

# Bortezomib, Lenalidomide, and Dexamethasone (VRd, RVd)

Care Team Contact Information: \_\_\_\_\_

Pharmacy Contact Information: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

- This treatment is often used for multiple myeloma, but it may also be used for other diagnoses.

Goal of Treatment: \_\_\_\_\_

- Treatment may continue for a certain time period, until it no longer works, or until side effects are no longer controlled.

## Treatment Regimen:

- This treatment is often called by its acronym: VRd or RVd
  - **V:** Bortezomib (Velcade)
  - **R:** Lenalidomide (Revlimid)
  - **d:** Dexamethasone

Treatment Name	How the Treatment Works	How the Treatment is Given
Bortezomib (bor-TEH-zoh-mib): Velcade (VEL-kayd)	Blocks a part of the cell that helps break down proteins, which stops cancer cells from growing and causes them to die.	Infusion given into a vein. OR Injection given under the skin.
Lenalidomide (leh-nuh-LIH-doh-mide): Revlimid (REV-lih-mid)	Boosts the immune system, cuts off the cancer's blood supply, and directly attacks the cancer cells.	Capsule(s) taken by mouth.
Dexamethasone (DEK-suh-MEH-thuh-sone)	Tells cancer cells to "self-destruct."	Tablet(s) taken by mouth. OR Infusion given into a vein.

**Treatment Administration and Schedule:** Treatment is typically repeated every 21, 28, or 35, or 42 days. This length of time is called a "cycle." There are many different schedules. Talk with your care team about your treatment schedule.

**Additional Instructions:** Look at the treatment calendar options on our website. Pick the one that matches your treatment. Then, print that option.

Your lenalidomide (and, if taken at home by mouth, dexamethasone) instructions:

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## Treatment Administration and Schedule (Continued)

- Lenalidomide comes as a capsule and is available in 2.5 mg, 5 mg, 10 mg, 15 mg, 20 mg, and 25 mg strengths. Your care team will tell you when and how much to take. They may adjust your doses if needed.
- Swallow lenalidomide capsules whole with water once a day. Do not open, break, or chew your capsules.
- Lenalidomide may be taken with or without food. If taken by mouth, dexamethasone should be taken with food.
- Take lenalidomide at about the same time each day. Ask your care team when you should take dexamethasone.
- If you miss a dose of lenalidomide and it has been less than 12 hours since your usual time, take it as soon as you remember. If it has been more than 12 hours, skip the missed dose. Do not take 2 doses at the same time.
- If you take too much lenalidomide, call your care team right away.

## Storage and Handling of Lenalidomide

- Store lenalidomide and dexamethasone at room temperature between 68°F to 77°F in a dry location away from light.
- Keep lenalidomide and dexamethasone out of the reach of children and pets.
- Whenever possible, give lenalidomide to yourself and follow the steps below. If someone else gives it to you, they must also follow these steps:
  1. Wash hands with soap and water.
  2. Put on gloves to avoid touching the medication. Note: Gloves are not needed if you give the drug to yourself.
  3. Transfer the lenalidomide from its package to a small medicine or other disposable cup.
  4. Administer the medicine immediately by mouth with water.
  5. Remove gloves, if used, and throw them and medicine cup in household trash.
  6. Wash hands with soap and water.
- Do not open or break lenalidomide capsules or handle them any more than needed.
  - If powder from the lenalidomide capsule comes in contact with your skin, wash the skin right away with soap and water.
  - If powder from the lenalidomide capsule comes in contact with the inside of your eyes, nose, or mouth, flush well with water.
- If you plan to use a daily pill box or pill reminder, contact your care team before using it.
  - When the box or reminder is empty, wash it with soap and water before refilling.
  - The person refilling the box or reminder should:
    - Wear gloves. Note: Gloves are not needed if you are refilling it yourself.
    - Wash their hands with soap and water after completing the task, regardless of whether gloves were worn.
- Ask your care team how to safely throw away any unused lenalidomide. Do not throw it in the trash or flush it down the sink or toilet.

**Appointments:** Appointments may include regular check-ups with your care team, lab visits, and imaging tests. It's important to keep your appointments whenever you can. If you miss any appointments, call your care provider as soon as possible to reschedule your appointment.

