

Hepatitis C Treatment and Anemia

Understanding Hemoglobin and Procrit/Epogen

Why Your Body Needs Hemoglobin

Just like a car, your body needs fuel to run. Hemoglobin, or Hb, is important because it transports oxygen to your blood to all parts of your body. Think of the oxygen carried by hemoglobin as the fuel your body needs to stay alive and run efficiently.

Hemoglobin is a substance found in your red blood cells. Although other substances in your body, such as water and plasma, also carry oxygen, hemoglobin is unique because it can carry four times as much oxygen throughout the body.

How Hemoglobin Fuels Your Body

Because hemoglobin contains iron, it is an excellent vehicle for transporting oxygen and carbon dioxide. When red blood cells fill the air sacs of your lungs, they take up oxygen. The hemoglobin in the red cells combines with the oxygen to form a compound called oxyhemoglobin. When the red cells travel through the rest of your body, they give up the oxygen to the tissues. In the tissues, hemoglobin takes up carbon dioxide and releases it in the air sacs of the lungs. The carbon dioxide is then exhaled.

What Causes Anemia

Anemia develops from abnormally low levels of red blood cells or hemoglobin. A severely anemic person's blood cannot carry enough oxygen to meet the needs of the body tissues. As a result, over time the person becomes tired physically and mentally. When on interferon and ribavirin treatment for hepatitis C, a reduction in hemoglobin very commonly occurs and in most cases, is managed at levels below the normal laboratory ranges, returning to normal after treatment is completed or stopped. Anemia is an expected side effect of treatment with interferon and ribavirin.

In addition to anemia caused by interferon and ribavirin, anemia can be caused by kidney disease, lack of vitamin B12 in your diet, lack of folic acid in your diet, an inherited blood disorder such as sickle cell anemia, blood loss from an injury or accident, gastrointestinal bleeding, lack of iron.

Symptoms of Anemia

Have you ever held your breath for longer than a minute? Do you remember how tired you were afterward? With anemia, you would feel tired all the time. Even extra sleep will not help an anemic person feel better. If you are anemic, you may experience:

- Extreme fatigue and weakness
- Feeling tired
- Difficulty sleeping
- Difficult thinking clearly
- Headache
- Dizziness or fainting
- Paleness

Treatment for Anemia

Your doctor will monitor your anemia by looking at your blood test results. It is not uncommon for hemoglobin values less than normal to be followed closely without any change in medication or other treatments. However, there may be a time when your doctor discusses a separate treatment called PROCRIT or EPOGEN for the anemia and the side effects you are experiencing.

PROCRIT or EPOGEN is identical to erythropoietin (e-RITH-ro-POI-e-tin), the substance your kidneys normally make. It stimulates your bone marrow to make new red blood cells. As a result, more red blood cells can carry oxygen to the body, which may increase your energy level and provide relief from the symptoms of anemia, such as fatigue and shortness of breath.

PROCRIT or EPOGEN is available only by prescription. It is an injection given underneath the skin like the injection of interferon you are already receiving. Your doctor will tell you what dosage is right for you.

Precautions

Before administering this medication, tell your doctor or pharmacist if you are allergic to epoetin, human albumin, or any other drugs. Always tell your doctor and pharmacist what prescription and nonprescription medications you are taking, including vitamins.

Take Charge of Your Health

During your hepatitis C treatment period, you will have your blood drawn on a regular basis to check many lab values, including hemoglobin. It is important to have the labs drawn when instructed to do so by your doctor's office.

Plan and limit activities to save energy and prevent fatigue.

Ask family and friends to pitch in with things like child care, shopping, house cleaning or driving.

Make sure you have a nutritionally balanced diet and are drinking plenty of water.



Administering Your Medication

Store the medication in the refrigerator. Do not allow medication to freeze. Take your next dose from the refrigerator 1 hour before using it; place it in a clean, dry area to allow it to warm to room temperature. Avoid shaking the vial. Use a vial only once, and do not reenter a needle into a vial. Discard unused portions and outdated medication.

Before you administer your medication, look at the solution closely. It should be clear and free of floating material. Observe the solution container to make sure there are no leaks. Do not use the solution if it is discolored, if it contains particles, or if the container leaks. Use a new solution and contact the pharmacy to report the damaged one.

It is important that you use your medication exactly as directed. Do not change your dosing schedule without talking to your doctor's office. Do not stop your therapy on your own because your ability to continue interferon and ribavirin could be hampered. Call the doctor if you have any questions or concerns.

Side Effects

Side effects are uncommon but they can occur. Procrit or Epogen sometimes causes a flu-like reaction with chills, shivering, sweating, muscle aches, and bone aches. These effects may appear 1-2 hours after an injection and usually go away within 12 hours. They may go away during treatment as your body adapts to the medication. However, tell your doctor if any of these problems continues or worsens. Your doctor should carefully monitor your blood pressure and hemoglobin for rapid increases, which should be avoided.

Complete Product Information is available from your pharmacist. The information will provide you with a complete list of possible side effects and other details concerning the medication you have been prescribed.

Results of Medication

This medication is intended to help your body make red blood cells. It is not effective in all patients when prescribed for anemia, even when taken as directed. Your doctor will monitor the success of the medication in terms of increasing hemoglobin levels and improved quality of life relating to the symptoms of anemia you are experiencing.