How Does Huntsman Cancer Institute (HCI) Treat Myeloma?

Myeloma experts at HCI offer a broad variety of therapies. For patients who are eligible, high-dose chemotherapy followed by autologous transplant is the preferred initial treatment. For patients who are not eligible for an autologous transplant, we offer a number of therapy options.

Whether treated with a stem cell transplant or not, most patients will receive maintenance therapy after the initial treatment to fight any myeloma cells still in the body. Myeloma cells are not easily destroyed and some will survive even after high-dose chemotherapy. This is because chemotherapy targets actively growing myeloma cells, yet some myeloma cells are dormant or out-of-cycle. Maintenance therapy involves taking a combination of drugs to keep the disease under control for a prolonged period of time.

What Is an Autologous Stem Cell Transplant?

Autologous means “from the same individual.” In an autologous stem cell transplant, you serve as your own donor. Your own healthy bone marrow stem cells are collected from the blood before giving high-dose chemotherapy, and then given back after chemotherapy.

The purpose of the stem cell transplant is to be able to give high-dose chemotherapy safely, reducing the risks of complications. High-dose chemotherapy is very effective at killing myeloma cells, but it also destroys some healthy cells in the process. Giving patients back their own healthy stem cells after high-dose chemotherapy allows the bone marrow cells to recover sooner.

How Do I Know if I Am Eligible for an Autologous Transplant?

You need to be in relatively good overall health to have an autologous transplant. There are some medical conditions that make an autologous transplant too risky. Yet most patients can proceed with this treatment if other medical conditions are under control.

What Is an Allogeneic Transplant and Is It Another Treatment Option?

For an allogeneic stem cell transplant, you receive stem cells from another person. In many cases, the donor is a relative of yours, such as a brother or sister. At HCI, we rarely do allogeneic stem cell transplants to treat myeloma. Studies have shown this type of transplant is associated with a 25% mortality rate due to associated complications, such as graft-versus-host disease. This is when the donated cells attack the recipient’s tissues.

In contrast, the mortality rate with an autologous stem cell transplant is much lower, between 1-3%. Also, almost all studies using allogeneic transplants do not show that allogeneic transplants have a higher success rate than autologous transplants.

How Is the Best Treatment Determined?

When you visit the Myeloma Program at HCI, we first find out whether or not treatment is necessary. Some types of myeloma—or related conditions such as MGUS and smoldering myeloma—may not require treatment, but need careful monitoring to see if the disease progresses.
We run many tests to make a decision. The results will tell us more about your particular condition. Our specialists will also discuss any other factors that can impact your treatment. Decisions are made on a case-by-case basis.

Can I Come to HCI If I Have Already Started Treatment with Another Doctor?
Yes, you can transfer to the Myeloma Program at HCI at any stage of treatment.
All new patients undergo diagnostic tests before having a consultation with our specialists. These could include one or several of the following:

- Bone marrow biopsy
- Echocardiogram (EKG)
- Imaging tests (PET scan/MRI)
- Pulmonary function test
- Urine and blood tests

How Long Should I Plan to Stay If I Come to HCI for Treatment?
Plan on spending four to five days in Salt Lake City for a new patient consultation. This includes two full days of diagnostic testing and the consultation. If you receive an autologous transplant, you will need to stay about one month. At HCI most transplants are done in the outpatient setting, which means you will visit the clinic but not stay in the hospital. However, we recommend that you stay close to the hospital so you have immediate access to our medical team if you need it.
If you need help finding housing options, call Patient and Family Support at 801-585-9755 or call Patient and Family Housing at 801-521-4763. If you have a significant health condition in addition to myeloma, our specialists may recommend admitting you to the hospital for the transplant. This means you would stay at the hospital.

How Many Myeloma Patients Has HCI Treated?
Our myeloma specialists are world-renowned experts in the field of blood-related cancers. More than 1,000 patients have been referred to HCI's Myeloma Program since it began in 2007. As of 2015, HCI manages the care of approximately 400 myeloma patients on an ongoing basis.

What Types of Accreditation Does HCI’s Myeloma Program Have?
Our program is accredited by the Foundation for the Accreditation of Cellular Therapy (FACT). In addition, HCI is a National Cancer Institute-Designated Cancer Center. This means HCI has met, and continues to exceed, standards of excellence in scientific research, collaboration, education, and cancer treatment.

What Research Is Being Done at HCI to Improve Myeloma Treatment?
Research at HCI aims to find a cure for myeloma. We do two kinds of research: clinical trials and laboratory research. Both types of research focus on developing immunotherapies, which will, in addition to standard treatments, help to keep myeloma under control for prolonged periods of time or even achieve a cure.
Clinical trials study new therapy approaches or changes to already approved myeloma treatments. At HCI the focus is on the development of more effective and less toxic immunotherapies. You may be asked to participate in a clinical trial, but this is entirely your choice.
Our laboratory research focuses on developing new immunotherapies for myeloma. As a first step, we determine whether your own immune system fights the myeloma cells. To do this, we measure immune responses in your bone marrow and blood. You may be asked to give a bone marrow or blood sample for research purposes, but again it is your choice to participate or not.

Does HCI’s Myeloma Program Treat Diseases Other Than Myeloma?
Yes. Our specialists treat and evaluate many myeloma-related diseases, including amyloidosis, MGUS, and plasmacytoma.