Topotecan

What names may be used for this medication?

Topotecan, Hycamtin

How and why is this medicine given?

Topotecan is given by an intravenous (IV) infusion (a slow drip through a needle into your port or through a vein in your arm or hand). We use it most commonly in our office for the treatment of ovarian and cervical cancers. It may be used by itself or combined with other chemotherapy drugs.

How does the medicine work?

Topotecan interferes with the function of an enzyme (called topoisomerase I) used by cells to repair breaks in the DNA (the machinery or “brain” that runs each cell) strand. When this happens, the DNA strand breaks further and cannot be repaired resulting in cell death. Topotecan is not able to discriminate between good cells and cancer cells, so it can affect many parts of your body besides the cancer. Since non-cancer cells are better than the cancer cells at detecting and repairing the damage caused by topotecan, the cancer cells die and your normal cells repair the damage so they can resume their normal function. The side effects you experience from topotecan are a result of this damage prior to your healthy cells having a chance to repair themselves.
Topotecan is cleared from your body predominantly through the kidneys. The kidney’s filtering process prevents the drug from staying in your body too long and causing excessive damage to normal cells. It is therefore important that you keep yourself well hydrated (8-10 glasses of water per day) in efforts to keep the kidneys working at their best. We will monitor your kidney’s function through blood tests performed prior to each infusion. We will also review your list of medications that you take for other medical problems (diabetes, blood pressure, etc.) at each visit to be sure that none of these other medicines are interfering with clearing the topotecan from your body.

How often is this medicine given?

Topotecan is typically given weekly for three consecutive weeks out of a four week cycle (on days 1, 8, and 15 of a 28 day cycle). Topotecan may also be given for 5 consecutive days every 3-4 weeks, but this is less common in our office. The most appropriate administration regimen and the total number of treatment cycles recommended will vary based on your clinical circumstances, but an initial plan will be outlined for you by your doctor. The infusions are given in the infusion center at the Center for Cancer Care and Research (white building located across the parking lot from our office). Prior to each treatment, you will be seen in the office for an exam (typically only once during the treatment cycle, but occasionally prior to each weekly infusion), and blood tests will be reviewed prior to each weekly infusion to be sure it is safe to administer your treatment. It is, of course, very important to keep all of your appointments for chemotherapy and lab testing.

What side effects does this medicine cause?

There are many possible side effects of all chemotherapy drugs, so the following is only inclusive of the most common or serious possibilities from topotecan. You will be asked to complete a symptom form at each visit in order for us to accurately assess the side effects that you may be experiencing. This form helps your doctor be sure that no adverse effects of treatment are overlooked, and it serves to help you
recall which symptoms you may have experienced since your last treatment.

- **Hair loss** is seen with topotecan, but some patients do experience less hair loss than others. The weekly regimens seem to be associated with less hair loss than the 5-day regimen. Regardless, hair growth should return upon completion of treatment.

- **Nausea and vomiting** are not unusual but are less common today than in the past because of much improved anti-nausea medications. You will be given prescriptions for medications to prevent nausea, and it is important that you take them as directed in order for them to be most effective. If you have questions, do not hesitate to call the office.

- **Bone marrow suppression** is when the bone marrow cannot make enough red cells, white cells, or platelets to keep up with demand, and this is a side effect of most chemotherapy medications, including topotecan. All of your blood counts will be monitored regularly throughout treatment.

  - *Anemia* is the result of not enough red blood cells and may cause fatigue, chest pain, shortness of breath, or dizziness.

  - *Neutropenia* results when your white blood cell count goes too low, and this will put you at an increased risk for infection. It is very important that you avoid sick friends and family; be diligent about hand-washing as well. This does not mean that you cannot be out in public, and in fact you can continue to participate in normal activities such as going to church or a movie, etc. If you think you may have an infection or have a fever of 100.5°F or more, call the office immediately.

  - *Thrombocytopenia* is the term for too low of a platelet count. This can lead to excessive bruising or bleeding with only minor injury such as brushing your teeth or blowing your nose.

- **Mucositis** is sores/ulcers in the mouth that can cause pain and difficulty eating or swallowing. This is not common but may occur with topotecan. This can be minimized with good oral hygiene and a warm salt-water solution gargled after each meal. Prescription medication is also available if these steps are ineffective at resolving your symptoms.
Flu-like symptoms with headache, myalgias, and arthralgias (aches and pains in the muscles and joints), and fatigue are commonly experienced for a few days to a week following a topotecan infusion. Over the counter agents such as ibuprofen and acetaminophen typically provide adequate relief, but prescription pain medicine can be given if needed.

Mild diarrhea or constipation may be seen with topotecan. For your comfort, keep your bowels regular with a regimen that works best for you and your lifestyle. If you develop diarrhea that is not controlled with over the counter medications after 2 days or you develop constipation to the point that you do not move your bowels for 3 days, contact our office.

Topotecan can cause problems with fertility. It is not uncommon to stop having periods while receiving topotecan, but these typically return to normal after stopping treatment. Your doctor will discuss this in more detail if applicable to you.

If you are pregnant or become pregnant during therapy, you should notify your doctor immediately.