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COMPREHENSIVE CARE FOR WOMEN WITH GYNECOLOGIC CANCER

Paclitaxel – Protein Bound

What names may be used for this medication?

Protein Bound Paclitaxel, Albumin Bound Paclitaxel, Abraxane; it is part of a group of drugs called Taxanes

How and why is this medicine given?

Protein bound paclitaxel 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) to treat many different types of cancers. We use it most commonly in our office for the treatment of recurrent ovarian cancer. It may be used by itself or combined with other chemotherapy drugs.

How does the medicine work?

Protein bound paclitaxel binds to structures called microtubules within the cell. These structures are used to separate the cell's DNA (the machinery or "brain" that runs each cell) during cell division so that each new daughter-cell will have its own DNA. Protein bound paclitaxel binding prevents the separation of the DNA and thus prevents the cell itself from reproducing. Protein bound paclitaxel 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 repairing the damage caused by protein bound paclitaxel, the cancer cells die and your normal cells repair the damage so they can resume their normal function. The side effects you experience from protein bound paclitaxel are a result of this damage prior to your healthy cells having a chance to repair themselves.

Protein bound paclitaxel is cleared from your body through the liver by your biliary system. The enzyme systems that cause this metabolism can be influenced by other medications. It is therefore very important for you to be sure your list of medications that you take for other health problems (such as blood pressure, diabetes, etc.) stays accurate and up to date in our office. We will review your medication list at each visit, and we will monitor your liver's function through blood tests performed prior to each treatment cycle.

How often is this medicine given?

Protein bound paclitaxel is typically given once every 3-4 weeks (every 21-28 days) or weekly (every 7 days). The dosing interval and total number of treatments 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 protein bound paclitaxel. The potential side effects are similar to native paclitaxel, but the protein binding is designed to limit or minimize associated drug toxicity. 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 typically complete with protein bound paclitaxel, but some patients do experience less hair loss than others. Hair growth should return upon completion of treatment.
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- ❖ Nausea and vomiting are sometimes experienced 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.
 - ❖ Nerve toxicity is seen in about 60% of patients taking protein bound paclitaxel. Numbness, tingling, burning, or pain in your hands or feet, or ringing in your ears may be signs of nerve injury. These symptoms are more likely in patients with diabetes, heavy alcohol use, or when protein bound paclitaxel is given with other neurotoxic drugs (such as cisplatin). Please report these symptoms if present at your next office visit. These symptoms may or may not resolve after stopping treatment and can lead to difficulties with daily activities such as clasping jewelry, buttoning clothes, or clumsiness with walking among others.
 - ❖ 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 protein bound paclitaxel. 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 can occur with protein bound paclitaxel. 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.
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- ❖ 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 protein bound paclitaxel 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 is occasionally seen with protein bound paclitaxel. Over the counter anti-diarrhea medications are usually adequate at controlling these symptoms. Some patients actually develop constipation because of medication they take for their diarrhea or for the myalgias mentioned previously. For your comfort, keep your bowels regular with a regimen that works best for you and your lifestyle.
 - ❖ Vision changes (eye irritation, blurry vision) are seen in about 10-15% of patients taking protein bound paclitaxel.
 - ❖ Allergic reactions to protein bound paclitaxel can occur. This typically presents during the initial few minutes of an infusion with a rash/hives, itching, lowered blood pressure, and occasional difficulty breathing. This is uncommon.
 - ❖ Protein bound paclitaxel can cause problems with fertility. It is not uncommon to stop having periods while receiving protein bound paclitaxel, 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.

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