**Supportive Care to Prevent and Treat Side Effects**

Description	Supportive Care Given at the Clinic or Hospital	Supportive Care Taken at Home
To help prevent or treat nausea and vomiting	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
To help lower the risk of blood clots	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
To help lower the risk of infections	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
Other	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>

## Common Side Effects

Side Effect	Important Information
Low White Blood Cell (WBC) Count and Increased Risk of Infection	<p>Description: WBCs help protect the body against infections. If you have a low WBC count, you may be at a higher risk of infection.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>Wash your hands and bathe regularly.</li> <li>Avoid crowded places.</li> <li>Stay away from people who are sick.</li> <li>Your care team may prescribe a drug that promotes the growth of WBCs.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>Fever of 100.4 °F (38°C) or higher</li> <li>Chills</li> <li>Cough</li> <li>Sore throat</li> <li>Painful urination</li> <li>Tiredness that is worse than normal</li> </ul>
Low Platelet Count	<p>Description: Platelets help the blood clot and heal wounds. If you have low platelet counts, you are at a higher risk of bruising and bleeding.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>Blow your nose gently and avoid picking it.</li> <li>Brush your teeth gently with a soft toothbrush and maintain good oral hygiene.</li> <li>Use an electric razor for shaving and a nail file instead of nail clippers.</li> <li>Avoid over-the-counter medications that may increase the risk of bleeding, such as NSAIDs.</li> <li>Talk with your care team or dentist before medical or dental procedures, as you may need to pause your treatment.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>Nosebleed lasting over 5 minutes despite pressure</li> <li>Cut that continues to bleed</li> <li>Significant gum bleeding when flossing or brushing</li> <li>Severe headaches</li> <li>Blood in your urine or stool</li> <li>Blood in your spit after a cough</li> </ul>
Low Red Blood Cell (RBC) Count and Hemoglobin (Hgb)	<p>Description: RBCs and Hgb help bring oxygen to your body's tissues and take away carbon dioxide. If you have low RBC counts or Hgb, you may feel weak, tired, or look pale.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>Get 7 to 8 hours of sleep each night.</li> <li>Avoid operating heavy machinery when tired.</li> <li>Balance work and rest, staying active but resting when needed.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>Shortness of breath</li> <li>Dizziness</li> <li>Fast or abnormal heartbeats</li> <li>Severe headache</li> </ul>
Nausea or Vomiting	<p>Description: Nausea is an uncomfortable feeling in your stomach or the need to throw up. This may or may not cause vomiting.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>Eat smaller, more frequent meals.</li> <li>Avoid fatty, fried, spicy, or highly sweet foods.</li> <li>Eat bland foods at room temperature and drink clear liquids.</li> <li>If you vomit, start with small amounts of water, broth, or other clear liquids when you are ready to eat again. If that stays down, then try soft foods (such as gelatin, plain cornstarch pudding, yogurt, strained soup, or strained cooked cereal). Slowly work up to eating solid food.</li> <li>Your care provider may prescribe medicine for these symptoms.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>Vomiting for more than 24 hours</li> <li>Vomiting that's nonstop</li> <li>Signs of dehydration (like feeling very thirsty, having a dry mouth, feeling dizzy, or having dark urine)</li> <li>Blood or coffee-ground-like appearance in your vomit</li> <li>Bad stomach pain that doesn't go away after vomiting</li> </ul>

