

INTRAVENOUS CANCER TREATMENT EDUCATION



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RAMUCIRUMAB

Name of the regimen and cancer drugs

- Ramucirumab (RA-myoo-SIR-yoo-mab): Cyramza®

Common uses

This regimen is most commonly used for gastric cancer or liver cancer, but may be used for other diagnoses.

Treatment schedule

Your treatment will be given into your vein through an intravenous (IV) line. This may be into a short, flexible temporary catheter in your arm, or through a central venous catheter. A central venous catheter, or central line is a long, flexible IV tube that empties into a very large vein next to the heart. Talk with your care team to see which will be best for you and your treatment.

Each ramucirumab treatment is repeated every 14 days. This is known as one cycle. Your treatment may be given for a set number of cycles, or it will keep going until the drug stops working or you have side effects which stop you from continuing treatment.

- ☐ Ramucirumab IV is given on Day 1.

Drug	DAY	1	2	3	4	5	6	7	8	9	...	14	Cycle 2 Day 1
Ramucirumab													

Other medications

Other medications may be ordered for you to prevent or treat certain side effects. These include:

	Instructions:
Medications to prevent side effects	<p>You may receive medications to prevent infusion related reactions prior to starting your cancer treatment.</p> <hr/> <hr/> <hr/> <hr/> <hr/>
Medications to prevent side effects	<p>You may receive medications to prevent side effects just before your cancer treatment. You may also get prescriptions for other medications to take at home as below:</p> <hr/> <hr/> <hr/> <hr/> <hr/>

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Possible drug interactions

- ☐ Ramucirumab may interact with other drugs you are taking. Please inform your care providers of all prescription medicine, over-the-counter medications, vitamins, and herbal products that you take.
- ☐ Tell your care provider and dentist if you are taking medication to strengthen your bones while receiving ramucirumab
- ☐ Talk with your care provider or pharmacist before taking new medications, supplements, or receiving any vaccines.

Common Side Effects

Common side effects that have been known to happen in patients receiving ramucirumab are listed in the left side of this table. In some instances, the side effects may be reported less often but are still important to discuss. This table does not list all the known side effects for this therapy, only the ones that are experienced most often. Not every patient experiences every known side effect of a drug; even if you are taking the same drug as another patient, you may experience different side effects. Options to help manage any side effects that do occur are included on the right side of this table. These should be discussed with your care provider. If you experience any side effect you cannot manage or that is not listed here, contact your care provider.

Possible Side Effect	Management
Decreased platelet count and increased risk of bleeding	<p>Your platelets should be monitored by a simple blood test. When they are low, you may bruise or bleed more easily than usual.</p> <ul style="list-style-type: none">• Use caution to avoid bruises, cuts, or burns.• Blow your nose gently and do not pick your nose• Brush your teeth gently with a soft toothbrush and maintain good oral hygiene• When shaving use an electric razor instead of razor blades• Use a nail file instead of nail clippers <p>Call your care team if you have bleeding that won't stop. Examples include:</p> <ul style="list-style-type: none">• A bloody nose that bleeds for more than 5 minutes despite pressure• A cut that continues to ooze despite pressure• Gums that bleed a lot when you floss or brush <p>Seek medical help right away if you have any severe headaches, blood in your urine or stool, coughing up blood, or bleeding that you cannot stop or lasts a long time.</p> <p>You may need to take a break or “hold” your medication for medical or dental procedures.</p> <p>Talk to your care team or dentist before any scheduled procedures.</p>

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Possible Side Effect	Management
Decreased white blood cells (WBCs) and increased risk for infection	<p>Your WBCs should be monitored by a simple blood test. When your WBCs are low, you are at a greater risk of having an infection. Take the following precautions to protect yourself from infection.</p> <ul style="list-style-type: none"> • Wash your hands often, especially before eating and after using the bathroom. • Avoid crowds and people with fevers, flu, or other infection. • Bathe often for good personal hygiene. <p>Contact your care team if you experience any signs or symptoms of an infection such as:</p> <ul style="list-style-type: none"> • Fever (temperature more than 100.4°F or 38°C) • Chills • Sore throat • Burning when peeing • Tiredness that is worse than normal • A sore that becomes red, is draining, or does not heal. <p>Check with your care team before taking any medicine for a fever or chills.</p>
Fatigue	<ul style="list-style-type: none"> • You may be more tired than usual or have less energy • Stay as active as possible, but know it is okay to rest as needed • Try to do some type of moderate activity every day • Conserve your energy. Plan your activities and do them at a time of day when you feel a bit more energetic • Follow a healthy diet and stay hydrated • Accept help from family and friends • Find healthy ways to manage stress, such as meditation, journaling, yoga, and guided imagery • Develop good sleeping habits, limit napping during the day to help you sleep better at night • Avoid operating heavy machinery if you feel too tired • Contact your care team if you experience extreme fatigue that prevents you from doing your normal daily activities
Increased blood pressure	<p>Take your blood pressure often. Record your blood pressure in a diary and report these to your care team. Contact your care team for high blood pressure or if the following symptoms occur:</p> <ul style="list-style-type: none"> • Headache • Dizziness • Chest pain • Shortness of breath • Fluid retention, weight gain, or swelling
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Possible Side Effect	Management
Changes in electrolyte levels and other laboratory values: <ul style="list-style-type: none">• Low albumin levels• Low calcium levels• Low sodium levels	<p>Changes in some lab values may occur and will be monitored by a simple blood test.</p> <ul style="list-style-type: none">• You may not feel any symptoms if the changes are mild and they usually are not a sign of a serious problem.• More severe changes may occur, which can be a sign of a serious problem. <p>Notify your care team if you have any of the following:</p> <ul style="list-style-type: none">• Shortness of breath• Chest discomfort• Weakness or fatigue• New aches and pains• Headaches• Dizziness• Swelling of your legs or feet• Red or brown colored urine
Abdominal pain	<p>Abdominal pain/discomfort may occur. Report any serious pain or symptoms to your care team right away.</p>

