: none"> - Do not pick your nose. - Brush your teeth gently with a soft toothbrush. - Be aware that bleeding may take a longer time to stop. Please proceed to the A&E department immediately if you experience any severe or persistent bleeding (e.g. passing a large amount of fresh blood in urine or stools, or passing black sticky stools) or significant bruising.
Nausea or vomiting	<ul style="list-style-type: none"> Take small, frequent meals. Avoid smells that precipitate nausea. Take medicines for nausea or vomiting prescribed by your doctor. Avoid tight-fitting clothes around the waist.

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

Side Effect	Management
Risk of reactivation of the chicken pox virus (Shingles)	<ul style="list-style-type: none"> You will be prescribed anti-viral medication to reduce the risk of this happening.
Stomach irritation	<ul style="list-style-type: none"> Dexamethasone may cause gastric irritation. Taking Dexamethasone after meals may reduce this side effect
Weight gain	<ul style="list-style-type: none"> Dexamethasone may increase your appetite and hence causing weight gain. Keep a healthy and balanced diet.
Raised blood sugar levels	<ul style="list-style-type: none"> Dexamethasone may cause raised blood sugar levels. Blood sugar levels often return to baseline upon stopping Dexamethasone.
Insomnia	<ul style="list-style-type: none"> Dexamethasone may cause insomnia. Inform your doctor if you experience difficulty sleeping.
Signs of blood clot	<ul style="list-style-type: none"> Please proceed to the A&E department immediately if you experience tenderness or hardness over a vein, calf swelling and tenderness, sudden onset of cough, chest pain or shortness of breath.
Signs of a stroke	<ul style="list-style-type: none"> Please proceed to the A&E department immediately if you experience sudden onset of severe headache, eyesight changes, slurred speech, loss of coordination, weakness or numbness in an arm or leg.
Signs of a heart attack	<ul style="list-style-type: none"> Please proceed to the A&E department immediately if you experience chest pain spreading to arms, neck, jaw or back or if you are feeling sweaty and breathless.

Side Effect	Management
Changes in the way the liver works	<ul style="list-style-type: none"> Please proceed to the A&E department immediately if you experience any yellowing of eye white and skin or tea-coloured urine, pale stools or severe abdominal pain.

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?

- Women of child-bearing potential would require pregnancy tests before treatment, every four weeks during treatment and four weeks after stopping treatment. Women must not become pregnant during treatment with VTD and must use an effective method of contraception. Men must use a condom every time they have sexual intercourse. Appropriate contraceptive measures should be taken during and up to three months after stopping of treatment. If pregnancy occurs during your treatment, you must inform your doctor immediately.
- VTD 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 two to three 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.

How Do I Store Dexamethasone and Thalidomide?

- Store your medication in a cool, dry place away from heat, moisture and direct sunlight.

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>

