

ReCiGen[®]

One pre-filled syringe with 0.5 ml Solution for subcutaneous injection contains:

Interferon beta-1a 12 million IU (44 microgram) Mannitol, L-Methionine, Poloxamer 188, Benzyl alcohol, Acetate Buffer, Water for injection.

Clinical Pharmacology:

Interferons are a family of naturally occurring proteins that are produced by eukaryotic cells in response to viral infection and other biological inducers. Interferons possess immunomodulatory, antiviral and antiproliferative biological activities. They exert their biological effects by binding to specific receptors on the surface of cells. The specific interferon-induced proteins and mechanisms by which interferon beta-1a exerts its effects in multiple sclerosis have not been fully defined.

Manufacturer:

ReCiGen[®] is produced by **Singapore Biotech**.

Indication:

ReCiGen[®] is used for treatment of relapsing-remitting MS. It has been shown to reduce the number and the severity of relapses and to slow the progression of disability.

Contraindication:

- Pregnancy
- Breast feeding
- Depression
- Seizures that are not adequately controlled by treatment
- Allergy or sensitivity to any of the components of the medicine
- Age under 16 years old

Precaution for use:

- The effect of **ReCiGen[®]** may not be noticed immediately. Use drug continually as ordered by your neurologist.
- Consult with your physician, if you are using any other treatment.
- Keep out of the reach of children.
- If you are pregnant or planning to become pregnant, you must inform your physician immediately.
- **ReCiGen[®]** is a prescription only medicine.
- This medicine has been prescribed for you personally and you should not pass it to others.
- Do not stop taking the medicine without consulting your physician.
- If you have depression, anxiety, liver diseases, problems with your thyroid gland, blood problems, epilepsy or serious medical problems, tell your doctor before taking **ReCiGen[®]**.
- If you have any allergic reaction, tell your doctor.
- Do not change the dose or interval of taking medicine without consulting your physician.

Warning:

MS itself or its treatment might influence your ability to drive. You can talk about this with your physician.

Interaction:

ReCiGen[®] does not normally interact with other medicines.

Instruction for use:

ReCiGen[®] is given by injection under the skin (subcutaneous injection) on the same three days a week (for example, Monday, Wednesday and Friday). Your injections should be at least 48 hours apart so it is best to take them the same time (preferably in the evening) each day.

When first starting treatment with **ReCiGen[®]**, you should gradually increase the dose over 4 weeks, starting at 20% of the prescribed dose for the first 2 weeks, half-dose for the second 2 weeks (weeks 3 and 4), and then the full dose prescribed by your physician.

Target dose 44 mcg (12 MIU) 3 times/week:

- Initial (20% of final dose): 8.8 mcg (0.1 ml) 3 times/week for 2 weeks
- Titration (50% of final dose): 22 mcg (0.25 ml) 3 times/week for 2 weeks
- **ReCiGen 44:** 44 mcg (0.5 ml) 3 times/week

Following the administration of each dose, any residual product remaining in the syringe should be discarded in a safe and proper manner.

Attention before injection:

Choose the injection site. The best sites for giving yourself an injection are those areas with a layer of fat between the skin and muscle, like your thigh, the outer surface of your upper arm, your stomach or buttocks.

Do not use the area near your navel or waistline. If you are very thin, use only the thigh or outer surface of the arm for injection.

Use a different site each time you inject (thigh, hip, stomach or upper arm). It is important that you change your injection site each time **ReCiGen[®]** is injected. This will lessen the chance of you having a serious skin reaction at the spot where you inject. Do not inject **ReCiGen[®]** into an area of your body where the skin is irritated, reddened, bruised, infected or abnormal in any way.

Keep a record of the date and location of each injection.

Injection step by step:

Always use a new, unopened, prefilled syringe of **ReCiGen[®]** for each injection.

Never reuse syringes.

Before you begin, gather all of the supplies listed below:

- **ReCiGen[®]** prefilled syringe with needle.
- You may wish to remove your syringe from the refrigerator at least 30 minutes prior to use and let it adjust to room temperature so the liquid is not cold.
- Do not heat or microwave a syringe.
- Alcohol swabs (wipes) or cotton balls and rubbing alcohol
- A pain or fever reducing medication, if your doctor has recommended that you take this prior to, at the same time, or after you give yourself **ReCiGen[®]** to help minimize the fever, chills, sweating and muscle aches (flu-like symptoms) that may occur.