<p>Diarrhea</p>	<p>Description: Diarrhea is when you have loose, watery bowel movements more often than usual. The need to use the bathroom may occur urgently.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Keep track of how many times you go to the bathroom each day.</li> <li>• Drink 8 to 10 glasses of water or other fluids every day, unless your doctor tells you otherwise.</li> <li>• Eat small meals of mild, low-fiber foods like bananas, applesauce, potatoes, chicken, rice, and toast.</li> <li>• Stay away from foods with high fiber (like raw vegetables, fruits, and whole grains), foods that cause gas (like broccoli and beans), dairy foods (like yogurt and milk), and spicy, fried, and greasy foods.</li> <li>• Your care team might suggest a medicine for diarrhea.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>• 4 or more bowel movements than normal in 24 hours</li> <li>• Dizziness or lightheadedness while having diarrhea</li> <li>• Bloody diarrhea</li> </ul>
<p>Constipation</p>	<p>Description: Constipation means having a hard time passing stools or not going to the bathroom often. Your stools might feel hard and dry, which can make you uncomfortable or hurt.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Keep track of how many times you move your bowels every day.</li> <li>• Drink 8 to 10 glasses of water or other fluids each day, unless your doctor tells you otherwise.</li> <li>• Try to stay active and get some exercise if you can.</li> <li>• Eat high-fiber foods like raw fruits and vegetables.</li> <li>• Your care team might suggest medication to help move your bowels.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>• Constipation that lasts 3 or more days</li> <li>• Constipation after 48 hours, even after using a laxative</li> </ul>
<p>Nerve Pain and Tingling</p>	<p>Description: Nerve pain and tingling are uncomfortable sensations caused by nerve damage or irritation. Pain may be sharp, burning, or deep, while tingling feels like pins-and-needles or mild electric shocks, often in the hands, feet, arms, or legs.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Track your pain levels, sensations, and any triggers or factors that make the pain worse or better.</li> <li>• Check your feet daily for any injuries or changes, especially if you have numbness or tingling that affects your feeling.</li> <li>• Your care team may prescribe or recommend medications to help manage symptoms.</li> </ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>• Persistent or worsening muscle or joint pain</li> <li>• New symptoms, such as swelling, redness, or warmth in the joints</li> <li>• Severe weakness affecting your daily activities</li> <li>• Difficulty walking or moving due to pain or weakness</li> <li>• Side effects from pain relief medications</li> </ul>
<p>Muscle Spasm or Twitching</p>	<p>Description: Treatment can sometimes make your muscles twitch or cramp up. This might feel like a little jump or twitch in a part of your body that you can't control, or a feeling of tightness that can be painful.</p> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"> <li>• Muscle cramps and stiffness</li> <li>• Muscle pain</li> </ul>

Fatigue	<p>Description: Fatigue is a constant and sometimes strong feeling of tiredness.</p> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• Routine exercise has been shown to decrease levels of fatigue. Work with your care team to find the right type of exercise for you.</li><li>• Ask your family and friends for help with daily tasks and emotional support.</li><li>• Try healthy ways to feel better, like meditation, writing in a journal, doing yoga, and using guided imagery to lower anxiety and feel good.</li><li>• Make a regular sleep schedule and limit naps during the day so you can sleep better at night, aiming for 7 to 8 hours of sleep.</li><li>• Don't use heavy machines or do things that need your full attention if you're very tired to avoid accidents.</li></ul> <p>Talk to your care team if you have:</p> <ul style="list-style-type: none"><li>• Tiredness that affects your daily life</li><li>• Tiredness all the time and it doesn't get better with rest</li><li>• Dizziness and weakness along with being tired</li></ul>
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## Select Rare or Serious Side Effects

