

Chemocare.com

Care During Chemotherapy and Beyond

Estramustine

(es-tra-MUS-teen)

Trade names: Emcyt®

Chemocare.com uses generic drug names in all descriptions of drugs. Emcyt is the trade name for estramustine. In some cases, health care professionals may use the trade name emcyt when referring to the generic drug name estramustine.

Drug type: Estramustine is a combination anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug classified as an "antimicrotubule agent," and it also has hormonal therapy features. (For more detail, see "How this drug works" section below).

What Estramustine Is Used For:

- Estramustine is used to treat prostate cancer that has progressed or spread.

Note: If a drug has been approved for one use, physicians may elect to use this same drug for other problems if they believe it may be helpful.

How Estramustine Is Given:

- Estramustine is given in pill form (a capsule), taken by mouth.
- Estramustine should be taken with water 1 hour before meals or 2 hours after meals to prevent stomach upset.
- The amount of estramustine that you will receive depends on many factors, including your height and weight, your general health or other health problems, and the type of cancer or condition being treated. Your doctor will determine your dose and schedule.

Side Effects:

Important things to remember about the side effects of estramustine:

- Most people do not experience all of the side effects listed.
- Side effects are often predictable in terms of their onset and duration.
- Side effects are almost always reversible and will go away after treatment is complete.
- There are many options to help minimize or prevent side effects.
- There is no relationship between the presence or severity of side effects and the effectiveness of the medication.

The following side effects are common (occurring in greater than 30%) for patients taking estramustine:

- Breast tenderness
- Breast enlargement (mild) (see sexuality)
- Decrease in libido and impotence (see sexuality)
- Increases in blood tests measuring liver function (Lactate Dehydrogenase and AST). These return to normal once treatment is discontinued. (see liver problems).

These side effects are less common side effects (occurring in about 10-29%) of patients receiving estramustine:

- Edema (swelling of face, feet or hands)
- Shortness of breath (see lung problems)
- Nausea
- Diarrhea

Your fertility, meaning your ability to conceive or father a child, may be affected by cisplatin. Please discuss this issue with your health care provider.

Not all side effects are listed above. Some that are rare (occurring in less than 10% of patients) are not listed here. However, you should always inform your health care provider if you experience any unusual symptoms.

When to contact your doctor or health care provider:

Contact your health care provider *immediately*, day or night, if you should experience any of the following symptoms:

- Shortness of breath, difficulty breathing

The following symptoms require medical attention, but are not an emergency. Contact your health care provider *within 24 hours* of noticing any of the following:

- Nausea (interferes with ability to eat and unrelieved with prescribed medication)
- Vomiting (vomiting more than 4-5 times in a 24 hour period)

- Swelling of the feet or ankles. Sudden weight gain

Always inform your health care provider if you experience any unusual symptoms.

Precautions:

- Before starting estramustine treatment, make sure you tell your doctor about any other medications you are taking (including prescription, over-the-counter, vitamins, herbal remedies, etc).
- Milk, milk products, and calcium-rich foods (including calcium containing antacids) or drugs may interfere with the absorption of estramustine. These products should not be taken at the same time as estramustine.
- Estramustine may be inadvisable if you have had a hypersensitivity (allergic) reaction to nitrogen mustard, estradiol or estramustine.
- Estramustine is not recommended for people who have problems with blood clots.
- Do not receive any kind of immunization or vaccination without your doctor's approval while taking estramustine.
- Inform your health care professional if you are pregnant or may be pregnant prior to starting this treatment. Pregnancy category C (use in pregnancy only when benefit to the mother outweighs risk to the fetus).
- For both men and women: Do not conceive a child (get pregnant) while taking estramustine. Barrier methods of contraception, such as condoms, are recommended. Discuss with your doctor when you may safely become pregnant or conceive a child after therapy.
- Do not breast feed while taking this medication.

Self-Care Tips:

- Estramustine should be stored in the refrigerator.
- Drink at least two to three quarts of fluid every 24 hours, unless you are instructed otherwise.
- This medication causes little nausea. But if you should experience nausea, take anti-nausea medications as prescribed by your doctor, and eat small frequent meals. Sucking on lozenges and chewing gum may also help.
- In general, drinking alcoholic beverages should be kept to a minimum or avoided completely. You should discuss this with your doctor.
- Get plenty of rest.
- Maintain good nutrition.
- If you experience symptoms or side effects, be sure to discuss them with your health care team. They can prescribe medications and/or offer other suggestions that are effective in managing such problems.

Monitoring and Testing:

You will be checked regularly by your health care professional while you are taking estramustine, to monitor side effects and check your response to therapy. Periodic blood work to monitor your complete blood count (CBC) as well as the function of other organs (such as your kidneys and liver) will also be ordered by your doctor.

How Estramustine Works:

Cancerous tumors are characterized by cell division, which is no longer controlled as it is in normal tissue. "Normal" cells stop dividing when they come into contact with like cells, a mechanism known as contact inhibition. Cancerous cells lose this ability. Cancer cells no longer have the normal checks and balances in place that control and limit cell division. The process of cell division, whether normal or cancerous cells, is through the cell cycle. The cell cycle goes from the resting phase, through active growing phases, and then to mitosis (division).

The ability of chemotherapy to kill cancer cells depends on its ability to halt cell division. Usually, the drugs work by damaging the RNA or DNA that tells the cell how to copy itself in division. If the cells are unable to divide, they die. The faster the cells are dividing, the more likely it is that chemotherapy will kill the cells, causing the tumor to shrink. They also induce cell suicide (self-death or apoptosis).

Chemotherapy drugs that affect cells only when they are dividing are called cell-cycle specific. Chemotherapy drugs that affect cells when they are at rest are called cell-cycle non-specific. The scheduling of chemotherapy is set based on the type of cells, rate at which they divide, and the time at which a given drug is likely to be effective. This is why chemotherapy is typically given in cycles.

Chemotherapy is most effective at killing cells that are rapidly dividing. Unfortunately, chemotherapy does not know the difference between the cancerous cells and the normal cells. The "normal" cells will grow back and be healthy but in the meantime, side effects occur. The "normal" cells most commonly affected by chemotherapy are the blood cells, the cells in the mouth, stomach and bowel, and the hair follicles; resulting in low blood counts, mouth sores, nausea, diarrhea, and/or hair loss. Different drugs may affect different parts of the body.

Chemotherapy (anti-neoplastic drugs) is divided into five classes based on how they work to kill cancer. Although these drugs are divided into groups, there is some overlap among some of the specific drugs.

Estramustine is an antimicrotubule agent. It is cell cycle specific. It acts on the microtubule structure and function of the cell by attaching to the microtubule-associated proteins. Antimicrotubule agents are also signal transduction inhibitors and are sometimes referred to as targeted therapy.

Estramustine is made up of a combination of the anti-neoplastic substance - nornitrogen mustard and the estrogen derivative - estradiol phosphate. This design was to target cancer cells with estrogen receptors on their surface. However, it was found to be active against estrogen receptor-negative tumor cells as well.

Note: We strongly encourage you to talk with your health care professional about your specific medical condition and treatments. The information contained in this website is meant to be helpful and educational, but is not a substitute for medical advice.

Chemocare.com is designed to provide the latest information about chemotherapy to patients and their families, caregivers and friends. For information about the 4th Angel Mentoring Program visit www.4thangel.org

