

How Much Do You Know About Certain Chemotherapy Side Effects?

Learn more about the protection of bone marrow and how it may help lower the risk of bone marrow suppression for certain people with small cell lung cancer.

September 10, 2021 By G1 Therapeutics, Inc.

In the United States, about 30,000 to 35,000 people are newly diagnosed each year with small cell lung cancer (SCLC). Extensive-stage small cell lung cancer (ES-SCLC) means that the cancer has spread to other parts of the body. When confronting this diagnosis, self-education may be comforting while on this journey. In particular, understanding the word “myeloprotection” may be helpful before your next doctor appointment.

After a diagnosis is received, treating the cancer is the next step. Chemotherapy—commonly referred to as “chemo”—is a type of cancer treatment that uses strong chemicals to destroy fast-growing cells, like cancer cells. But cancer cells are not the only types of fast-growing cells in the body. There are other types that could be targeted by chemo too—normal, healthy cells like those in the bone marrow.

Chemo can damage the blood-forming cells in the bone marrow

Bone marrow makes blood-forming cells, which are the “parent cells” that make white and red blood cells. White blood cells help fight off infection and protect the body from viruses and bacteria while red blood cells pick up oxygen from the lungs and carry it to cells throughout the body. Both cells play important roles during treatment. When going through chemo treatment, chemo can’t tell the difference between fast-growing cancer cells or the fast-growing healthy cells—like the cells that make white and red blood cells—and can damage both along the way, causing a reduction in the amount of white and red blood cells in the body. This is called bone marrow suppression, or “myelosuppression.”

Damage to blood-forming cells from chemo can make white blood cell counts drop too low, causing a side effect called neutropenia—this means there could be an increased risk for infection. Similarly, red blood cell counts can also drop too low, causing a different side effect called

anemia—this can make someone feel very tired, weak, dizzy, or make breathing more difficult. When going through treatment, your care team will be testing for side effects such as these. If side effects do occur, the chemo dose may have to be reduced, taking the treatment plan off track.

Not having to reduce the chemo dose may help treatment stay on track

To help reduce the potential occurrence of low blood cell counts caused by myelosuppression, COSELA™ (trilaciclib) is available for people with an ES-SCLC diagnosis receiving certain types of chemotherapy. COSELA is given up to 4 hours before each chemo treatment to help keep chemo from damaging bone marrow while chemo works to destroy the cancer cells. Helping to protect the parent cells in bone marrow may help keep blood cell counts from dropping too low—which is what can cause side effects like neutropenia and anemia. This proactive protection of the bone marrow is what doctors call “myeloprotection” (my-low-proh-TEK-shun) and may help you stay on track with your scheduled treatment plan. After each treatment with COSELA and chemo is complete, the bone marrow can start making blood cells again.

Ask your care team about myeloprotection during the next scheduled treatment. Your doctor will decide if COSELA is right for you.

To learn more about COSELA and how it works for people with ES-SCLC, visit www.cosela.com/patient/

INDICATION

COSELA is a prescription medicine used to help reduce the occurrence of low blood cell counts caused by damage to bone marrow from chemotherapy. COSELA is used to treat adults taking certain chemotherapies (platinum/etoposide or topotecan) for extensive-stage small cell lung cancer.

COSELA is an injection for intravenous (IV) use given within 4 hours before chemotherapy.

IMPORTANT SAFETY INFORMATION

Do not take COSELA if you have had a serious allergic reaction to COSELA.

What are the possible serious side effects of COSELA?

- Reactions at the site of injection. Pain, irritation, swollen veins, or blood clots may form at or near the injection site. Signs and symptoms may include swelling, pain, redness, tenderness, itchy skin that feels warm to the touch, and the appearance of inflamed veins.
- Serious allergic reactions. Signs and symptoms of an allergic reaction to COSELA can include hives, itching, flushed or pale skin, trouble breathing, swollen face, eyes, tongue or throat, and dizziness or fainting.
- Lung problems (pneumonitis or interstitial lung disease). Signs or symptoms may include trouble breathing at rest or aggravated by exertion, cough, tiredness, unintended weight loss, loss of appetite, and chest pain. Report any new or worsening problems with breathing to your doctor right away.
- COSELA can harm your unborn baby. Females should use effective birth control during treatment with COSELA. COSELA may cause fertility problems in females, which may affect your ability to have children. Talk to your doctor if you have concerns about fertility.

Call your doctor or get medical care right away if you develop any of these symptoms or conditions.

Before taking COSELA, tell your doctor about all of your health conditions, including if you:

- are taking medication for diabetes, heart disease, or multiple sclerosis
- have liver disease
- are pregnant or plan to become pregnant. COSELA can harm your unborn baby. Tell your doctor right away if you become pregnant or think you may be pregnant during treatment with COSELA. Females who are able to become pregnant:

- your doctor should give you a pregnancy test before you start treatment with COSELA
 - you should use an effective method of birth control during your treatment for at least 3 weeks after the last dose of COSELA
 - are breastfeeding or plan to breastfeed. It is not known if COSELA passes into your breast milk.
- Do not breastfeed during treatment and for at least 3 weeks after the last dose of COSELA.

Tell your doctor about all the medications you are currently taking, including prescription and over-the-counter medicines, vitamins, supplements, and herbal supplements. COSELA and other medicines may affect each other. Keep a list of the medicines you take to show to your healthcare provider or pharmacist when you get a new medicine.

The most common side effects of COSELA include:

- fatigue
- low levels of calcium, potassium, or phosphate in your blood
- high levels of a liver enzyme called aspartate aminotransferase
- headache
- infection in the lungs (pneumonia)
- rash
- reactions related to the infusion
- swelling in the legs or arms
- stomach pain
- blood clots
- a high blood sugar level (hyperglycemia)

These are not all of the possible side effects of COSELA. Call your healthcare provider for medical advice about any side effects you may be experiencing. You are encouraged to report any negative side effects to G1 Therapeutics at [1-800-790-G1TX](tel:1-800-790-G1TX), or to the FDA at [1-800-FDA-1088](tel:1-800-FDA-1088) or www.fda.gov/medwatch.

Please see the full [Prescribing Information](#).

1. COSELA (trilaciclib). [Prescribing Information](#). G1 Therapeutics, Inc; 02/2021.
2. Small Cell Lung Cancer. National Organization for Rare Disorders. Updated 2019. Accessed June 25, 2021. <https://rarediseases.org/rare-diseases/small-cell-lung-cancer/>.
3. Lung Cancer – Small Cell: Stages. American Society of Clinical Oncology. Updated January 2021. Accessed June 25, 2021. <https://www.cancer.net/cancer-types/lung-cancer-small-cell/stages>.
4. Chemotherapy Side Effects. American Cancer Society. Updated May 1, 2020. Accessed July 20, 2021. <https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy/chemotherapy-side-effects.html>.
5. Low Red Blood Cell Counts (Anemia). American Cancer Society. Updated February 1, 2020. Accessed March 18, 2021. <https://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts/anemia.html>.
6. Low White Blood Cell Counts (Neutropenia). American Cancer Society. Updated February 1, 2020. Accessed March 18, 2021. <https://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts/neutropenia.html>.

G1 Therapeutics™ and COSELA™ are trademarks of G1 Therapeutics, Inc.

©2021 G1 Therapeutics, Inc. All rights reserved. US-2100251 08/2021

© 2026 Smart + Strong All Rights Reserved.

<http://beta.docker.cancerhealth.com/article/how-much-know-about-certain-chemotherapy-side-effects>