Rare but serious side effects

- ☐ Hemorrhage - You may be at a higher risk of bleeding while taking ramucirumab. Be sure to seek medical attention right away if you have any major bleeding. Also be sure to check for any signs of blood in your stool.
- ☐ Bowel perforation - Tell your doctor right away if you get high fever, nausea, vomiting, or severe abdominal pain.
- ☐ Wound healing problems - If you need to have a surgical or dental procedure, tell your doctor that you are taking ramucirumab. Ramucirumab may need to be stopped until your wound heals after some types of surgery.
- ☐ Arterial Thrombosis - Ramucirumab can increase your risk of having a blood clot.
- ☐ Infusion Reaction - Ramucirumab can rarely cause an infusion reaction. During your treatment, let the nurse know right away if any of these symptoms happen: chills or shaking, dizziness, fever, itchiness or rash, flushing, difficulty breathing, wheezing, throat irritation, cough, congestion, sudden back pain, or feeling faint.
- ☐ Hepatic Toxicity – Ramucirumab may be harmful to your liver. Speak to your care team to monitor your liver function. If you get this side effect, your doctor may change your dose or stop treatment for some time.
- ☐ Reversible posterior leukoencephalopathy syndrome - A condition called reversible posterior leukoencephalopathy syndrome can occur while taking ramucirumab. Call your care team right away if you have headaches, seizures, confusion or changes in vision.

If you experience ANY new, worsening, or uncontrolled side effects, call your care team immediately.

(INSTITUTIONAL CONTACT INFO)

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Handling body fluids and waste

Some of the drugs you receive may be present in urine, stool, sweat, or vomit for many days after treatment. Many cancer drugs are toxic, your bodily waste may also be toxic and can be dangerous to come into contact with. Once you have started ramucirumab, follow the instructions below for at least two days after your treatment. This is to keep you, your loved ones, and the environment as safe as possible.

- ☐ Pregnant women should avoid touching anything that may be soiled with body fluids from the patient.
- ☐ Toilet and septic systems
 - You may use the same toilet, septic tank, and/or sewer that you usually use. If you have a low-flow toilet, close the lid and flush twice to ensure that all waste has been discarded.
- ☐ If the toilet or toilet seat becomes soiled with urine, stool, or vomit, clean the surface after every use before other people use the toilet.
- ☐ Wash hands with soap and water after using the toilet for at least 20 seconds.
- ☐ If you need a bedpan, be sure your caregiver knows to wear gloves to assist with cleanup and to wash the bedpan with soap and water every day.
- ☐ If you do not have good control of bladder or bowels, use a disposable pad with a plastic back, a diaper, or a sheet to absorb body waste.
- ☐ Wash any skin that has been exposed to body waste with soap and water.
- ☐ Linens or clothing that are soiled with body fluids or body waste should be washed separately from other linens and clothing. If you do not have a washer, place the soiled linens in a plastic bag until they can be washed.
- ☐ Wash hands with soap and water after touching linens or clothing that may be soiled with body fluids.

Intimacy, sexual activity, contraception, and fertility

This treatment may cause changes that can affect intimacy and sexuality, including desire and body image. Maintaining physical closeness and/or intimacy with loved ones can be continued during treatment. Holding hands, hugging, and kissing can be done safely. It is recommended that you talk to your care team about any restrictions or questions you may have.

Some treatments can influence the ability to have children, also known as fertility. If you're interested in preserving fertility, talk to your care team before treatment. Ask your healthcare provider to determine when it is safe to become pregnant after your treatment. Patients of reproductive ability should not become pregnant or get their partners pregnant while receiving ramucirumab. Some of the drugs you receive may be present in semen and vaginal secretion for many days after treatment. You should use barrier devices, such as condoms, during sexual activity to limit exposure to body fluids.

- ☐ Talk to your care team about birth control. Not all options may be right for your treatment or cancer. Effective contraception could include one or more of the following: barrier methods (e.g. condoms), hormone methods (e.g. birth control pills), or surgery.
- ☐ Tell your care team if you become pregnant or plan to breastfeed.

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Additional resources

Product website: [Cyramza.com](https://www.cyamza.com)

Prescribing information link: : uspi.lilly.com/cyramza/cyramza.html

Product resources: [Cyramza.com/financial-support](https://www.cyamza.com/financial-support)

Additional instructions

Updated – March 1, 2023

Important notice: The Association of Community Cancer Centers (ACCC), Hematology/Oncology Pharmacy Association (HOPA), National Community Oncology Dispensing Association, 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 therapy 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 therapy 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 therapy by ACCC, HOPA, NCODA, or ONS, who assume no liability for and cannot ensure the accuracy of the information presented. The collaborators are not making any representations with respect to the medications whatsoever, and any and all decisions, with respect to such medications, are at the sole risk of the individual receiving therapy. All decisions related to receiving this therapy should be made with the guidance and under the direction of a qualified healthcare professional.

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