

Melphalan Conditioning for Autologous Transplant

Care Team Contact Information: _____

Pharmacy Contact Information: _____

Diagnosis: _____

- This treatment is used for conditioning chemotherapy before an autologous stem cell transplant for multiple myeloma (MM).
- It may also be used for other reasons.

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

Treatment Name	How the Treatment Works	How the Treatment is Given
Melphalan (mel-fah-lan): Alkeran (al-keer-an), Evomela (e-voh-mela)	Stops cancer cells from making the instructions they need to grow and multiply, causing the cells to die.	Infusion into a vein (intravenous (IV) infusion).

Treatment Administration and Schedule

Treatment is typically given as a one-time dose, usually either 1 or 2 days prior to the infusion of your autologous stem cells. This is called stem cell “conditioning” chemotherapy.

Treatment Name	Conditioning Chemotherapy	
	Day -2 or Day -1	Day 0
Melphalan	✓	
Stem Cell Infusion		✓

Note: If melphalan is given on Day -2, there will be a “rest day” on Day -1 where no treatment is given.

Appointments

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

Supportive Care to Prevent and Treat Side Effects

Description	Supportive Care Given at the Clinic or Hospital	Supportive Care Taken at Home
To help your body make white blood cells to fight infections		
To help prevent mouth sores		
To help prevent or treat nausea and vomiting		
To help prevent and treat diarrhea		
Other		

Common Side Effects

Side Effect	Important Information
Low White Blood Cell (WBC) Count (Neutropenia) and Increased Risk of Infection (Boxed Warning)	Description: WBCs help protect your body from infections. A low WBC count increases your risk of infection. Recommendations: - Wash your hands often and bathe regularly. - Avoid crowded places and close contact with people who are sick. - Follow food safety and wound care advice from your care team. - Your care team may prescribe medicine to help your WBCs recover. Talk to your care team if you have: - Fever of 100.4°F (38°C) or higher - Chills - New or worsening cough or sore throat - Painful urination or signs of a urinary infection - Feeling much more tired than usual - Red, swollen, warm, or painful areas on the skin
Low Platelet Count (Thrombocytopenia) (Boxed Warning)	Description: Platelets help your blood clot and wounds heal. A low platelet count increases your risk of bruising and bleeding. Recommendations: - Blow your nose gently and avoid picking it. - Brush your teeth gently with a soft toothbrush and keep good oral hygiene. - Use an electric razor for shaving and a nail file instead of nail clippers. - Avoid over-the-counter medicines that can increase bleeding risk (for example, nonsteroidal anti-inflammatory drugs (NSAIDs) like ibuprofen). - Talk with your care team or dentist before medical or dental procedures — you may need to pause treatment. Talk to your care team if you have: - A nosebleed lasting more than 5 minutes despite pressure - A cut that continues to bleed - Heavy gum bleeding when brushing or flossing - Sudden or severe headache - Blood in your urine or stool - Blood in your spit after coughing
Low Red Blood Cell (RBC) Count and Hemoglobin (Hgb) (Anemia) (Boxed Warning)	Description: RBCs and Hgb carry oxygen to your body's tissues and remove carbon dioxide. Low RBC or Hgb (anemia) can make you feel weak, very tired, or look pale. Recommendations: - Aim for 7 to 8 hours of sleep each night. - Do not drive, operate heavy machinery, or do other dangerous activities if you are very tired. - Balance activity and rest — stay as active as you can, but rest when needed. - Eat a balanced diet and follow any nutrition or supplement advice from your care team. Talk to your care team if you have: - Shortness of breath - Dizziness or fainting - Fast or irregular heartbeats - Sudden or severe headache

