Atgam® (Anti-thymocyte Globulin [Equine])

Pronounced: at gam (an te THY moe site GLOB yu lin, E kwine)

Classification: Immune Globulin, Immunosuppressant Agent, Polyclonal Antibody

About Atgam® (Anti-thymocyte Globulin [Equine])

Atgam slows or stops the T-lymphocyte cells from attacking the bone marrow so your blood is able to make the cells it needs.

What is Atgam?

Atgam is a polyclonal antibody, or an immune globulin, given as an intravenous (IV, into a vein) infusion. Atgam is used to fight a type of white blood cell called a T-lymphocyte (also called a thymocyte or T-cell). T-lymphocytes are part of your immune system. In some blood disorders (aplastic anemia, Myelodysplastic Syndromes [MDS]), T-lymphocytes might attack your bone marrow by mistake. This makes it hard for your bone marrow to make healthy blood cells. Atgam slows or stops the T-lymphocyte cells from attacking the bone marrow so your blood is able to make the cells it needs.

Atgam is made by taking donated human white blood cells (T-lymphocytes) and injecting them into a horse. The horse’s blood makes its own antibodies (a blood protein) against these T-lymphocytes. These antibodies are then taken from the horse’s blood and made into Atgam. When Atgam is infused into a patient, that person’s body is able to take the antibodies (made by the horse) and use them to slow down or stop their own T-lymphocytes from attacking the bone marrow.

Who needs an Atgam infusion?

Atgam is approved in the United States:

- To manage moderate to severe aplastic anemia (a blood disorder that damages stem cells).
- To prevent the body from rejecting a kidney transplant.

There are cases where Atgam may be used for other blood disorders, including:

- To prevent or lessen the effects of graft versus host disease (GvHD) before or after a stem cell transplant.
- To help bone marrow make new blood cells in patients with MDS.

Your healthcare team will decide if Atgam is right for your treatment plan. This will be based on many things, including your blood work, your disease, and other treatments you may have received.

How is Atgam given?

Atgam is given as an intravenous (IV, into a vein) infusion, usually in the hospital. You will need to be watched closely during the infusion, which can take several hours.

One of the most common side effects of Atgam is an allergic reaction. Your healthcare team might do a “skin test” before you receive the infusion to see if you might be allergic to Atgam. Your provider will prick your skin with a tiny dose of Atgam and watch for a skin reaction. Depending on these results, you may be given medications before the infusion to stop or lessen an allergic reaction. These include a steroid (methylprednisolone), an H1 receptor antagonist (diphenhydramine), and an antipyretic (acetaminophen).

When the infusion starts, you will be watched closely for any signs of an allergic reaction or any other side effects. Your blood
pressure, temperature, and pulse oximetry (oxygen levels in your blood) will be checked many times.

**What are the risks of receiving Atgam?**

Some of the most common risks of an Atgam infusion include:

- **Allergic reaction, including anaphylaxis.** Your healthcare team will watch for:
  - Fever.
  - Chills.
  - Itching.
  - Swelling.
  - Hives.
  - Trouble breathing.
  - Low blood pressure.
  - Nausea/vomiting.
- **A weakened immune system.** This includes:
  - Low white blood cell count.
  - Low platelet count.
  - Rash.

Atgam is made from blood products, so there is a small risk of the medicine being contaminated with an infectious agent. However, several steps are taken during the manufacturing process to prevent this from happening.

You should avoid having live vaccines while receiving this medication, as they may not work as well. These include herpes zoster (Zostavax) for shingles prevention, oral polio, measles, nasal flu vaccine (FluMist®), rotovirus, and yellow fever vaccines.

If you have an infection or are being treated for an infection, let your care team know right away before receiving Atgam.

**When should I call my provider?**

During the infusion, your care team will be watching you closely. Be sure to tell them right away if anything feels different. Once you are done the infusion and cleared by your team to go home, there are a few things to look for. Call your provider right away if you experience:

- Shortness of breath.
- Chest pain, dizziness.
- Fever or chills.

There is a chance of "serum sickness" after receiving Atgam. Serum sickness can happen right away to up to 1-2 weeks after your first dose. Call your provider if you have:

- Rash.
- Fever.
- Joint pain and aches.

**Reproductive Concerns**

Talk with your provider about whether becoming pregnant or fathering a child is safe to do while receiving this medication. You should not breastfeed while taking this medication.