Check the expiration date; do not use if the medication is expired. The expiration date is printed on the syringe, plastic syringe packaging and carton.

Remove the **ReCiGen[®]** syringe from the plastic packaging. Keep the needle capped.

Examine the contents of the syringe carefully. The liquid should be clear to slightly yellow. Do not use if the liquid is cloudy, discolored or contains particles.

Wash your hands thoroughly with soap before preparing to inject the medication.

Clean the injection site with an alcohol swab (wipe) or cotton ball with rubbing alcohol using a circular motion.

To avoid stinging, you should let your skin dry before you inject **ReCiGen[®]**.

Remove the needle cap from the syringe needle.

If your doctor has told you to use less than the full 0.5 ml dose, slowly push the plunger in until the amount of medication left in the syringe is the amount your doctor told you to use.

Use your thumb and forefinger to pinch a pad of skin surrounding the cleaned injection site. Hold the syringe like a pencil with your other hand. While still pinching the skin, swiftly insert the needle like a dart at about a 90 degree angle (just under the skin) into the pad of tissue.

After the needle is in, remove the hand that you used to pinch your skin and inject the drug using a slow, steady push on the plunger until all the medication is injected and the syringe is empty.

Withdraw the needle and apply gentle pressure to the injection site with a dry cotton ball or sterile gauze. Applying a cold compress or ice pack to the injection site after injection may help reduce local skin reactions.

After 2 hours, check the injection site for redness, swelling, or tenderness. If you have a skin reaction and it doesn't clear up in a few days, contact your doctor or nurse.

If it is possible, the first injection should be performed under the supervision of a physician or a qualified nurse.

Special advice:

Take a missed dose as soon as you remember or are able to take it.

If it is close to the time for your next dose, skip the missed dose and go back to your normal time.

Do not take **ReCiGen[®]** on two consecutive days.

Do not take 2 doses at the same time or extra doses.

If you accidentally take more than your prescribed dose, or take it on two consecutive days, call your physician right away.

Do not change the dose, brand, or stop this drug. Talk with the physician.

You can get the injection guide leaflet from pharmacies.

Side effects:

Flu-like symptoms. Most patients have flu-like symptoms (fever, chills, sweating, muscle aches and tiredness). For many patients, these symptoms will lessen or go away over time. You should talk to your physician about whether you should take a medication for pain or fever reduction before or after taking your dose of **ReCiGen[®]**.

Skin reactions. Soreness, redness, pain, bruising or swelling may occur at the place of injection.

Depression and anxiety. Some patients taking interferons have become very depressed and or anxious. There have been patients taking interferons who have had thoughts about killing themselves. If you feel sad or hopeless you should tell a friend or family member right away and call your physician immediately.

Liver problems. Your liver function may be affected. If you develop symptoms of changes in your liver, including yellowing of the skin and whites of the eyes and easy bruising, call your doctor immediately.

Blood problems. You may have a drop in the levels of infection-fighting blood cells (white blood cells), red blood cells or cells that help to form blood clots. If the drop in levels are severe, they can lessen your ability to fight infections, make you feel tired or sluggish or cause you to bruise or bleed easily.

Thyroid problems. Your thyroid function may change. Symptoms of changes in the function of your thyroid include feeling cold or hot all the time, change in your weight (gain or loss) without a change in your diet or amount of exercise you are getting.

Allergic reactions. Some patients have had hives, rash, skin bumps or itching while they were taking **ReCiGen[®]**. Other patients have had more serious allergic reactions such as difficulty breathing, or feeling lightheaded. You should tell your physician if you think you are having an allergic reaction.

Vascular Problems. Thrombotic microangiopathy.

Renal Problems. Nephrotic syndrome.

• **Upset stomach or throwing up.** Many small meals, good mouth care, sucking hard sugar-free candy or chewing sugar-free gum may help.

Storage instruction:

ReCiGen[®] should be stored refrigerated between 2-8°C.

Do not freeze.

Do not use beyond the expiration date printed on cartons.

Each syringe is intended for single use.

Unused portions should be discarded.

Protect from heat.