Using IV Steroids to Treat Multiple Sclerosis (MS) Attacks

Intravenous (IV) steroids are a type of medicine given into the vein through a tube called an IV. Steroids may be used to treat a sudden MS attack also known as an exacerbation or relapse.

An attack may last several days or weeks. During an attack, you may have:

- More severe MS symptoms
- New symptoms that last more than 24 hours

Sometimes other factors can increase MS symptoms such as:

- An infection
- Menstrual cycle changes
- Emotional stress
- Over-exposure to heat

These factors can lead to a short term problem called a pseudo-exacerbation, but it is not the same as an attack.

Treatment for a MS Attack

Recovery from an attack will vary from person to person. Some people have no lasting effects, while others may have more impairment with each attack. IV steroids such as Solu-Medrol, a brand of methylprednisolone, are used to shorten the recovery time from an attack. They reduce the inflammation in the central nervous system.

Not every MS attack is treated with IV steroids. The use of steroids is often based on the amount of impairment caused by the attack.
How are IV steroids given?

IV steroids are often ordered one time each day for three to five days. Larger doses may be broken up into multiple doses each day. In some cases, IV steroids may be ordered daily for one to three days on an every other month schedule.

The steroids may be given at:

- Your home by a home health nurse
- An outpatient clinic or office
- The hospital

An IV line is started each day or it may be left in place for several days of treatment. Your blood pressure will be checked. You may have blood drawn before getting the steroids to check your sodium, potassium and glucose (blood sugar) levels.

Smaller doses of steroids may be given quickly. It may take one to two hours to get larger doses of steroids through your IV. If you get the medicine in your home, you and your caregiver may be taught how to remove the tubing after the medicine is in and how to care for your IV. You may return to your normal daily activities, including driving after the treatment.

What are the side effects of IV steroids?

Your doctor may be cautious about when or how often you get steroids because there can be effects from steroid use over time.

Common side effects may include:

- Stomach irritation such as heartburn or indigestion. Let your doctor know if you have a history of stomach ulcers. Medicine may be ordered to prevent this side effect during your treatment course.
- Increased or nervous energy
- Flushing of the face, neck or chest
- Rapid heart rate
- Retaining fluid – Limit your salt intake during your treatment time.
- Metallic taste in your mouth
• Insomnia
• Mood changes such as being more irritable, nervous, restless, euphoric
• Decrease in potassium levels – Eat potassium rich foods, such as bananas, orange juice, cantaloupe, skim milk, potatoes, broccoli or beans to help with this.
• Increase in blood sugar (glucose) levels. Steroids can stimulate your appetite. Watch your calories and limit high sugar, high carbohydrate foods. If you have diabetes, check with your doctor about testing your blood sugar more often. You may need your diabetes medicines adjusted during treatment.

**Long term side effects of steroids may include:**
• Bone thinning called osteoporosis
• Stomach ulcers
• Eye problems like cataracts
• Weight gain
• Acne
• Diabetes
• Avascular Necrosis (rare) – a condition where bone tissue dies and can lead to collapse of a joint

**How soon can I expect results from the IV steroids?**
Results from IV steroids vary from person to person. Some people feel symptoms ease within the first few treatments. Others may notice only a slow improvement that may take up to six weeks after treatment is done.

**Are there any alternatives to IV steroids?**
Use of IV steroids may not be possible because of poor IV access or insurance coverage issues.

Sometimes, high dose of steroids tablets may be ordered. You would have to take fifty tablets to equal the dose of IV steroids.
One alternative is for the IV drug to be mixed with a solution by the pharmacist. You would be given the medicine in a syringe. You would need to mix a certain amount with a glass of juice to drink each day for three to five days.

Another way is for a pharmacist to compound the high dose of steroid into four capsules that are taken daily for three to five days.

If you have other questions, please talk to your doctor, nurse or pharmacist.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.