Fatigue	Description: Fatigue is a constant and sometimes strong feeling of tiredness. Recommendations: • Routine exercise can help reduce fatigue. Talk with your care team to find the right type and amount of activity for you. • Ask family and friends for help with daily tasks and for emotional support. • Try healthy ways to feel better, such as meditation, journaling, yoga, or guided imagery, to reduce anxiety and improve well-being. • Aim for 7 to 8 hours of sleep each night. Limit daytime naps to help you sleep better at night. • Do not drive, operate heavy machinery, or do other potentially dangerous activities if you are very tired. Talk to your care team if you have: • Tiredness that affects your daily life or prevents you from doing normal activities • Tiredness that does not get better with rest • Dizziness or weakness along with severe tiredness
Mouth Sores or Irritation (Mucositis or Stomatitis)	Description: Treatment can irritate the lining of the mouth. In some cases, this can cause redness, sores, pain, and swelling. Recommendations: • Rinse your mouth after meals and at bedtime; rinse more often if sores develop. • Brush your teeth gently with a soft toothbrush or use a cotton swab after meals. • Use a mild, non-alcohol mouth rinse at least 4 times daily (after meals and at bedtime). Example: 1/8 teaspoon salt + 1/4 teaspoon baking soda in 8 oz warm water. • Avoid acidic, hot, spicy, rough, or crunchy foods and drinks that can irritate your mouth. • Avoid tobacco, alcohol, and alcohol-based mouthwash. • Your care team may prescribe medicines or mouth treatments to help with pain and healing. Talk to your care team if you have: • Painful mouth sores or throat pain • Trouble eating or significant weight loss

Nausea and Vomiting	Description: Nausea is an uncomfortable feeling in your stomach or the need to throw up. You may or may not vomit. Recommendations: • Eat smaller, more frequent meals. • Avoid fatty, fried, spicy, or highly sweet foods. • Eat bland foods at room temperature and drink clear liquids. • If you vomit, start with small sips of water, broth, or other clear liquids. If these stay down, try soft foods (such as gelatin, plain cornstarch pudding, yogurt, strained soup, or strained cooked cereal) and gradually return to solid foods. • Your care team may prescribe medicine for these symptoms. Talk to your care team if you have: • Vomiting for more than 24 hours • Nonstop vomiting • Signs of dehydration (very thirsty, dry mouth, dizziness, or dark urine) • Blood in your vomit or vomit that looks like coffee grounds • Severe stomach pain that does not go away after vomiting
Diarrhea	Description: Diarrhea means having bowel movements more often than usual. Your stools may also be loose or watery. If you have diarrhea: • Keep track of how often you have diarrhea. • Drink 8 to 10 glasses of water or fluids each day. Do this unless your care team tells you otherwise. • Eat small meals with low-fiber foods. Try bananas, applesauce, potatoes, chicken, rice, or toast. • Avoid high-fiber foods. These include raw vegetables, fruit, and whole grains. • Avoid foods that may cause gas. These include broccoli and beans. • Avoid milk, yogurt, and other dairy foods. • Avoid spicy, fried, or greasy foods. • Your care team may recommend medicine for diarrhea. One example is loperamide (Imodium). Talk to your care team if you have: • An increase of 4 or more bowel movements than usual in one day • Dizziness or lightheadedness while you have diarrhea • Signs of dehydration, such as feeling very thirsty, dizzy, or having dark urine • Blood in your stool
Kidney Problems	Description: Treatment can cause kidney problems, including damage to the kidneys and decreased kidney function. Your care team will monitor your kidney function during treatment. Recommendations: • Drink 8 to 10 glasses of water or other fluids each day, unless your care team tells you otherwise. • Your care team may give you fluids and electrolytes with your treatment. Talk to your care team if you have: • Decrease in your amount of urine • Blood in your urine • Swelling of your ankles • Loss of appetite