Side Effect	Talk to Your Care Team if You Have Any of These Signs or Symptoms		
<b>Blood Clots (Lenalidomide Boxed Warning)</b>	<p>Signs or symptoms of a <b>blood clot</b> in the lung, arm, or leg may include:</p> <ul style="list-style-type: none"> <li>• Shortness of breath</li> <li>• Chest pain</li> <li>• Arm or leg swelling</li> </ul>	<p>Signs or symptoms of a <b>heart attack</b> may include:</p> <ul style="list-style-type: none"> <li>• Chest pain that may spread to the arms, neck, jaw, back, or stomach area (abdomen)</li> <li>• Feeling sweaty</li> <li>• Shortness of breath</li> <li>• Feeling sick or vomiting</li> </ul>	<p>Signs or symptoms of <b>stroke</b> may include:</p> <ul style="list-style-type: none"> <li>• Sudden numbness or weakness, especially on one side of the body</li> <li>• Severe headache or confusion</li> <li>• Problems with vision, speech, or balance</li> </ul>
Liver Problems	<ul style="list-style-type: none"> <li>• Yellowing of your skin or the whites of your eyes</li> <li>• Severe nausea or vomiting</li> <li>• Pain on the right side of your stomach area (abdomen)</li> </ul>	<ul style="list-style-type: none"> <li>• Dark urine (tea colored)</li> <li>• Bleeding or bruising more easily than normal</li> </ul>	
Heart Problems	<ul style="list-style-type: none"> <li>• Swelling of your stomach-area (abdomen), legs, hands, feet, or ankles</li> <li>• Shortness of breath</li> <li>• Nausea or vomiting</li> <li>• New or worsening chest discomfort, including pain or pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Weight gain</li> <li>• Pain or discomfort in your arms, back, neck, or jaw</li> <li>• Protruding neck veins</li> <li>• Breaking out in a cold sweat</li> <li>• Feeling lightheaded or dizzy</li> </ul>	
Lung Problems	<ul style="list-style-type: none"> <li>• Cough</li> <li>• Shortness of breath</li> </ul>	<ul style="list-style-type: none"> <li>• Chest pain</li> </ul>	
Herpes Reactivation	<ul style="list-style-type: none"> <li>• Blisters on your lips or around your mouth</li> <li>• Blisters on and around your genitals</li> </ul>	<ul style="list-style-type: none"> <li>• Fever of 100.4 °F (38°C) or higher</li> <li>• Flu-like symptoms, such as fatigue, headache, and muscle aches</li> </ul>	
Severe Skin Reactions (Lenalidomide)	<ul style="list-style-type: none"> <li>• A red, itchy, skin, rash</li> <li>• Peeling of your skin or blisters</li> </ul>	<ul style="list-style-type: none"> <li>• Severe itching</li> <li>• Fever</li> </ul>	
Severe Allergic Reactions (Lenalidomide)	<p>Get emergency medical help right away if you develop any of the following signs or symptoms:</p> <ul style="list-style-type: none"> <li>• Swelling of your lips, mouth, tongue, or throat</li> <li>• Trouble breathing or swallowing</li> <li>• Raised red areas on your skin (hives)</li> </ul>		
Injection Site Reactions (Bortezomib Injection)	<ul style="list-style-type: none"> <li>• Itching</li> <li>• Swelling</li> <li>• Bruising</li> <li>• Pain</li> </ul>	<ul style="list-style-type: none"> <li>• Rash</li> <li>• Bleeding</li> <li>• Redness of the skin</li> </ul>	
Infusion Reactions (Bortezomib Infusion)	<ul style="list-style-type: none"> <li>• Fever of 100.4 °F (38°C) or higher</li> <li>• Chills</li> <li>• Rash or hives</li> <li>• Itching</li> <li>• Low blood pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty breathing or wheezing</li> <li>• Nausea or vomiting</li> <li>• Headaches</li> <li>• Back or chest pain</li> </ul>	

**Before starting treatment, ask your care team when to call 9-1-1 or seek emergency help.**

**If you experience any new, worsening, or uncontrolled side effects, contact your care team immediately.**

## Intimacy, Pregnancy, and Breastfeeding

- Treatment may **change how you feel about intimacy and your body**. However, physical closeness—such as holding hands and hugging—remains safe. It is common to have questions about intimacy. If needed, talk to your care team for guidance.
- Treatment may cause **birth defects (deformed babies) or death of an unborn baby**. If you are pregnant or plan to become pregnant, you must not take lenalidomide.

You must not get pregnant:

- For at least 4 weeks before starting lenalidomide.
- While taking lenalidomide.
- During any breaks (interruptions) in your treatment with lenalidomide.
- For at least 4 weeks after stopping lenalidomide and 7 months after stopping bortezomib.

If you can become pregnant:

- You will have pregnancy tests weekly for 4 weeks, then every 4 weeks if your menstrual cycle is regular, or every 2 weeks if your menstrual cycle is irregular.
- If you miss your period or have unusual bleeding, you will need to have a pregnancy test and receive counseling.
- You must agree to use two acceptable forms of birth control at the same time, for at least 4 weeks before, while taking, during any breaks (interruptions) in your treatment, and for at least 4 weeks after stopping lenalidomide.
- Talk with your healthcare provider to find out about options for acceptable forms of birth control that you may use to prevent pregnancy before, during, and after treatment with lenalidomide.
- If you had unprotected sex or if you think your birth control has failed, stop taking lenalidomide immediately and call your healthcare provider right away.

If you become pregnant while taking lenalidomide, stop taking it right away and call your healthcare provider. If your healthcare provider is not available, you can call the REMS Call Center at 1-888-423-5436. Healthcare providers and patients should report all cases of pregnancy to:

- FDA MedWatch at 1-800-FDA-1088, and
- The Lenalidomide REMS program at 1-888-423-5436

There is a pregnancy exposure registry that monitors the outcomes of those who take lenalidomide during pregnancy, or if their partner takes lenalidomide and they are exposed during pregnancy. You can enroll in this registry by calling the Lenalidomide REMS program at the phone number listed above.