Hair Loss (Alopecia)	Description: Hair loss or thinning may begin days to weeks after treatment starts and usually grows back later. New growth can be a different color or texture and may not look the same as before. Recommendations: • Consider a short haircut before treatment and use scarves, hats, or wigs for comfort and confidence. • Keep your head covered outdoors to protect it from the sun and cold; apply sunscreen to your exposed scalp. • Use gentle haircare: mild shampoo, soft brush, and avoid heat styling and harsh treatments. • Ask your care team about wig prescriptions or resources for head coverings. Talk to your care team if you have: • No hair regrowth months after treatment ends • Concern about hair changes or need help finding a wig or support resources
Rash or Itchy Skin	Description: Rash or itchy skin can cause redness, swelling, and a variety of bumps or patches (small red spots, welts, blisters, or scaly dry areas). Recommendations: • Keep your skin moisturized with creams or lotions to reduce rash and itchiness. • Wear loose-fitting clothing. • Avoid perfumes and colognes, as they may worsen rash symptoms. • Limit time spent in the heat to prevent worsening symptoms. • Avoid sun exposure, especially between 10 AM and 4 PM, to lower the risk of sunburn. • Wear long-sleeved clothing with ultraviolet (UV) protection and broad-brimmed hats. • Apply broad-spectrum sunscreen (UVA/UVB) with sun protective factor (SPF) 30 or higher as directed. • Use lip balm with SPF 30 or higher. • Avoid tanning beds. • Your care team may recommend medicines for symptoms. Talk to your care team if you have: • Rash or itching that continues to worsen

Select Rare Side Effects

Side Effect	Talk to Your Care Team if You Have Any of These Signs or Symptoms
Allergic Reactions, Including Anaphylaxis (Boxed Warning)	Get emergency medical help right away if you develop any of the following signs or symptoms: - Swelling of your lips, mouth, tongue, or throat - Trouble breathing or swallowing - Raised red areas on your skin (hives) - A very fast heartbeat - You feel dizzy or faint
Lung Problems	Melphalan can cause lung problems that may be serious, life-threatening, or fatal. Lung problems can include inflammation or scarring in the lungs called interstitial lung disease (ILD) or pneumonitis. If you develop lung problems, your care team may treat you with corticosteroid medicines. Call your care team right away if you develop: - Cough - Trouble breathing or shortness of breath - Fever - Other new or worsening breathing symptoms such as chest tightness or wheezing
Infusion-Related Reactions	Your care team may slow or temporarily stop the infusion if you have a reaction. Treatment may be permanently stopped for a severe reaction. - Chills or shaking - Itching, rash, or flushing - Trouble breathing, wheezing, or tongue swelling - Dizziness or feeling faint - Feeling of impending doom - Fever of 100.4°F (38°C) or higher - New or severe pain in your back or neck
Extravasation	Extravasation happens when medicine that is supposed to go into a vein leaks out into the tissues around it. This can cause pain, swelling, and damage to the skin and tissues. Melphalan may cause extravasation. - Pain, burning, or stinging at the infusion site - Swelling, redness, or blistering around the site - Coolness or numbness in the area - Decreased blood flow or tissue damage, potentially leading to ulcers or tissue death in severe cases
Risk of New Cancers	There is a risk of developing one or more new cancers during or after treatment. Talk with your care team about this risk, and ask about the signs and symptoms to watch for.

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, Fertility, 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 can affect your **ability to have children**. It may damage your reproductive organs or stop them from working. If you are worried about fertility, talk to your care team before starting treatment.
- Treatment may **harm an unborn baby**.
 - If you are able to become pregnant:
 - Your care team will verify your pregnancy status before treatment.
 - Use an effective method of birth control during treatment and for 6 months after your last dose of melphalan.
 - If you think you might be pregnant or if you become pregnant, tell your care team right away.
 - If your partner is able to become pregnant, use an effective method of birth control—such as condoms—during treatment and for 3 months after your last dose of melphalan.
- **Do not breastfeed** during treatment and for 1 week after your last dose of melphalan.

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 **melphalan**:

- People who are pregnant 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.
- **This Patient Education Sheet may not describe all possible side effects.**
Call your care team for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

Notes

Updated Date: September 29, 2026

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 to gather information and develop this patient education guide. This guide is a summary of the medication, based on information provided by the drug manufacturer and other sources.

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