Lenalidomide can pass into human semen:

- Even if you have had a vasectomy, you must always use a latex or synthetic condom during any sexual contact with anyone who is pregnant or can become pregnant while taking lenalidomide, during any breaks (interruptions) in your treatment, and for up to 4 weeks after stopping lenalidomide and 4 months after stopping bortezomib.
- Do not have unprotected sexual contact with anyone who is or could become pregnant. Tell your healthcare provider if you do have unprotected sexual contact with anyone who is or could become pregnant.
- Do not donate sperm while taking lenalidomide, during any breaks (interruptions) in your treatment, and for up to 4 weeks after stopping lenalidomide. If anyone becomes pregnant with your sperm, the baby may be exposed to lenalidomide and may be born with birth defects.

If your partner becomes pregnant, you should call your healthcare provider right away.

- **Do NOT breastfeed** during treatment and for 2 months after your last dose of bortezomib.

## Handling Body Fluids and Waste

Some drugs you receive may stay in your urine, stool, sweat, or vomit for many days after treatment. Because many cancer drugs are toxic, your body waste may also be dangerous to touch. To help protect yourself, your loved ones, and the environment, **follow these instructions** for at least **48 hours** after each dose of **lenalidomide** and **bortezomib**:

- Pregnant women should avoid touching anything that may be soiled with body fluids from the patient.
- You can use your usual toilet. Always close the lid and flush to discard all waste. If you have a low-flow toilet, flush twice.
- If the toilet or seat is soiled with urine, stool, or vomit, clean the surface after each use before others use it.
- Wash your hands with soap and water for at least 20 seconds after using the toilet.
- If you need a bedpan, inform your caregiver so they can wear gloves and assist with cleanup. Wash the bedpan with soap and water daily.
- If you cannot control your bladder or bowels, use a disposable pad with a plastic back, a diaper, or a sheet to absorb waste.
- Wash any skin exposed to body waste with soap and water.
- Wash soiled linens or clothing separately from other laundry. If you don't have a washer, place them in a plastic bag until they can be washed.
- Wash your hands with soap and water after touching soiled linens or clothing.

## Additional Information

- **Tell your care team about all the medicines you take.**  
This includes prescriptions, over-the-counter drugs, vitamins, and herbal products. Before starting any new medicine, supplement, or vaccine, ask your care team first.
- Before starting lenalidomide, read and agree to the **Lenalidomide REMS program** and sign the Patient-Physician Agreement Form. For details, call 1-888-423-5436 or visit [www.lenalidomiderems.com](http://www.lenalidomiderems.com).
- You should drink plenty of fluids to **avoid dehydration**. Tell your care team if you have any symptoms of low blood pressure, such as dizziness, lightheadedness, and feeling faint.
- If you use a medication for diabetes that is taken by mouth, **check your blood sugar more frequently** than usual. Notify your care team if you have any changes in blood sugar level.
- There is a risk of developing **new cancers** after taking lenalidomide. Talk with your care team about the potential increased risk of new cancers.
- Lenalidomide is **not eligible for automatic refills**.
- **This Patient Education Sheet may not describe all possible side effects.**  
Call your healthcare provider for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

## Notes

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Updated Date: August 16, 2025

Scan the QR code below to access this education sheet.



Important notice: The Association of Cancer Care Centers (ACCC), Hematology/Oncology Pharmacy Association (HOPA), Network for Collaborative Oncology Development & Advancement, Inc. (NCODA), and Oncology Nursing Society (ONS) have collaborated in gathering information for and developing this patient education guide. This guide represents a brief summary of the medication derived from information provided by the drug manufacturer and other resources.

This guide does not cover all existing information related to the possible uses, directions, doses, precautions, warnings, interactions, adverse effects, or risks associated with this medication and should not substitute for the advice of a qualified healthcare professional. Provision of this guide is for informational purposes only and does not constitute or imply endorsement, recommendation, or favoring of this medication by ACCC, HOPA, NCODA, or ONS, who assume no liability for and cannot ensure the accuracy of the information presented. All decisions related to taking this medication should be made with the guidance and under the direction of a qualified healthcare professional.

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PES-445